## June 30, 2011 ACTUARIAL VALUATION OF THE POST RETIREMENT BENEFITS PLAN OF THE TOWN OF FOXBOROUGH

April 2012

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## **SECTION I - OVERVIEW**

The Town of Foxborough has engaged Buck Consultants, LLC (Buck) to prepare this revision to the actuarial valuation of their post-retirement benefits program as of June 30, 2011. This valuation was performed using employee census data, enrollment data, claims, premiums, participant contributions, and plan provision information provided by personnel of the Town of Foxborough. Buck did not audit these data, although they were reviewed for reasonability. The results of the valuation are dependent on the accuracy of the data.

The purpose of the valuation is to provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties. This valuation report contains information required by the Governmental Accounting Standards Board's Statement No. 45 entitled "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions" for the fiscal years ending June 30, 2011 and June 30, 2012.

The Town began prefunding the plan at the end of Fiscal Year 2010 and is thereby required to produce financial statements including information required by the Governmental Accounting Standards Board's Statement No. 43, entitled "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans".

According to GASB principles, if the benefits are not prefunded (i.e. Pay-as-You-Go funding approach), the rate earned by the General Asset Account must be used to select the discount rate used to measure the plan. To measure on that basis we have used a discount rate of 3.5%.

To measure on a fully funded basis we have used an 8.0% discount rate, which implicitly assumes a relatively high proportion of equity investments. The calculations in this scenario are used to determine the level of contributions necessary to assure sound funding.

The Town began prefunding on a partially funded basis and intends to increase its contributions over time to reach a fully funded basis. As such, the investments expected to be used to finance the payment of benefits are a combination of plan and employer assets. The following guidance was published by GASB:

Paragraph 123 of Statement 45 discusses potential reasonable methods of developing a blended discount rate when a plan is being partially funded. These include 1) an approach that would base the proportionate amounts of plan and employer assets used in the calculation on the extent to which a plan is funded (the funded ratio) and 2) an approach that would base the proportionate amounts used on the percentage of the ARC actually being contributed to the plan. No single approach may fit all situations.

For example, if an employer has an established funding policy that has been consistently applied (and is expected to be in the future), it might be appropriate to base the discount rate assumption on the percentage of the ARC contributed to the plan. However, an approach based on the ARC generally would not be appropriate if the employer does not have a consistent policy for advance-funding OPEB benefits. For example, if the plan generally is funded on a pay-as-you-go basis with additional contributions made in periods in which excess resources are available. Therefore, the Statement does not specify a particular approach for determining a blended rate for partially funded plans but requires (in paragraph 25d(5)(c)) that an employer disclose the approach used.<sup>1</sup>

Since the Town has indicated a commitment to fund, but in amounts that may vary each year, we have developed a discount rate based on an accumulation, since the fund was established, of the actual amounts of funding compared to an accumulation of ARC amounts. Only amounts in excess of that required to fund current benefits were reflected. For the Fiscal Year End 2011 valuation, a 5.75% discount rate was developed based on a blend of the discount rates on an unfunded and fully funded basis. This methodology will produce potentially different discount rates at each valuation. We have also provided certain results on an unfunded basis (3.5%) and a fully funded basis (8.0%) for information purposes.

The demographic assumptions are based on Experience Study analyses published by the Massachusetts Public Employee Retirement Administration Commission. The assumptions were supplemented by assumptions related to healthcare costs.

Due to recent updates within Actuarial Standards of Practice No. 35 (ASOP 35) of the Actuarial Standards Board (ASB), we have revised the mortality assumptions used in the valuation. The tables used reflect an assumption about mortality improvement after

<sup>&</sup>lt;sup>1</sup> Question and Answer Number 81, in the *Guide to Implementation of GASB Statements 43 and 45 on Other Postemployment Benefits*, published June 2005.

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the valuation date. Our mortality assumptions are the RP-2000 Mortality Tables for

males and females with a generational projection using Scale AA for both pre-

retirement and post-retirement mortality. Additionally, due to national healthcare reform

legislation, we included the estimated impact of the Excise Tax on high cost health

plans (aka, the "Cadillac tax").

Given the economic and demographic assumptions selected, the costs and actuarial

exhibits presented in this report have been prepared in accordance with the

requirements of GASB 45. While the actuary believes that the assumptions are

reasonable for financial reporting purposes, it should be understood that there is a

range of assumptions that could be deemed reasonable that would yield different

results. Moreover, while the actuary considers the assumption set to be reasonable

based on prior plan experience, it should be understood that future plan experience

may differ considerably from what has been assumed.

Our valuation was prepared in accordance with generally accepted actuarial principles

and practices, and, to the best of our knowledge, fairly reflects the values of the

benefits under the Plan as of June 30, 2011. The valuation was prepared under my

supervision. I am an Associate of the Society of Actuaries and a Member of the

American Academy of Actuaries and have met the Qualifications Standard of the

American Academy of Actuaries to render the actuarial opinions contained herein.

Thank you for this opportunity to be of service. I am available to answer questions

about this report.

Respectfully Submitted,

**BUCK CONSULTANTS, LLC** 

Frank Space 1.

Frank Svara Jr. ASA, MAAA

April 16, 2012

Date

Director and Consulting Actuary, Health & Productivity

## SECTION II - DEVELOPMENT OF ANNUAL REQUIRED CONTRIBUTION (ARC)

		Fi	ull Prefunding 8.00%	Pa	ıy-as-You-Go 3.50%	F	Partial Funding 5.75%
a)	Actuarial valuation date	Ju	une 30, 2011	Jι	une 30, 2011	J	une 30, 2011
b)	Actuarial Value of Assets	\$	1,904,024	\$	1,904,024	\$	1,904,024
c)	Actuarial Accrued Liability Active participants Retired participants Total AAL	\$ - \$	22,288,495 15,161,131 37,449,626	\$  \$	61,610,423 23,777,721 85,388,144	\$	35,560,878 18,666,382 54,227,260
d)	Unfunded Actuarial Liability "UAL" [ c - b ]	\$	35,545,602	\$	83,484,120	\$	52,323,236
e)	Funded ratio [b/c]		5.1%		2.2%		3.5%
f)	Annual covered payroll	\$	30,785,506	\$	30,785,506	\$	30,785,506
g)	UAL as percentage of covered payroll [ d / f ]		115.5%		271.2%		170.0%
h)	Normal Cost (with interest) for fiscal year 2011	\$	1,351,990	\$	4,636,689	\$	2,394,473
i)	Amortization of UAL for fiscal year 2011*		N/A		N/A	\$	2,171,641
j)	Annual Required Contribution "ARC" for fiscal year 2011 [ h + i ]		N/A		N/A	\$	4,566,114
k)	Expected benefit payments for fiscal year 2011		N/A		N/A	\$	1,280,373
l)	Increase in annual cost to fund the Plan [ j - k ]		N/A		N/A	\$	3,285,741
m)	Increase in Net OPEB Obligation (NOO)		N/A		N/A	\$	2,733,533
n)	Normal Cost (with interest) for fiscal year 2012	\$	1,419,590	\$	4,868,523	\$	2,514,197
0)	Amortization of UAL for fiscal year 2012*	\$	2,098,076	** \$	2,683,471	\$	2,324,959
p)	Annual Required Contribution "ARC" for fiscal year 2012 [ n + o ]	\$	3,517,666	\$	7,551,994	\$	4,839,156
q)	Expected benefit payments for fiscal year 2012	\$	1,460,664	\$	1,460,664	\$	1,460,664
q)	Increase in annual cost to fund the Plan [ p - q ]	\$	2,057,002	\$	6,091,330	\$	3,378,492

<sup>\* 30-</sup>year open amortization, increasing 4.00% per year

<sup>\*\* 30-</sup>year closed amortization starting FY 2012, increasing 4.00% per year

## **SECTION III - MEDICAL PREMIUMS**

Health benefits are available to employees and retirees through a number of plans through the Massachusetts Interlocal Insurance Association ("MIIA") Health Benefits Trust. The following fully-insured premium rates are based on the Town's population and experience, and are assumed to include any associated administrative fees and stop-loss insurance premiums. These rates, effective as of September 1, 2011, are gross and do not reflect required contributions.

Blue Care Elect PPO (individual)	\$782.10
Blue Care Elect PPO (family)	\$2,022.20
HMO Blue New England (individual)	\$659.43
HMO Blue New England (family)	\$1,705.00
Blue Choice POS (individual)	\$774.83
Blue Choice POS (family)	\$1,827.10
Medex 3 (per individual)	\$599.19

Retirees contribute 50% of the stated premiums. Previously, some individuals were only contributing 30% of the cost for pre-Medicare coverage. For those contributing only 30% (those under the HMO or POS options), the contribution percentage was increased to 40% during FY2012, and 50% during FY2013.

Furthermore, the Town has been awarded a 0% increase in the above stated premiums for its FY2013. At the Town's direction, we have reflected this increase in the results presented in this report.

# SECTION IV - MEMBERSHIP DATA AND BREAKDOWN OF RESULTS

Census data effective July 1, 2011

Number of Employees		Town			School		Wat	Water / Sewer *	*		Total	
	Count -	Ave	Average le Service	Count	Aver	Average le Service	Count -	Average Age Sei	Service	Count -	Average Age Sel	Service
Actives Group 1 Non-Teacher	29	51.1	10.6	174	50.9	10.0	13	53.2	15.3	254	1,7	10.4
Group 1 Teacher Chapter 114	•	ΝA	N/A	160	40.4	5.2	'	N/A	N/A	160	40.4	5.2
Group 1 Teacher Non-114	ı	Υ/N	Ν	106	51.1	16.7	1	N/A	A/N	106	51.1	16.7
Group 4	61	44.8	13.5	1	N/A	N/A	r	N/A	N/A	61	44.8	13.5
Total	128	48.1	11.9	440	47.1	9.9	13	53.2	15.3	581	47.5	10.5
Medical												
Retirees												
Non-Medicare Under 65	<u>4</u>	59.4		26	62.2		1	1		9	61.2	
Non-Medicare Over 65	2	76.9		14	75.2		~	69.9		17	75.1	
Medicare Under 65	<b>~</b>	61.8		1	1		1	1		_	61.8	
Medicare Over 65	33	73.5		111	75.2		က	77.3		147	74.8	
Total	20	69.4		151	72.9		4	75.5		205	72.1	
Spouses												
Non-Medicare Under 65	7	58.9		<del>/</del>	61.9		1	N/A		22	60.4	
Non-Medicare Over 65	1	Y.		ß	71.6		_	67.1		ဖ	70.8	
Medicare Under 65	ı	₹ Z		1	¥≱		•	X X		ι	X X	
Medicare Over 65	10	69.3		43	73.8		2	79.5		22	73.2	
Total	21	63.9		59	71.4		က	75.4		83	69.61	
Life Insurance	99	68.9		153	73.5		S	74.2		217	72.3	
Total Medical Count	199			650			20			869		
Life Count	187			593			4			798		

Split not provided on census; results presented assumes 80% Water and 20% Sewer

# SECTION IV - MEMBERSHIP DATA AND BREAKDOWN OF RESULTS

	Town	School	Water	Sewer	Total
FY 2011 Annual Required Contribution @ 5.75%	@ 5.75%				
Normal Cost (with interest) Amortization of UAL (with interest) Total	570,677 554,229 1,124,906	1,787,543 1,554,343 3,341,886	29,003 50,455 79,458	7,250 12,614 19,864	2,394,473 2,171,641 4,566,114
Expected Pay-as-you-go Costs	279,982	965,172	28,175	7,044	1,280,373
Difference	844,924	2,376,714	51,283	12,820	3,285,741
Actuarial Accrued Liability as of June 30, 2011 @ 5.75%	30, 2011 @ 5.7	%2%			
Active Retirees and Beneficiaries Total	9,308,816 4,538,332 13,847,148	25,191,712 13,644,791 38,836,503	848,280 386,607 1,234,887	212,070 96,652 308,722	35,560,878 18,666,382 54,227,260
Assets	486,200	1,363,625	43,359	10,840	1,904,024
Unfunded Actuarial Accrued Liability	13,360,948	37,472,878	1,191,528	297,882	52,323,236
FY 2012 Annual Required Contribution @ 5.75%	@ 5.75%				
Normal Cost (with interest) Amortization of UAL (with interest) Total	599,211 593,688 1,192,899	1,876,920 1,665,090 3,542,010	30,453 52,945 83,398	7,613 13,236 20,849	2,514,197 2,324,959 4,839,156
Expected Pay-as-you-go Costs	319,407	1,101,079	32,142	8,036	1,460,664
Difference	873,492	2,440,931	51,256	12,813	3,378,492

## SECTION V - REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF FUNDING PROGRESS

## (a) (b) (b) - (a) (a) / (b) [(b)-(a)] / (c) Actuarial UAL as Actuarial Actuarial Unfunded Percentage Accrued Valuation Value of Liability AAL Funded Covered of Covered Date <u>Assets</u> (AAL) (UAL) <u>Ratio</u> Payroll <u>Payroll</u> June 30, 2009 62,192,355 0.00% 29,236,861 0 62,192,355 212.7%

52,323,236

3.51%

30,785,506

170.0%

54,227,260

June 30, 2011 1,904,024

## **SECTION VI - NET OPEB OBLIGATION**

GASB Statement No. 45 requires the development of Annual OPEB Cost and Net OPEB Obligation (NOO). This development is shown in the following table.

## Development of OPEB Cost and Net OPEB Obligation (NOO)

Year Ending June 30	Annual Required Contribution	Interest on NOO	ARC Adjustment	Annual OPEB Cost (1) + (2) - (3)	Contribution	Change in NOO (4) - (5)	NOO Balance
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
2009 2010 2011 2012	5,095,788 5,372,887 * 4,566,114 4,839,156	0 140,343 * 394,639 551,817	0 119,919 * 304,967 426,431	5,095,788 5,393,311 ** 4,655,786 4,964,542	1,085,987 2,539,819 1,922,253	4,009,801 2,853,492 2,733,533	4,009,801 6,863,293 9,596,826

<sup>\*</sup> Implied by values published in the Town's June 30, 2010 audited financial statements

<sup>\*\*</sup> As published in the Town's June 30, 2010 audited financial statements

## SECTION VII - SCHEDULE OF EMPLOYER CONTRIBUTIONS

The Governmental Accounting Standards Board's Statement No. 45 "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions" outlines various requirements of a funding schedule that will amortize the unfunded actuarial liability and cover normal costs. Amortization of the unfunded actuarial liability is to be based on a schedule that extends no longer than 30 years. The contribution towards the amortization of the unfunded actuarial liability may be made in level payments or in payments increasing at the same rate as salary increases. There is no requirement to actually fund the Annual Required Contribution, however.

The illustration on the following exhibit shows what will occur if the Town elects to fully fund its ARC. Projected amounts of ARC and AOC would be higher for partial funding scenarios. In the amortization schedule shown on the following page, the amortization of the unfunded accrued liability is increasing at 4.0% for 30 years. The projection assumes amortization to be on a closed basis for the hypothetical fully funded scenario. The normal cost is estimated to increase at the same rate as the assumed ultimate healthcare trend rate. Projected benefit payments/employer contributions reflect only the benefit for those individuals now employed or retired, not any future entrants. Contributions are assumed to be made on June 30<sup>th</sup>, the end of the fiscal year.

The second illustration shows what will occur if the Town would elect to revert back to a fully pay-as-you basis. The projected amounts under this scenario are based on same basis as the fully funded illustration, except using a 30 year open amortization schedule for purposes of amortizing the unfunded accrued liability. While it is expected to take more than one year of benefit payments to deplete the current value of the assets, these projected amounts are based as if no assets existed for simplicity, as it is intended this basis to be used only for illustration purposes.

Paragraph 12 of GASB 45 stipulates that valuations must be performed at least biennially. This valuation is intended for use for fiscal years ending June 30, 2011

and June 30, 2012. The following projections for other fiscal years are intended only to illustrate long-term implications of Prefunding.

## SECTION VII - SCHEDULE OF EMPLOYER CONTRIBUTIONS

8.00%

Fiscal Year	Normal Cost	Amortization		
Ending In	(with Interest)	of UAL	ARC	Pay-as-You-Go
2012	1,419,590	2,098,076	<del>3,51</del> 7,666	1,460,664
2013	1,490,570	2,181,999	3,672,569	1,459,168
2014	1,565,099	2,269,279	3,834,378	1,651,273
2015	1,643,354	2,360,050	4,003,404	1,840,432
2016	1,725,522	2,454,452	4,179,974	2,002,867
2017	1,811,798	2,552,630	4,364,428	2,172,716
2018	1,902,388	2,654,735	4,557,123	2,390,848
2019	1,997,507	2,760,924	4,758,431	2,556,683
2020	2,097,382	2,871,361	4,968,743	2,801,455
2021	2,202,251	2,986,215	5,188,466	3,027,209
2022	2,312,364	3,105,664	5,418,028	3,228,330
2023	2,427,982	3,229,891	5,657,873	3,421,049
2024	2,549,381	3,359,087	5,908,468	3,641,988
2025	2,676,850	3,493,450	6,170,300	3,889,906
2026	2,810,693	3,633,188	6, <del>44</del> 3,881	4,114,641
2027	2,951,228	3,778,516	6,729,744	4,388,984
2028	3,098,789	3,929,657	7,028,446	4,638,670
2029	3,253,728	4,086,843	7,340,571	4,857,541
2030	3,416,414	4,250,317	7,666,731	5,109,037
2031	3,587,235	4,420,330	8,007,565	5,414,376
2032	3,766,597	4,597,143	8,363,740	5,652,532
2033	3,954,927	4,781,029	8,735,956	5,908,713
2034	4,152,673	4,972,270	9,124,943	6,218,312
2035	4,360,307	5,171,161	9,531,468	6,459,527
2036	4,578,322	5,378,007	9,956,329	6,701,453
2037	4,807,238	5,593,127	10,400,365	6,966,884
2038	5,047,600	5,816,852	10,864,452	7,195,459
2039	5,299,980	6,049,526	11,349,506	7,488,374
2040	5,564,979	6,291,507	11,856,486	7,816,793
2041	5,843,228	6,543,167	12,386,395	8,022,423
2042	6,135,389	-	6,135,389	8,253,210
2043	6,442,158	-	6,442,158	8,451,111

## SECTION VII – SCHEDULE OF EMPLOYER CONTRIBUTIONS

3.50%

Fiscal Year	Normal Cost	Amortization		
Ending In	(with Interest)	of UAL	ARC	Pay-as-You-Go
2012	4,868,523	2,683,471	7,551,994	1,460,664
2013	5,111,949	2,954,939	8,066,888	1,459,168
2014	5,367,546	3,180,713	8,548,259	1,651,273
2015	5,635,923	3,416,609	9,052,532	1,840,432
2016	5,917,719	3,663,505	9,581,224	2,002,867
2017	6,213,605	3,923,105	10,136,710	2,172,716
2018	6,524,285	4,196,081	10,720,366	2,390,848
2019	6,850,499	4,481,814	11,332,313	2,556,683
2020	7,193,024	4,782,977	11,976,001	2,801,455
2021	7,552,675	5,098,071	12,650,746	3,027,209
2022	7,930,309	5,428,777	13,359,086	3,228,330
2023	8,326,824	5,777,043	14,103,867	3,421,049
2024	8,743,165	6,144,388	14,887,553	3,641,988
2025	9,180,323	6,531,217	15,711,540	3,889,906
2026	9,639,339	6,938,021	16,577,360	4,114,641
2027	10,121,306	7,366,984	17,488,290	4,388,984
2028	10,627,371	7,818,025	18,445,396	4,638,670
2029	11,158,740	8,293,522	19,452,262	4,857,541
2030	11,716,677	8,796,183	20,512,860	5,109,037
2031	12,302,511	9,326,774	21,629,285	5,414,376
2032	12,917,637	9,885,441	22,803,078	5,652,532
2033	13,563,519	10,476,338	24,039,857	5,908,713
2034	14,241,695	11,101,026	25,342,721	6,218,312
2035	14,953,780	11,760,016	26,713,796	6,459,527
2036	15,701,469	12,457,872	28,159,341	6,701,453
2037	16,486,542	13,197,117	29,683,659	6,966,884
2038	17,310,869	13,979,674	31,290,543	7,195,459
2039	18,176, <b>41</b> 2	14,809,569	32,985,981	7,488,374
2040	19,085,233	15,687,728	34,772,961	7,816,793
2041	20,039,495	16,616,117	36,655,612	8,022,423
2042	21,041,470	17,602,023	38,643,493	8,253,210
2043	22,093,544	18,648,222	40,741,766	8,451,111

## TOWN OF FOXBOROUGH, ALL GROUPS

Interest (per year):

Fully Funded: 8.00%, net of investment expenses Unfunded: 3.50%, net of investment expenses Partially Funded: 5.75%, net of investment expenses

Actuarial Cost Method:

Projected Unit Credit. Benefits are attributed from date of

hire until first eligibility for retirement.

## Medical and Dental Care Inflation:

<u>Fiscal Year (From – To)</u>	Inflation Rate
FY2012 - FY2013	0.0%
FY2013 – FY2014	7.0%
FY2014 – FY2015	6.5%
FY2015 – FY2016	6.0%
FY2016 – FY2017	5.5%
FY2017 & after	5.0%

## Amortization period:

30-year level percent of pay assuming 4.0% increase in overall payroll (previous valuation assumed 4.5%). The amortization period is a specific number of years that is counted from one date, declining to zero with the passage of time. The amortization is calculated on an open basis while not fully funded (i.e. unfunded or partially funded), but on a closed basis for years after the initial year when the ARC is fully funded.

## Participation:

90% of future retirees and future disabled are assumed to participate in the retiree medical plan. 100% of future retirees and future disabled are assumed to elect life insurance.

50% of employees terminating between ages 50 – 54 and with at least 10 years of service are assumed to participate in the retiree medical plan when becoming Medicare eligible at age 65. It is assumed that these individuals will receive pre-Medicare coverage thru active coverage from another employer. Those terminating prior to 50 with at least 10 years of service are assumed will receive coverage thru another employer.

## TOWN OF FOXBOROUGH, ALL GROUPS

Marital status:

80% of male employees and 60% 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 who elected a non-Medex option.

Post-Age 65 Retirees:

Current retirees over age 65 remain in their current medical plan until death, whether Medicare coordinated or not.

It is assumed that all future post-65 retirees are Medicare eligible. Costs were assumed to be equal to the premium for Medex.

Age-based Morbidity:

Medical per capita costs are adjusted to reflect expected cost increases related to age. The increase in the net incurred claims was assumed to be:

	Annual Increase
<u>Age</u>	<u>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%

## TOWN OF FOXBOROUGH, ALL GROUPS

## Medical Plan Costs:

The Town currently provides medical coverage through the MIIA Health Benefits Trust, which is a fully-insured arrangement reflecting the Town's experience and demographics of the population. Gross per capita costs were developed from reported the monthly premium rate information. Employee cost sharing is based on current rates and projected future rates.

The estimated average gross premium of all non-Medicare retirees and beneficiaries before adjusting for aging for 2011-12 is \$8,475. This amount is \$12,677 when normalized to age 65. The average Medicare eligible retirees' per capita claims cost is \$7,190 for the same period. The amount is \$5,678 when normalized to age 65.

The estimated average gross premiums for future retirees were based on the current proportion of all retirees and beneficiaries before adjusting for aging. All actives and current non-Medicare retirees (based on non-Medicare coverage) were used to normalize the non-Medicare options to age 65, while only the current Medicare retirees were used to normalize the Medicare option.

## Incurred But Unpaid:

The calculations only reflect amounts incurred after the valuation date, and do not include any reserve for incurred but unpaid claims.

Administrative Expenses: Administrative expenses are assumed to be included in the per capita costs. Administrative expenses for life insurance benefits are assumed to be 10% of the face value of the coverage.

## **GROUPS 1 AND 2 (NON-TEACHERS)**

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal and vesting, disability, death, and service retirement are as follows:

			rvice ement
Age	Disability	Male	Female
25	.02%		
30	.03		
35	.06		
40	.10		
45	.15		
50	.19	1.0%	1.5%
55	.24	2.0	5.5
60	.28	12.0	5.0
62	.30	30.0	15.0
65	.30	40.0	15.0
69	.30	30.0	20.0

Years of	Rates of
Service	Withdrawal
0	15.0%
1	12.0
2	10.0
3	9.0
4	8.0
5	7.6
10	5.4
15	3.3
20	2.0
25	1.0
30+	0.0

Mortality: The RP-2000 Combined Healthy Table projected on a generational basis with Scale AA. For the period after disability retirement, the RP-2000 Combined Healthy Table set forward 2 years projected on a generational basis with Scale AA is used.

## **GROUPS 1 AND 2 (TEACHERS)**

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal and vesting, disability, death, and service retirement are as follows:

Age	Disability
25	.02%
30	.03
35	.06
40	.10
45	.15
50	.19
55	.24
60	.28
62	.30
65	.30
69	.30

Years of Service	Rates of Withdrawal
0	15.0%
1	12.0
2	10.0
3	9.0
4	8.0
5	7.6
10	5.4
15	3.3
20	2.0
25	1.0
30+	0.0

5	Male Service Retiremer		Female t Service Retirement	
Age	<20	20+	<20	20+
50	0.00	0.01	0.00	0.01
55	0.02	0.03	0.02	0.04
60	0.12	0.20	0.12	0.16
61	0.15	0.30	0.15	0.20
62	0.18	0.35	0.18	0.25
63	0.15	0.35	0.15	0.25
64	0.25	0.30	0.25	0.30
65	0.40	0.50	0.40	0.40
66	0.40	0.30	0.40	0.30
67	0.40	0.30	0.40	0.25
68	0.40	0.30	0.40	0.35
69	0.40	0.40	0.40	0.35
70	1.00	1.00	1.00	1.00

Teachers electing the increased benefit under Chapter 114 of the Acts of 2000 were assumed to have higher rates of retirement from ages 54 to 62 if their service was greater than 30 years. These rates are the same for males and females. The rate at age 54 is 0.035. The rate increases to 0.06 at age 55, 0.18 at age 56, and 0.30 at age 57. The rate for ages 58, 59, and 62 is 0.40. The rate for ages 60 and 61 is 0.35.

Mortality: The RP-2000 Combined Healthy Table projected on a generational basis with Scale AA. For the period after disability retirement, the RP-2000 Combined Healthy Table set forward 2 years projected on a generational basis with Scale AA is used.

## GROUP 4

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of disability, service retirement, and withdrawal are as follows:

Age	Disability	Service Retirements
25	0.20%	
30	0.30	
35	0.30	
40	0.30	
45	1.00	1.0%
50	1.25	2.0
55	1.20	15.0
60	0.85	20.0
62	0.75	25.0
65	0.00	100.0

Years of Service	Rates of Withdrawal
0	1.5%
1	1.5
2	1.5
3	1.5
4	1.5
5	1.5
6	1.5
7	1.5
8	1.5
9	1.5
10	1.5
11+	0.0

Mortality: The RP-2000 Combined Healthy Table projected on a generational basis with Scale AA. For the period after disability retirement, the RP-2000 Combined Healthy Table set forward 2 years projected on a generational basis with Scale AA is used.

## SCHEDULE B - SUMMARY OF PROGRAM PROVISIONS

Retirement Eligibility: Age 55 with 10 years of service, or 20 years of

service.

Disability Eligibility: 10 years of service.

Termination Eligibility: 10 years of service. Employees may not elect

coverage until age 55.

Section 18 Coverage: The Town has adopted Section 18 under Chapter 32B

of the General Laws of Massachusetts, which requires that an employee or retiree must participate in the Medicare program as the primary payer once one

reaches age 65 and is Medicare eligible.

Spousal Coverage: Current and future retirees may elect to include their

spouses as part of their post-retirement benefits. There is lifetime spousal coverage for medical insurance even after the death of the retiree. The spouse of an employee who dies prior to termination from service but who was eligible for retirement benefits is eligible to receive medical insurance for life or until remarriage. No remarriage was assumed for

this valuation.

Retiree Contributions: Retirees and dependents pay 50% portion of their

stated post-retirement medical premiums as described in Section III. Surviving spouses contribute 100% of the medical premiums. The medical coverage of The Town is fully-insured, participating in

the MIIA trust.

Previously, some individuals (those under the POS and HMO options) were only contributing 30% of the cost for pre-Medicare coverage. These contributions were increased to 40% during FY2012, and 50%

during FY2013.

Life Insurance: \$3,000 basic life insurance. Retirees contribute \$0.82

per month.

## SCHEDULE C - CONSIDERATIONS OF HEALTH CARE REFORM

Early Retiree Reinsurance Program ("ERRP") - Effective June 1, 2010: This program subsidizes 80% of pre-Medicare retiree costs between \$15,000 and \$90,000. Depending on the application to the program, funds may be used to lower employee premium costs, or to reduce certain employer costs. We have not reflected any potential future ERRP monies since the program has now ceased paying benefits.

Removal of Annual or Lifetime Maximum: Any cost in relations to removal of any historic annual or lifetime maximums is assumed to already have been reflected in the premiums that we were provided.

Medicare Advantage Plans - Effective January 1, 2011: The law provides for reductions to be phased in to the amounts that would be provided to Medicare Advantage plans starting in 2011. Since Foxborough is not currently providing Medicare Advantage arrangements, we did not assume this had any impact on our valuation.

**Expansion of Child Coverage to Age 26:** Since few retirees cover children on retiree health plans, this provision will likely have a relatively small effect on the gross benefit cost. The cost covering children through age 26 is assumed to already have been reflected in the premiums that we were provided.

Medicare Part D Subsidy - Shrinking Medicare Prescription Drug "Donut Hole"

- Starting January 1, 2011: The "donut hole" is being phased out, for ultimate coverage in 2020 of 75% of generic drugs and 25% of brand drugs. In addition, for individuals in Medicare Part D, a 50% brand discount is available in the donut hole starting in 2011. The improvements are not expected to have any impact on the Retiree Drug Subsidy program that Foxborough participates in. In any case, RDS payments are not reflected as on ongoing offsetting item in GASB 45 valuations. We do not think that the improved Medicare Part D benefits will cause any change in participation levels given the level of the plan's subsidy for benefits for Medicare eligible participants.

Excise Tax on High-Cost Employer Health Plans (aka Cadillac Tax) - Effective January 1, 2018: A tax will be imposed on coverage greater than \$11,850 per individual and \$30,950 per family for pre-Medicare retirees and coverage greater than \$10,200 per individual and \$27,000 per family for post-Medicare retirees. These limits will be adjusted for various factors including for high risk industries, for the age and gender of the employer's workforce, for trend in excess of anticipating through 2018, and for cost of living thereafter. Separate dental and vision coverage is not included. The cost of this tax is assumed to be passed back in the form of increased administrative costs. There is considerable uncertainty about how the tax would be applied, and considerable latitude in grouping of participants for tax purposes. We have estimated the impact using the weighted average of the stated premiums projected using the valuation trends, a 40% tax rate of the insurer, and a 3.0% assumed CPI. We reflected the estimated amounts in the valuation.

Other: We have not identified any other specific provision of health care reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will continue to monitor any potential impacts.

## SCHEDULE D - GLOSSARY OF TERMS

## Actuarial accrued liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of OPEB benefits and expenses which is not provided for by future Normal Costs and therefore is the value of benefits already earned.

## Actuarial assumptions

Assumptions as to the occurrence of future events affecting OPEB costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided OPEB benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.

## Actuarial cost method

A procedure for determining the Actuarial Present Value of OPEB benefits and expenses 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.

## Actuarial experience gain or loss

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

## Amortization (of unfunded actuarial accrued liability)

That portion of the OPEB plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability or the Unfunded Frozen Actuarial Accrued Liability.

## Annual OPEB cost

An 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 expense to a defined benefit OPEB plan, calculated in accordance with the parameters. It is the value of the cash contributions for a funded plan and the value of the expense entry in the profit and loss section of the financial statements.

## Closed amortization period (closed basis)

A specific number of years that is counted from one date and, therefore, declines to zero with the passage of time. For example, if the amortization period initially is thirty years on a closed basis, twenty-nine years remain after the first year, twenty-eight years after the second year, and so forth. In contrast, an open amortization period (open basis) is one that begins again or is recalculated at each actuarial valuation date. Within a maximum number of years specified by law or policy (for example, thirty years), the period may increase, decrease, or remain stable.

## Covered payroll

Annual compensation paid to active employees covered by an OPEB plan. If employees also are covered by a pension plan, the covered payroll should include all elements included in compensation on which contributions to the pension plan are based. For example, if pension contributions are calculated on base pay including overtime, covered payroll includes overtime compensation.

## Defined benefit OPEB plan

An OPEB plan having terms that specify the benefits to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

## Funded ratio

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

## SCHEDULE D - GLOSSARY OF TERMS

## Funding policy

The program for the amounts and timing of contributions to be made by plan members, employer(s), and other contributing entities (for example, state government contributions to a local government plan) to provide the benefits specified by an OPEB plan.

## 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, plan design, and technological developments.

## Investment return assumption (discount rate)

The rate used to adjust a series of future payments to reflect the time value of money.

## Level dollar amortization method

The amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.

## Level percentage of projected payroll amortization method

Amortization payments are calculated so that they are a constant percentage of the projected payroll of active plan members over a given number of years. The dollar amount of the payments generally will increase over time as payroll increases due to inflation; in dollars adjusted for inflation, the payments can be expected to remain level.

## **Net OPEB obligation**

The cumulative difference since the effective date of this Statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt. It will be included as a balance sheet entry on the financial statements.

## Normal cost

That portion of the Actuarial Present Value of OPEB benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. It is the value of benefits to be accrued in the valuation year by active employees.

## **OPEB-related debt**

All long-term liabilities of an employer to an OPEB plan, the payment of which is not included in the annual required contributions of a sole or agent employer (ARC) or the actuarially determined required contributions of a cost-sharing employer. Payments generally are made in accordance with installment contracts that usually include interest. Examples include contractually deferred contributions and amounts assessed to an employer upon joining a multiple-employer plan.

## Other postemployment benefits

Postemployment benefits other than pension benefits. Other postemployment benefits (OPEB) include postemployment healthcare benefits, regardless of the type of plan that provides them, and all postemployment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

## Pay-as-you-go

A method of financing an OPEB plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

## Required supplementary information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.