



CONSULTING GROUP



A POSTRETIREMENT WELFARE BENEFIT

GASB 45 ACTUARIAL VALUATION

For:

Town of Foster, RI

As of:

July 1, 2015

Prepared by:
USI Consulting Group



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December 30, 2015

Town of Foster, RI
181 Howard Hill Road
Foster, RI 02825

RE: July 1, 2015 Actuarial Valuation of Postretirement Welfare Benefits

We enclose the report covering the actuarial valuation of the postretirement medical insurance plan for the employees of the Town of Foster, RI as of July 1, 2015.

The financial results of the actuarial valuation are summarized in the report. The Executive Summary highlights the results of the valuation, including the calculation of the Annual OPEB Cost (expense) for the fiscal year beginning July 1, 2015. As allowed by GASB 45, the valuation results have been projected forward to fiscal years ending June 30, 2016 and June 30, 2017.

Additional information summarizing census information, actuarial assumptions, and the methodology for developing them, as well as a glossary of selected terms used in this study, are also included in the report.

All calculations are made in accordance with our understanding of the provisions of the Statement of Governmental Accounting Standards Board Number 45 (GASB 45). We believe this report provides all of the information your auditor requires. We would appreciate a copy of the footnote to your financial statement related to the postretirement benefits.

Respectfully submitted,

USI Consulting Group

A handwritten signature in blue ink that reads "Robert W. Webb".

Robert W. Webb, FSA, EA, MAAA
Vice President and Actuary

USI Consulting Group

A handwritten signature in blue ink that reads "Denise Reed".

Denise Reed, ASA, MAAA
OPEB Consultant & Actuary

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Section I

Executive Summary

The section presents the results of the July 1, 2015 valuation. The first section provides a brief summary of the valuation results. The Executive Summary Detail provides a more detailed development of the expenses and liabilities. Items I through V show the development of the Annual Required Contribution (ARC). Items VI through IX show the calculation of the Annual OPEB Cost.

EXECUTIVE SUMMARY

Introduction

This report details the development of the Annual OPEB Cost for the Fiscal Year ending June 30, 2016. Estimated June 30, 2016 and June 30, 2017 disclosures are included in Section III.

The liabilities developed in this report are only valid for purposes of meeting employer accounting requirements as required by Statement of Governmental Accounting Standards Number 45 (GASB 45). Liabilities developed for other purposes could be significantly different than those shown in this report.

Summary of Results

The Actuarial Accrued Liability and Normal Cost are calculated as of the valuation date. The Annual OPEB Cost and Expected Benefit Payments are for the year beginning on the valuation date. Additional detail is developed in the exhibits included in this actuarial valuation report.

Fiscal Year Ending June 30, 2016

<i>Beginning of Year Net OPEB Obligation (NOO)</i>	(\$128,609)
<i>Actuarial Accrued Liability (AAL)</i>	\$386,755
<i>Actuarial Value of Assets</i>	\$131,206
<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	\$255,549
<i>Annual Required Contribution (30 year amortization)</i>	\$36,727
<i>Annual OPEB Cost</i>	\$39,537
<i>Expected Benefit Payments</i>	\$21,405

Fiscal Year Ending June 30, 2017

<i>Beginning of Year Net OPEB Obligation (NOO)</i>	(\$130,477)
<i>Actuarial Accrued Liability (AAL)</i>	\$401,740
<i>Actuarial Value of Assets</i>	\$156,454
<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	\$245,286
<i>Annual Required Contribution (30 year amortization)</i>	\$37,235
<i>Annual OPEB Cost</i>	\$40,529
<i>Expected Benefit Payments</i>	\$32,510

Economic Assumptions

The employer, with the approval of the auditor, is responsible for selecting the economic assumptions as of the disclosure date. The following table details the selected economic assumptions for the current fiscal year:

<u>Assumption Selection Date</u>	<u>July 1, 2015</u>
<i>Funding Interest Rate*</i>	4.00%
<i>2015 Medical Trend Rates</i>	9.00%
<i>Ultimate Medical Trend Rate</i>	5.00%
<i>Year Ultimate Trend Rates Reached</i>	2019
<i>Annual Payroll Increase</i>	2.50%

* Reflects current funding policy

EXECUTIVE SUMMARY (cont)

Changes From Prior Valuation

The assumption for the annual trend in the increase in health costs was reset at 9.0% for 2015, grading down 1.0% per annum to an ultimate trend rate of 5.0% for years 2019 and later. The mortality was updated to a fully generational table, with improvement scale AA. This valuation reflects the plan eligibility and cost sharing changes. The impact on plan liabilities is shown in Appendix II.

Experience Gains and Losses

The plan had an accumulated experience gain over the past two years, primarily due to favorable demographic changes. The impact of the gain on the actuarial accrued liability is provided in Appendix II.

Accounting for Postretirement Benefits

Government Accounting Standard No. 45 (GAS 45) addresses the accounting and financial reporting requirements by Employers for Postemployment Benefits Other than Pensions (OPEB). Employers that are required to follow Government Accounting Standards are subject to this standard. The statement does not require that the benefits be pre-funded, however, it defines a financial framework for assessing the costs, design, and sustainability of OPEBs offered by employers.

This report presents the annual expense required to be recognized by the plan sponsor for purposes of complying with the accounting requirements of Governmental Accounting Standards Board Statement No. 45. This report also provides the information needed to prepare the footnote in your financial statements related to your postretirement benefit plans.

The Annual Required Contribution (ARC) and Annual OPEB Cost are developed in the Executive Summary Detail included in this section. Section III presents the disclosure information, including the development of the Net OPEB obligation based on expected contributions / benefits to be paid during the fiscal year.

Actuarial Certification

The financial results of the actuarial valuation are summarized in this report. The valuation has been prepared as of July 1, 2015.

The detail charts included in this Executive Summary highlight the results of the valuation. Additional information summarizing the census, actuarial assumptions, plan provisions, and a glossary of selected terms used in this study are also included in this report.

The valuation is based on the September 1, 2013 census data and July 1, 2015 plan information as provided by the employer. We have reviewed both the census and financial data for reasonableness, but have not completed an independent audit of the information.

EXECUTIVE SUMMARY (cont)

Actuarial Certification (cont.)

All costs, liabilities, and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. The calculations are consistent and undertaken with our understanding of Statement of Governmental Accounting Standards Number 45 (GAS 45). In our opinion, the actuarial assumptions are reasonable, taking in account the experience of the plan and reasonable expectations and, individually represent our best estimate of the anticipated experience under the plan.

I have no relationship with the employer or the plan that would objectively impair, or appear to impair, my ability to perform the work detailed in this report.

I certify that I am a member of the American Academy of Actuaries and meet its Qualification Standards to provide an actuarial opinion in accordance with GASB 45.



Robert W. Webb, FSA, EA, MAAA
Vice President and Actuary



Adeniyi Olaiya, ASA, MAAA
Associate Vice President and Actuary

EXECUTIVE SUMMARY DETAIL
GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST
JULY 1, 2015 RESULTS

	<u>Town</u>	<u>School</u>	<u>Total</u>
<i>I. Present value of Future benefits</i>			
A. Retirees/Disableds	\$90,350	\$50,811	\$141,161
B. Active Employees	<u>\$304,341</u>	<u>\$221,244</u>	<u>\$525,585</u>
C. Total	\$394,691	\$272,055	\$666,746
<i>II. Actuarial Accrued Liability</i>			
A. Retirees/Disableds	\$90,350	\$50,811	\$141,161
B. Active Employees	<u>\$119,121</u>	<u>\$126,473</u>	<u>\$245,594</u>
C. Total	\$209,471	\$177,284	\$386,755
<i>III. Actuarial Assets</i>	\$131,206	\$0	\$131,206
<i>IV. Unfunded Actuarial Accrued Liability (UAAL)</i>	\$78,265	\$177,284	\$255,549
<i>V. Annual Required Contribution (ARC)</i>			
A. Normal Cost	\$13,538	\$6,989	\$20,527
B. Supplemental Cost	\$6,118	\$9,081	\$15,199
C. Compound Interest to Year End	<u>\$559</u>	<u>\$442</u>	<u>\$1,001</u>
D. Annual Required Contribution	\$20,215	\$16,512	\$36,727
[A. + B. + C.]			
<i>VI. Net OPEB Obligation</i>	(\$118,471)	(\$10,138)	(\$128,609)
<i>VII. Interest on net OPEB Obligation</i>	(\$4,739)	(\$406)	(\$5,145)
<i>VIII. Adjustment to ARC</i>	\$7,328	\$627	\$7,955
<i>IX. Annual OPEB Cost (Expense)</i> [V.D. + VII. + VIII.]	\$22,804	\$16,733	\$39,537
<i>X. Expected Benefit Payments</i>			
A. Retirees/Disableds	\$8,631	\$7,454	\$16,085
B. Active Employees	<u>\$2,719</u>	<u>\$2,601</u>	<u>\$5,320</u>
C. Total	\$11,350	\$10,055	\$21,405
<i>XI. Contributions to OPEB Trust</i>	\$20,000	\$0	\$20,000

EXECUTIVE SUMMARY DETAIL
GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST
JULY 1, 2016 RESULTS

	<u>Town</u>	<u>School</u>	<u>Total</u>
<i>I. Present value of Future benefits</i>			
A. Retirees/Disableds	\$97,893	\$49,717	\$147,610
B. Active Employees	<u>\$330,826</u>	<u>\$229,458</u>	<u>\$560,284</u>
C. Total	\$428,719	\$279,175	\$707,894
<i>II. Actuarial Accrued Liability</i>			
A. Retirees/Disableds	\$97,893	\$49,717	\$147,610
B. Active Employees	<u>\$122,459</u>	<u>\$131,671</u>	<u>\$254,130</u>
C. Total	\$220,352	\$181,388	\$401,740
<i>III. Actuarial Assets</i>	\$156,454	\$0	\$156,454
<i>IV. Unfunded Actuarial Accrued Liability (UAAL)</i>	\$63,898	\$181,388	\$245,286
<i>V. Annual Required Contribution (ARC)</i>			
A. Normal Cost	\$13,876	\$7,164	\$21,040
B. Supplemental Cost	\$5,816	\$9,572	\$15,388
C. Compound Interest to Year End	<u>\$452</u>	<u>\$355</u>	<u>\$807</u>
D. Annual Required Contribution [A. + B. + C.]	\$20,144	\$17,091	\$37,235
<i>VI. Net OPEB Obligation</i>	(\$127,017)	(\$3,460)	(\$130,477)
<i>VII. Interest on net OPEB Obligation</i>	(\$5,081)	(\$138)	(\$5,219)
<i>VIII. Adjustment to ARC</i>	\$8,287	\$226	\$8,513
<i>IX. Annual OPEB Cost (Expense)</i> [V.D. + VII. + VIII.]	\$23,350	\$17,179	\$40,529
<i>X. Expected Benefit Payments</i>			
A. Retirees/Disableds	\$13,243	\$11,044	\$24,287
B. Active Employees	<u>\$3,526</u>	<u>\$4,697</u>	<u>\$8,223</u>
C. Total	\$16,769	\$15,741	\$32,510
<i>XI. Contributions to OPEB Trust</i>	\$0	\$0	\$0

Section II

Census Information

This section details statistics related to the participants in the postretirement benefit plan.

CENSUS INFORMATION

EMPLOYEE COUNTS

	<u>As of July 1, 2015</u>			<u>As of September 1, 2013</u>			
	<u>Actives</u>	<u>Retirees</u>	<u>Total</u>	<u>Actives</u>	<u>Retirees</u>	<u>Total</u>	
Male	19	4	23	Male	10	4	14
Female	39	3	42	Female	43	5	48
Total	58	7	65	Total	53	9	62

COUNTS BY AGE AND ELIGIBILITY STATUS

ACTIVE EMPLOYEES :

<u>Age</u>	<u>Currently Eligible to Retire</u>	<u>Not Currently Eligible to Retire</u>	<u>Total</u>
29 and under	0	11	11
30 - 34	0	1	1
35 - 39	0	3	3
40 - 44	0	4	4
45 - 49	1	9	10
50 - 54	0	9	9
55 - 59	1	10	11
60 - 64	4	2	6
65 and over	3	0	3
Total	9	49	58

CURRENT RETIREES:

<u>Age</u>	<u>Retirees</u>	<u>Spouse</u>	<u>Total</u>
54 and under	1	1	2
55 - 59	1	1	2
60 - 64	3	0	3
65 - 69	0	0	0
70 - 74	0	0	0
75 - 79	1	0	1
80 and over	0	0	0
Total	6	2	8

CENSUS INFORMATION (cont.)
COUNTS BY AGE AND ELIGIBILITY STATUS

AVERAGE AGE AND SERVICE

	<u>As of July 1, 2015</u>	<u>As of September 1, 2013</u>
ACTIVE EMPLOYEES:		
A. Average Age at Hire		
Males	37.3	35.2
Females	33.6	36.4
Total	34.8	36.1
B. Average Service		
Males	8.8	11.1
Females	15.0	16.2
Total	13.0	15.1
C. Average Current Age		
Males	46.1	46.3
Females	48.6	52.6
Total	47.8	51.2
CURRENT RETIREES		
D. Average Current Age		
Males	62.2	59.9
Females	61.3	62.2
Total	61.9	61.4

Section III

Financial Statement Disclosure

This section provides the required information and notes to the Financial Statements for the fiscal year ending June 30, 2016 and June 30, 2017.

FINANCIAL STATEMENT DISCLOSURE

The GASB standard on accounting for postretirement benefits other than pensions requires the following disclosures in the financial statements with regard to the retiree benefit liability:

1.) A BRIEF DESCRIPTION OF THE RETIREE MEDICAL & DENTAL INSURANCE PLAN:

- a. Plan Types:* Self insured through Blue Cross/Blue Shield Classic
- b. Eligibility:*
 - Dispatch: Any age with 20 years of service
 - Police: Hired prior to 7/1/2006: Any age with 20 years of service
 Hired on or after 7/1/2006: Age 55 with 25 years of service
 - Labor Union: 58 years of age
 - School Certified: 62 years of age with 5 years of service
 - School Non Certified: 62 years of age with 5 years of service
- c. Benefit/Cost Sharing:*
 - Police: The Town pays 40% toward individual or family medical until the retiree becomes Medicare eligible.
 - Dispatch: The Town pays 40% toward individual or family medical premium for 5 years after retirement if date of retirement was prior to 7/1/2007 and for 7 years after retirement if date of retirement was after 7/1/2007.
 - Labor Union: The Town pays 40% of the individual medical premium until retiree is eligible for Medicare.
 - School Non Certified: The Town pays 100% of the individual medical and dental premiums until retiree is Medicare eligible.
 - School Certified:
 - Date of Retirement prior to 7/1/2007: Town pays 100% of individual medical and dental premiums until retiree is Medicare eligible.
 - Date of Retirement post 7/1/2007 but prior to 7/1/2012: Town pays 90% of individual medical and dental premiums until retiree is Medicare eligible.
 - Date of Retirement post 7/1/2012: Town pays 80% of individual medical and dental premiums until retiree is Medicare eligible.
 - Special Cases: The Town pays 75% of the Police Officer William Chapman's surviving spouse's medical premiums.
- d. Spouse Benefit:*
 - Police and Dispatch: Medical coverage is the same as retiree coverage.
 - Labor Union & School: Spouse must pay 100% of their premiums.
- e. Surviving Spouse Benefit:* No.
- f. Annual Premiums:*

	<i>7/1/2015 – 6/30/2016</i>	
	<i>Single</i>	<i>Family</i>
<i>Pre-65</i>	\$6,322.92	\$17,123.04
<i>Post-65</i>	\$2,031.72	
 <i>Dental</i>	 \$ 409.20	 \$ 1,114.68

FINANCIAL STATEMENT DISCLOSURE (cont.)

2.) GASB 45 DISCLOSURE REQUIREMENTS – ESTIMATED TOTAL

A. Annual OPEB Cost and Net OPEB Obligation	<u>7/1/2015 -</u> <u>6/30/2016</u>	<u>7/1/2016 -</u> <u>6/30/2017</u>
1. Annual Required Contribution (ARC)	\$36,727	\$37,235
2. Interest on net OPEB Obligation	(\$5,145)	(\$5,219)
3. Adjustment to ARC	<u>\$7,955</u>	<u>\$8,513</u>
4. Annual OPEB Cost (Expense)	\$39,537	\$40,529
5. Contribution made (assumed middle of year) *	<u>(\$41,405)</u>	<u>(\$32,510)</u>
6. Increase in net OPEB Obligation	(\$1,868)	\$8,019
7. Net OPEB Obligation - beginning of year	<u>(\$128,609)</u>	<u>(\$130,477)</u>
8. Net OPEB Obligation - end of year	(\$130,477)	(\$122,458)

* Contribution made was assumed to equal to Expected Benefit Payments plus contribution to the OPEB Trust

The annual OPEB Cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal years ending 2016 / 2017 are as follows:

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Annual</u> <u>OPEB Cost</u>	<u>Percentage of</u> <u>Annual OPEB</u> <u>Cost Contributed</u>	<u>Net</u> <u>OPEB</u> <u>Obligation</u>	<u>Covered</u> <u>Payroll</u>	<u>OPEB Cost</u> <u>% of Pay</u>
6/30/2016	\$39,537	104.7%	(\$130,477)	N/A	N/A
6/30/2017	\$40,529	80.2%	(\$122,458)	N/A	N/A

B. Funded Status and Funding Progress

<u>Actuarial</u> <u>Valuation</u> <u>Date</u>	<u>Actuarial</u> <u>Value of</u> <u>Assets</u> <u>(a)</u>	<u>Actuarial</u> <u>Accrued</u> <u>Liability</u> <u>(AAL)</u> <u>(b)</u>	<u>Unfunded</u> <u>AAL</u> <u>(UAAL)</u> <u>(b - a)</u>	<u>Funded</u> <u>Ratio</u> <u>(a/b)</u>	<u>Covered</u> <u>Payroll</u> <u>(c)</u>	<u>UAAL as a</u> <u>Percentage of</u> <u>Covered</u> <u>Payroll</u> <u>(AAL)</u> <u>((b - a) / c)</u>
7/1/2009	\$ -	\$780,502	\$780,502	0.0%	N/A	N/A
7/1/2012	\$ -	\$408,554	\$408,554	0.0%	N/A	N/A
7/1/2015	\$131,206	\$386,755	\$255,549	33.9%	N/A	N/A

C. Methods and Assumptions

- Interest Rate	4.00%
- 2015 Medical Trend Rates	9.00%
- Ultimate Medical Trend Rate	5.00%
- Year Ultimate Trend Rates Reached	2019
- Actuarial Cost Method	Entry Age Normal
- The remaining amortization period at 06/30/2016	19.12
- Annual Payroll Increase	2.50%

FINANCIAL STATEMENT DISCLOSURE (cont.)

3.) GASB 45 DISCLOSURE REQUIREMENTS – ESTIMATED TOWN

A. Annual OPEB Cost and Net OPEB Obligation	<u>7/1/2015 - 6/30/2016</u>	<u>7/1/2016 6/30/2017</u>
1. Annual Required Contribution (ARC)	\$20,215	\$20,144
2. Interest on net OPEB Obligation	(\$4,739)	(\$5,081)
3. Adjustment to ARC	<u>\$7,328</u>	<u>\$8,287</u>
4. Annual OPEB Cost (Expense)	\$22,804	\$23,350
5. Contribution made (assumed middle of year) *	<u>(\$31,350)</u>	<u>(\$16,769)</u>
6. Increase in net OPEB Obligation	(\$8,546)	\$6,581
7. Net OPEB Obligation - beginning of year	<u>(\$118,471)</u>	<u>(\$127,017)</u>
8. Net OPEB Obligation - end of year	(\$127,017)	(\$120,436)

* Contribution made was assumed to equal to Expected Benefit Payments plus contribution to the OPEB Trust

The annual OPEB Cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal years ending 2016 / 2017 are as follows:

<u>Fiscal Year Ending</u>	<u>Annual OPEB Cost</u>	<u>Percentage of Annual OPEB Cost Contributed</u>	<u>Net OPEB Obligation</u>	<u>Covered Payroll</u>	<u>OPEB Cost % of Pay</u>
6/30/2016	\$22,804	137.5%	(\$127,017)	N/A	N/A
6/30/2017	\$23,350	71.8%	(\$120,436)	N/A	N/A

B. Funded Status and Funding Progress

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets (a)</u>	<u>Actuarial Accrued Liability (AAL) (b)</u>	<u>Unfunded AAL (UAAL) (b - a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll (AAL) ((b - a) / c)</u>
7/1/2009	\$ -	\$231,895	\$231,895	0.0%	N/A	N/A
7/1/2012	\$ -	\$246,184	\$246,184	0.0%	N/A	N/A
7/1/2015	\$131,206	\$209,471	\$78,265	62.6%	N/A	N/A

C. Methods and Assumptions

- Interest Rate 4.00%
- 2015 Medical Trend Rates 9.00%
- Ultimate Medical Trend Rate 5.00%
- Year Ultimate Trend Rates Reached 2019
- Actuarial Cost Method Entry Age Normal
- The remaining amortization period at 06/30/2016 19.12
- Annual Payroll Increase 2.50%

FINANCIAL STATEMENT DISCLOSURE (cont.)

4.) GASB 45 DISCLOSURE REQUIREMENTS – ESTIMATED SCHOOL

A. Annual OPEB Cost and Net OPEB Obligation	<u>7/1/2015 - 6/30/2016</u>	<u>7/1/2016 - 6/30/2017</u>
1. Annual Required Contribution (ARC)	\$16,512	\$17,091
2. Interest on net OPEB Obligation	(\$406)	(\$138)
3. Adjustment to ARC	<u>\$627</u>	<u>\$226</u>
4. Annual OPEB Cost (Expense)	\$16,733	\$17,179
5. Contribution made (assumed middle of year) *	<u>(\$10,055)</u>	<u>(\$15,741)</u>
6. Increase in net OPEB Obligation	\$6,678	\$1,438
7. Net OPEB Obligation - beginning of year	<u>(\$10,138)</u>	<u>(\$3,460)</u>
8. Net OPEB Obligation - end of year	(\$3,460)	(\$2,022)

* Contribution made was assumed to equal to Expected Benefit Payments

The annual OPEB Cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal years ending 2016 / 2017 are as follows:

<u>Fiscal Year Ending</u>	<u>Annual OPEB Cost</u>	<u>Percentage of Annual OPEB Cost Contributed</u>	<u>Net OPEB Obligation</u>	<u>Covered Payroll</u>	<u>OPEB Cost % of Pay</u>
6/30/2016	\$16,733	60.1%	(\$3,460)	N/A	N/A
6/30/2017	\$17,179	91.6%	(\$2,022)	N/A	N/A

B. Funded Status and Funding Progress

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets (a)</u>	<u>Actuarial Accrued Liability (AAL) (b)</u>	<u>Unfunded AAL (UAAL) (b - a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll (AAL) ((b - a) / c)</u>
7/1/2009	\$ -	\$548,606	\$548,606	0.0%	N/A	N/A
7/1/2012	\$ -	\$162,370	\$162,370	0.0%	N/A	N/A
7/1/2015	\$ -	\$177,284	\$177,284	0.0%	N/A	N/A

C. Methods and Assumptions

- Interest Rate	4.00%
- 2015 Medical Trend Rates	9.00%
- Ultimate Medical Trend Rate	5.00%
- Year Ultimate Trend Rates Reached	2019
- Actuarial Cost Method	Entry Age Normal
- The remaining amortization period at 06/30/2016	19.12
- Annual Payroll Increase	2.50%

Section IV

Actuarial Assumptions And Methodology

The following pages detail the assumptions used in the calculations.

ACTUARIAL ASSUMPTIONS AND METHODOLOGY

1. **Funding Interest Rate:** An interest rate of 4.00% was used.
2. **Health Care Trend Rates:** It was assumed that health care costs would increase in accordance with the trend rates in the following table:

	<i>Medical</i>	<i>Dental</i>
<u>Year</u>	<u>Rates</u>	<u>Rates</u>
2015	9.0%	5.0%
2016	8.0%	5.0%
2017	7.0%	5.0%
2018	6.0%	5.0%
2019+	5.0%	5.0%

For the following demographic (mortality, retirement, disability, and other termination of employment) assumptions we utilized rates used in the actuarial valuation of the Employees' Retirement System of Rhode Island.

3. **Mortality:** RP-2000 Fully Generational Combined Male and Female table with projection scale AA.
 Disabled males – 60% of the PBGC Table Va for disabled males eligible for Social Security disability benefits.
 Disabled females – 60% of the PBGC Table VIa for disabled females eligible for Social Security disability benefits.
4. **Retirement Rates:** **City employees:** Separate male and female rates. Sample rates are shown below:

30 or more years of service prior to age 58:

<u>Service</u>	<u>Male</u>	<u>Female</u>
30	30.0%	30.0%
31	30.0%	25.0%
32-34	25.0%	10.0%
35	25.0%	15.0%
36	25.0%	20.0%
37	25.0%	25.0%
38	35.0%	25.0%
39	50.0%	25.0%
40+	100.0%	100.0%

ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)

4. **Retirement Rates (cont):** Age 58 and older

<u>Age</u>	<u>Male</u>	<u>Female</u>
58	12.0%	12.0%
59-61	10.0%	10.0%
62	30.0%	20.0%
63-64	20.0%	15.0%
65	20.0%	20.0%
66-68	25.0%	25.0%
69	30.0%	25.0%
70-74	30.0%	20.0%
75	100.0%	100.0%

Police and Firefighters: Unisex rates based on service are used. Sample rates are shown below:

<u>Service</u>	<u>Rate</u>
20	12.0%
21	10.0%
22-23	10.0%
24	12.0%
25	14.0%
26	16.0%
27	18.0%
28	20.0%
29	20.0%
30+	35.0%

5. **Disability Rates:** None assumed

6. **Termination Rates:** Base on service:

<u>Service</u>	<u>Non Police</u>		<u>Police/Fire</u>
	<u>Male</u>	<u>Female</u>	<u>Rate</u>
0	17.50%	18.00%	10.00%
1	10.87%	11.43%	5.28%
5	5.52%	5.84%	3.54%
10	2.60%	2.55%	1.91%
15	2.01%	1.59%	0.90%
20	1.75%	1.12%	0.00%
24	0.44%	0.00%	0.00%

7. **Participation Rate:** It was assumed that 100% of the current active employees covered under the active plan on the day before retirement would enroll in the retiree medical plan upon retirement.

ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)

8. **Percent Married:** It was assumed that 75% of the male and 75% of the female police and dispatch employees who elect retiree health care coverage for themselves would also elect coverage for their spouse upon retirement. It was assumed that male spouses are three years older than their wives and female spouses are three years younger than the retiree. For current retirees, actual census information was used.

9. **Actuarial Value of Assets:** N/A

10. **Per Capita Claims Cost:** Premiums were age-graded on the current participants in the Medical plan. See below for further details of the annual per capita claims cost.

<u>Age</u>	<u>Male</u>	<u>Female</u>
40	3,720	5,208
45	4,414	5,542
50	5,300	6,113
55	6,435	6,677
60	7,761	7,439

11. **Administrative expenses:** Included in premiums used.

12. **Participant Salary Increases:** 3.50% annually

13. **Payroll Growth Rate:** 2.50% annually

14. **High Cost Plan Excise Tax:** Effective in 2018. The law apply a 40% tax to the cost of plan benefits in excess of statutory thresholds, which are \$10,200 for single coverage and \$27,500 for family coverage for Medicare eligible retirees, and \$11,850 for single coverage and \$30,950 for family coverage for retirees who are between ages 55 and 65. We assume the thresholds will start to increase in 2018 at the rate of 3.4%. The plan costs for pre 65 and post 65 benefits are based on the plans' premium costs adjusted for aging and trended at the health care trend rates shown above.

ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)

ACTUARIAL COST METHOD

An Actuarial Cost Method develops an orderly allocation of the actuarial present value of benefits payments over the working lifetime of the participants in the plan. The actuarial present value of benefits allocated to a particular fiscal year is called the Normal Cost. The actuarial present value of benefits allocated to all periods prior to a valuation date is called the Actuarial Accrued Liability. The Unfunded Actuarial Accrued Liability is amortized over future years in accordance with the employer's established accounting policy.

The Entry Age Actuarial Cost Method is used in this valuation. Under this method, the Actuarial Present Value of Projected Benefits of each individual included in the Actuarial Valuation is allocated on a level basis over future earnings of the individual between entry age and assumed exit age(s). 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 Accrued Liability.

The amortization of the unfunded actuarial accrued liability may be determined in level dollar amounts or as a level percentage of projected payroll of active plan members. The total unfunded actuarial accrued liability may be amortized as one amount, or components of the total may be separately amortized. The equivalent single amortization period for all components combined may not exceed the maximum acceptable period of 30 years. The results in Sections I and III are based on a 30 year amortization of the unfunded actuarial accrued liability as a level percentage of payroll. The development of the Annual Required Contribution under alternative amortization methods is provided in Appendix II.

ADDITIONAL COMMENTS

The values in this GASB 45 valuation represent a closed group and do not reflect new entrants after the census collection date.

Section V
Appendices

APPENDIX - I.

ACTIVE EMPLOYEE BY AGE AND SERVICE

AS OF JULY 1, 2015

<u>Age</u>	<u>Service</u>									<u>Total</u>
	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 - 34</u>	<u>35 - 39</u>	<u>40+</u>	
0 - 19	0	0	0	0	0	0	0	0	0	0
20 - 24	3	0	0	0	0	0	0	0	0	3
25 - 29	8	0	0	0	0	0	0	0	0	8
30 - 34	1	0	0	0	0	0	0	0	0	1
35 - 39	2	0	1	0	0	0	0	0	0	3
40 - 44	1	0	0	1	1	0	0	0	0	3
45 - 49	3	2	1	0	1	1	0	0	0	8
50 - 54	3	1	1	1	3	3	0	0	0	12
55 - 59	1	0	2	2	1	3	1	0	0	10
60 - 64	0	1	1	3	0	2	0	0	0	7
65 - 69	0	0	0	2	0	1	0	0	0	3
70 - 74	0	0	0	0	0	0	0	0	0	0
75 - 79	0	0	0	0	0	0	0	0	0	0
80 - 84	0	0	0	0	0	0	0	0	0	0
85 and Over	0	0	0	0	0	0	0	0	0	0
<u>Total</u>	<u>22</u>	<u>4</u>	<u>6</u>	<u>9</u>	<u>6</u>	<u>10</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>58</u>

APPENDIX – II

RECONCILIATION OF ACTUARIAL ACCRUED LIABILITY

a. 7/1/2012 Actuarial Accrued Liability	\$408,554
b. 2012 Normal Cost	\$10,303
c. Interest Rate	4.00%
d. Interest on (a. + b.)	\$16,755
e. 2012 Expected Benefit Payments	(\$41,958)
f. Interest on e.	<u>(\$839)</u>
g. 7/1/2013 Expected Actuarial Accrued Liability (a. + b. + d. + e. + f.)	\$392,815
h. 2013 Normal Cost	\$10,560
i. Interest Rate	4.00%
j. Interest on (g. + h.)	\$16,135
k. 2013 Expected Benefit Payments	(\$29,385)
l. Interest on k.	<u>(\$588)</u>
m. 7/1/2014 Expected Actuarial Accrued Liability (g. + h. + j. + k. + l.)	\$389,537
n. 2014 Normal Cost	\$10,824
o. Interest Rate	4.00%
p. Interest on (m. + n.)	\$16,015
q. 2014 Expected Benefit Payments	(\$34,003)
r. Interest on q.	<u>(\$680)</u>
s. 7/1/2015 Expected Actuarial Accrued Liability (m. + n. + p. + q. + r.)	\$381,693
t. Change in Actuarial Accrued Liability due to	
i. Demographic and plan cost changes	(\$58,546)
ii. Change in Actuarial Assumptions	\$25,308
iii. Plan Change	<u>\$38,300</u>
iv. Total	\$5,062
u. 7/1/2015 Actuarial Accrued Liability (s. + t.iv.)	\$386,755

APPENDIX – III

DEVELOPMENT OF NORMAL COST AND AMORTIZATION AMOUNT

A. Prior Bases

1. Amortization Base Balance as of 7/1/2012	\$408,554
2. 2012 Amortization Payment	(\$19,330)
3. Interest	4.00%
4. Interest on (1) + (2)	<u>\$15,569</u>
5. Amortization Base Balance as of 7/1/2013 (1) + (2) + (4)	\$404,793
6. 2013 Amortization Payment	(\$17,167)
7. Interest	4.00%
8. Interest on (5) + (6)	<u>\$15,505</u>
9. Amortization Base Balance as of 7/1/2014 (5) + (6) + (8)	\$403,131
10. 2014 Amortization Payment	(\$15,962)
11. Interest	4.00%
12. Interest on (9) + (10)	<u>\$15,487</u>
13. Amortization Base Balance as of 7/1/2015 (9) + (10) + (12)	\$402,656
14. Remaining Amortization Period	22.03
15. Valuation Interest rate	4.00%
16. Assumed payroll growth	2.50%
17. 2015 Adjusted Amortization Amount	\$21,205

B. New Amortization Base

1. Experience (Gain)/Loss	(\$58,546)
2. Assumption Changes	\$25,308
3. Plan Change	\$38,300
4. Investment (Gain)/Loss	\$5,757
5. Funded Policy	<u>(\$157,926)</u>
6. Total (1) + (2) + (3) + (4) + (5)	(\$147,107)
7. Remaining Amortization Period	30
8. Valuation Interest rate	4.00%
9. Assumed payroll growth	2.50%
10. Amortization Amount	(\$6,006)

C. Combined Bases

1. Amortization Base Balance as of 7/1/2015 (A.13. + B.6.)	\$255,549
2. 2015 Preliminary Total Amortization Amount (A.17. + B.10.)	\$15,199
3. 2015 Minimum Total Amortization Amount (30 year)	\$10,433
4. 2015 Total Amortization Amount (greater of 2. and 3.)	\$15,199

APPENDIX – IV

RECONCILIATION OF ACTUARIAL ASSETS

a. 7/1/2012 Actuarial Assets	\$0
b. 2012 Contributions	\$94,821
c. Plan Member Contributions	\$23,336
d. Expected Investment Return	\$0
e. Expected Benefit Payments	(\$65,295)
f. Expenses	<u>\$0</u>
g. 7/1/2013 Actuarial Assets	\$52,862
(a. + b. + c. + d. + e. + f.)	
h. 2013 Contributions	\$75,155
i. Plan Member Contributions	\$18,902
j. Expected Investment Return	\$2,114
k. Expected Benefit Payments	(\$55,172)
l. Expenses	<u>\$0</u>
m. 7/1/2014 Actuarial Assets	\$93,861
(g. + h. + i. + j. +k. + l.)	
n. 2014 Contributions	\$84,957
o. Plan Member Contributions	\$17,350
p. Expected Investment Return	\$3,754
q. Expected Benefit Payments	(\$62,959)
r. Expenses	<u>\$0</u>
s. 7/1/2015 Actuarial Assets	\$136,963
(m. + n. + o. + p. + q. + r.)	
t. 7/1/2015 Actual Assets	\$131,206
u. Asset Gain/(Loss) (q. - p.)	(\$5,757)

APPENDIX – V

PROJECTED BENEFIT PAYMENTS

<u>Year</u>	<u>Amount</u>	<u>Accumulated</u>	<u>Year</u>	<u>Amount</u>	<u>Accumulated</u>
2015	\$ 21,405	\$ 21,405	2039	\$ 8,006	\$ 689,495
2016	\$ 32,510	\$ 53,915	2040	\$ 31,702	\$ 721,197
2017	\$ 37,908	\$ 91,823	2041	\$ 36,441	\$ 757,638
2018	\$ 35,149	\$ 126,972	2042	\$ 9,455	\$ 767,093
2019	\$ 30,238	\$ 157,210	2043	\$ 9,511	\$ 776,604
2020	\$ 37,563	\$ 194,773	2044	\$ 13,946	\$ 790,550
2021	\$ 41,396	\$ 236,169	2045	\$ 19,448	\$ 809,998
2022	\$ 21,531	\$ 257,700	2046	\$ 27,641	\$ 837,639
2023	\$ 22,298	\$ 279,998	2047	\$ 36,046	\$ 873,685
2024	\$ 33,195	\$ 313,193	2048	\$ 40,209	\$ 913,894
2025	\$ 42,309	\$ 355,502	2049	\$ 52,944	\$ 966,838
2026	\$ 35,364	\$ 390,866	2050	\$ 73,795	\$ 1,040,633
2027	\$ 37,208	\$ 428,074	2051	\$ 81,438	\$ 1,122,071
2028	\$ 42,320	\$ 470,394	2052	\$ 77,204	\$ 1,199,275
2029	\$ 37,500	\$ 507,894	2053	\$ 110,298	\$ 1,309,573
2030	\$ 9,819	\$ 517,713	2054	\$ 101,801	\$ 1,411,374
2031	\$ 7,450	\$ 525,163	2055	\$ 58,846	\$ 1,470,220
2032	\$ 25,171	\$ 550,334	2056	\$ 41,910	\$ 1,512,130
2033	\$ 20,090	\$ 570,424	2057	\$ -	\$ 1,512,130
2034	\$ 25,500	\$ 595,924	2058	\$ -	\$ 1,512,130
2035	\$ 26,037	\$ 621,961	2059	\$ -	\$ 1,512,130
2036	\$ 5,324	\$ 627,285	2060	\$ -	\$ 1,512,130
2037	\$ 25,855	\$ 653,140	2061	\$ -	\$ 1,512,130
2038	\$ 28,349	\$ 681,489	2062	\$ -	\$ 1,512,130

APPENDIX – VI

GLOSSARY

Actuarial Accrued Liability. The portion, as determined by a particular Actuarial Cost Method, of the present value of benefits which is not provided for by future Normal Costs.

Actuarial Cost Method. A procedure for determining the Actuarial Present Value of Total Projected Benefits and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

Actuarially Equivalent. Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Actuarial Present Value of Total Projected Benefits. The present value, as of the valuation date, of the cost of future benefits to be paid to employees, retirees, and covered dependents, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. It is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.

Annual OPEB Cost. The accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB Plan.

Annual Required Contributions of the Employer (ARC). The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters defined in GAS 45.

Investment Return Assumption (Discount Rate). The rate used to adjust a series of future benefit payments to reflect the time value of money.

Healthcare Cost Trend Rate. The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services and technological developments.

Net OPEB Obligation. The cumulative difference since the effective date of GAS 45 between the annual OPEB cost and the employer's contributions to the plan.

Normal Cost. The portion of the Actuarial Present Value of plan benefits which is allocated to a valuation year by the Actuarial Cost Method.

OPEB. Postemployment benefits other than pension benefits.

Pay-As-You-Go. The amount of the benefits paid out to plan participants during the year.

Per Capita Claims Cost. The current average annual cost of providing postretirement health care benefits per individual.

Supplemental Cost. The amount of the Annual Required Contribution attributable to the amortization of the unfunded Actuarial Accrued Liability.