

ADDENDUM TWO REQUEST FOR PROPOSALS (RFP) Post-Employment Benefits Other than Pensions Actuarial Valuation June 15, 2018

The following are answers to questions received by potential proposers.

- 1. Please provide copies of the most recent OPEB Actuarial valuation reports for GATRA. Attached
- 2. Please provide a copy of GATRA's most recent Comprehensive Annual Financial Report (CAFR). *GATRA is not required to prepare, and does not issue a CAFR.*
- 3. Please provide the actuarial fees paid for FY2015/2016, 2016/2017, and scheduled for FY2017/2018, for GATRA's OPEB actuarial valuation and consulting services. FY2015/2016 \$5,000 and no fees paid for FY2016/2017. Fees for FY2017/2018 will be based upon responses received.
- 4. Please provide a reason for putting GATRA's OPEB work out for bid. *Contracts are put out to bid in keeping with GATRA's procurement procedures.*



GREATER ATTLEBORO TAUNTON REGIONAL TRANSIT AUTHORITY

OTHER POSTEMPLOYMENT BENEFITS PROGRAM

ACTUARIAL VALUATION

July 1, 2014

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October 29, 2015

Mr. Daniel W. Burgess Chief Financial Officer Greater Attleboro Taunton Regional Transit Authority 10 Oak Street Taunton, MA 02780

Dear Dan:

Enclosed is our report summarizing the results of an actuarial valuation of the Greater Attleboro Taunton Regional Transit Authority's Other Postemployment Benefits (OPEB) as of July 1, 2014. Our valuation was performed in accordance with the provisions contained in the GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions (GASB 45).

A summary of the valuation results is shown in Section 1. The principal results of our valuation are summarized in Section 2. The Plan Provisions and Actuarial Assumptions and Methods are shown in Sections 6 and 7, respectively. Section 8 summarizes the demographic profile of active employees and retirees.

The required disclosures under GASB 45 are presented in Section 3.

Our best estimate health care cost trend assumptions are based on recent experience and anticipated future cost increases under the Greater Attleboro Taunton Regional Transit Authority medical plans. Section 5 illustrates the sensitivity of actuarial accrued liability and annual required contribution to a one percentage increase and decrease in the health care cost trend assumption for each future year.

Our actuarial valuation is based on a discount rate of 3.5% compounded annually. To illustrate the impact on cost of fully prefunding the Authority's benefit liabilities, our report also includes valuation results based on an alternative 7.5% discount rate. Section 5 illustrates the sensitivity of actuarial accrued liability and annual required contribution to a one percentage increase and decrease in the discount rate.

We also provide 30-year forecasts of the OPEB liability under a pay-as-you-go funding and full prefunding arrangement as well as a 10-year forecast of the Annual OPEB Cost and the Net OPEB Obligation in Section 4.

Mr. Daniel W. Burgess October 29, 2015 Page 2

Our calculations were based on participant census data and other information provided by the Greater Attleboro Taunton Regional Transit Authority and the benefit provisions of the medical plans as described in the benefit summaries. Our valuation is also based on medical plan rates provided by the Authority in the file "Health Insurance Rates FY16" and the Medicare supplemental plan premium rates provided in the retiree data.

Our valuation follows generally accepted actuarial methods and we perform such tests as we consider necessary to assure the accuracy of the results. The amounts presented in this report have been appropriately determined according to the actuarial assumptions and methods stated herein.

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

We appreciate this opportunity to be of service to the Greater Attleboro Taunton Regional Transit Authority. We are available to answer any questions with respect to our valuation.

Respectfully submitted,

Linda L. Bournival, FSA, EA, MAAA

Member, American Academy of Actuaries

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ACTUARIAL CERTIFICATION

This report presents the results of the Actuarial Valuation for the Greater Attleboro Taunton Regional Transit Authority Postemployment Benefits Other Than Pensions as of July 1, 2014. The report presents the accounting and financial reporting information in accordance with Statement Number 45 of the Governmental Accounting Standards Board (GASB 45).

This valuation was performed using employee data and financial information provided to us by the Authority. Although we did not audit the data used in the valuation, we believe that the information is complete and reliable.

This report was completed in accordance with generally accepted actuarial standards and procedures, and conforms to the Code of Professional Conduct of the American Academy of Actuaries. The actuarial assumptions other than those explicitly applicable to the postemployment benefit plans are consistent with those used by the Taunton Contributory Retirement System's actuaries for the Retirement System pension valuations.

Future actuarial valuation results may differ significantly from the current results presented in this report. Examples of potential sources of volatility include plan experience differing from that anticipated by the economic or demographic assumptions, the effect of new entrants, changes in economic or demographic assumptions, the effect of law changes and the delayed effect of smoothing techniques.

This report is intended for the sole use of the Greater Attleboro Taunton Regional Transit Authority and is intended to provide information to comply with the stated purpose of the report. It may not be appropriate for other purposes.

The undersigned credentialed actuaries are Members of the American Academy of Actuaries and together meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein. They are available to answer any questions with regard to this report.

Respectfully submitted,

Linda L. Bournival, FSA, EA, MAAA

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BACKGROUND

The Greater Attleboro Taunton Regional Transit Authority provides postemployment medical benefits to Authority retirees and their covered dependents. The Authority provides benefits as follows:

- ◆ Group 1 employees hired before April 2, 2012: retire after attaining age 55 with 10 or more years of service or any age with 20 or more years of service
- Group 1 employees hired after April 1, 2012: retire after attaining age 60 with 10 or more years of service

Medical coverage continues to the spouse after the death of the retiree provided the spouse makes the required contributions.

GASB 45

The Governmental Accounting Standards Board (GASB) is responsible for establishing accounting standards for governmental entities. Calculations developed in accordance with GASB standards are required when providing financial statements.

GASB believes that postemployment benefits are a form of deferred compensation whose cost should be recognized while the employee actually renders services rather than when the actual benefits are paid, many years later. Ideally under the GASB standard the entire postemployment liability is recognized by the time an active participant begins to receive postemployment benefits. GASB 45's focus is on postemployment benefits other than pensions, such as medical, dental and life insurance benefits. Unlike pensions where sponsors are pre-funding for benefits due in the future, the impact of GASB 45 will be to significantly increase cash pay-as-you-go expense.

The effective date for GASB 45 is a function of the Authority's total annual revenues in the first fiscal year ending after June 15, 1999. We understand that this is your fiscal year that ended June 30, 1999, and that your related revenues were less than \$10 million. As a result, the Authority was required to comply with GASB 45 for the fiscal year ending June 30, 2010.

ACTUARIAL VALUATION

As of July 1, 2014, there are 23 active employees who may be eligible for benefits in the future and 4 retired employees, covered spouses and survivors who are currently receiving benefits. Coverage is for individuals and families or individuals and spouses depending on the coverage selected.

Prior to GASB 45, the annual cost recognized was the annual premiums or benefits paid plus administrative expenses less any participant contributions paid towards the coverage. Under GASB 45, an annual cost for postemployment coverage is developed for any person who is currently receiving or who is currently actively employed and may be eligible to receive benefits in the future. In developing the GASB 45 cost for the Greater Attleboro Taunton Regional Transit Authority, the payment of future benefits is determined using the current schedule of premiums under the plans provided by the Authority modified to reflect the population and the fact that actual healthcare expenses are higher as individuals age. These age-adjusted costs are increased in the future under the annual healthcare cost trend rate assumptions. The age-adjusted per capita costs utilized in this valuation are detailed in Section 7, Actuarial Assumptions and Methods.

It is important to understand that even though the Authority charges participants for coverage based on the individual or family premium schedule presented in our report, in developing a liability for the Authority, GASB requires that these premiums be adjusted as noted above. The plan premium represents less than 100% of the actual cost that is required to be recognized under the GASB standard.

SUMMARY OF PRINCIPAL RESULTS

A summary of the principal results of the current and prior valuations is presented below:

<u>July 1, 2014</u>	<u>June 30, 2012</u>
23	14
48.6	N/A
8.5	N/A
3	6
68.0	69.4
1	N/A
3.50%	3.50%
\$3,209,291	\$1,013,512
\$229,037	\$62,226
\$0	\$0
\$3,209,291	\$1,013,512
\$340,209	\$92,944
\$30,083	\$21,427
	23 48.6 8.5 3 68.0 1 3.50% \$3,209,291 \$229,037 \$0 \$3,209,291 \$340,209

^{*} Results shown for the June 30, 2012 valuation are based on the report prepared by Buck Consultants.

ACTUARIAL ASSUMPTIONS

The most important assumption for GASB 45 is the discount rate, which is used to discount future benefits to current age. GASB 45 requires that the discount rate accurately reflects the rate of return on assets dedicated to paying the retiree medical benefits. This means that a traditional pay-as-you-go system, which pays benefits from the Authority's annual budget and not a dedicated trust, must use a discount rate close to the rate of return on cash. Full pre-funding by use of a dedicated trust with a mixture of stocks and bonds can employ a higher discount rate that accurately reflects the expected return on trust assets dedicated to pay retiree medical benefits. For the Greater Attleboro Taunton Regional Transit Authority, we selected a 3.5% discount rate to reflect a pay-as-you-go system with an expected return close to the rate of return on cash.

CHANGES

Some assumptions used in this valuation have changed from those used in the June 30, 2012 valuation and are detailed in Section 7. The major assumption changes are summarized below:

• Actuarial Standards of Practice (ASOPs) now require that the payment of future benefits be determined using the current schedule of premiums under the plans provided by the Authority, modified to reflect the fact that actual healthcare expenses are higher as individuals age. In the previous valuation, the plan was considered to be "community rated" and therefore did not adjust the schedule of premiums as described above.

RESULTS

Actuarial Accrued Liability (AAL)

Actuarial Value of Assets

We have provided results based on a discount rate of 3.5%. As shown in Table 4.3 of Section 4, the Annual OPEB Cost for the fiscal year ending June 30, 2015 under GASB 45 is \$342,663 and the estimated Annual OPEB Cost for the fiscal year ending June 30, 2016 under GASB 45 is \$363,669.

The accumulated Net OPEB Obligation as of June 30, 2015 is \$912,829 and the estimated Net OPEB Obligation as of June 30, 2016 is \$1,247,582.

The Unfunded Actuarial Accrued Liability (UAAL) as of July 1, 2014 is \$3,209,291. The UAAL is shown below:

Actives \$2,727,532
Retirees, Beneficiaries and Surviving Spouses 481,759

Total Actuarial Accrued Liability \$3,209,291

Unfunded Actuarial Accrued Liability (UAAL) \$3,209,291

Greater Attleboro Taunton Regional Transit Authority Postemployment Benefits Other Than Pensions Actuarial Valuation as of July 1, 2014

\$0

ACTUARIAL GAIN/LOSS ANALYSIS

♦ Total (Gain)/Loss

In performing the actuarial valuation, various assumptions are made regarding future premium rates, mortality, retirement, disability and turnover rates as well as investment returns. A comparison of the results of the current valuation and the prior valuation is made to determine how closely actual experience relates to expected. Below is the development of the estimated Actuarial Gain or Loss for the current two-year period:

June 30	<u>2013</u>	<u>2014</u>
Unfunded Actuarial Accrued Liability, beginning of year	\$1,013,512	\$1,091,590
Normal Cost	62,226	64,715
OPEB Contributions, plus benefit payments	(21,427)	(20,496)
Interest	37,279	40,115
Expected Unfunded Actuarial Accrued Liability, end of		
year	\$1,091,590	\$1,175,924
Actual Unfunded Actuarial Accrued Liability		\$3,209,291
(Gain)/Loss during the two-year period		\$2,033,367
The actuarial loss of \$2,033,367 was mostly comprised of the fo	llowing:	
• loss as a result of less than favorable demographic exp	erience	659,579
 loss as a result of current premium rates greater than exprior valuation and use of age-based and gender-based 	•	1,373,788

REIMBURSEMENT FOR HEALTHCARE PREMIUM CONTRIBUTIONS

Whenever the service of a retired employee is attributable to service in more than one Massachusetts governmental unit and the retired employee receives a healthcare premium contribution, Section 9A1/2 of M.G.L. Section 32B provides for reimbursement by other governmental units for the portion of healthcare premium contributions that corresponds to the percentage of the retiree's creditable service that is attributable for each governmental unit. The other governmental units shall be charged based on the Greater Attleboro Taunton Regional Transit Authority's contribution rate or the contribution rate of the first employer, whichever is lower.

For purposes of this valuation, we have not taken into account any prior service rendered at other Massachusetts entities for current or future retirees for the Greater Attleboro Taunton Regional Transit Authority nor have we taken into account any service rendered by former Greater Attleboro Taunton Regional Transit Authority employees currently working at or retired from other Massachusetts entities that may notify the Greater Attleboro Taunton Regional Transit Authority of reimbursement due for former Greater Attleboro Taunton Regional Transit Authority employees.

Greater Attleboro Taunton Regional Transit Authority Postemployment Benefits Other Than Pensions Actuarial Valuation as of July 1, 2014

2,033,367

The Greater Attleboro Taunton Regional Transit Authority has not established an irrevocable OPEB trust for the purpose of prefunding OPEB liabilities. Plan assets segregated and restricted in an OPEB trust must be dedicated to providing plan benefits to retirees and beneficiaries in accordance with the terms of the plan and must be legally protected from creditors of the employer. Further, employer contributions to the trust must be irrevocable.

The Actuarial Value of Plan Assets is equal to the market value. The asset activity during the 2-year period July 1, 2012 through June 30, 2014 follows:

TABLE 2.1 - OPEB TRUST ASSETS

Market Value of Assets		
Fiscal Year Ending	6/30/2014	6/30/2013
Assets as of July 1	\$0	\$0
OPEB Trust Contributions	0	0
Benefits Paid	0	\$0
Expenses	0	0
Investment Earnings	0	0
Assets as of June 30	\$0	\$0

The Actuarial Accrued Liability is the portion of the Actuarial Present Value of Future Benefits which is allocated to all periods prior to a valuation year and therefore is not provided for by future Normal Costs. Below is the Actuarial Accrued Liability assuming a discount rate of 3.5%, the rate of return on cash, and 7.5%, the rate of return on a dedicated trust if the Authority were to fully pre-fund benefits:

TABLE 2.2 - ACTUARIAL ACCRUED LIABILITY

	Pay-As-You-Go	Full Pre-Funding
Discount Rate	3.5%	7.5%
Current Active Employees		
Pre-Medicare Gross Benefit	\$810,443	\$523,093
Pre-Medicare Participant Contributions	49,652	32,428
Net Pre-Medicare Benefit	\$760,791	\$490,665
Post - Medicare Gross Benefit	\$2,108,562	\$851,293
Post - Medicare Participant Contributions	141,821	59,752
Net Post - Medicare Benefit	\$1,966,741	\$791,541
Total Current Active Employees	\$2,727,532	\$1,282,206
Current Retirees		
Pre-Medicare Gross Benefit	\$14,959	\$14,679
Pre-Medicare Participant Contributions	1,025	1,005
Net Pre-Medicare Benefit	\$13,934	\$13,674
Post - Medicare Gross Benefit	\$502,066	\$339,856
Post - Medicare Participant Contributions	34,241	23,936
Net Post - Medicare Benefit	\$467,825	\$315,920
Total Current Retirees	\$481,759	\$329,594
Total Actuarial Accrued Liability (AAL)	\$3,209,291	\$1,611,800

The Normal Cost is the portion of the Actuarial Present Value of Future Benefits which is attributed to services rendered by active employees in the current year. Below is the Normal Cost assuming a discount rate of 3.5%, the rate of return on cash, and 7.5%, the rate of return on a dedicated trust if the Authority were to fully pre-fund benefits:

TABLE 2.3 - NORMAL COST

	Pay-As-You-Go	Full Pre-Funding
Discount Rate	3.5%	7.5%
Current Active Employees		
Pre-Medicare Gross Benefit	\$51,455	\$29,178
Pre-Medicare Participant Contributions	3,031	1,728
Net Pre-Medicare Benefit	\$48,424	\$27,450
Post - Medicare Gross Benefit	\$193,491	\$71,871
Post - Medicare Participant Contributions	12,878	4,976
Net Post - Medicare Benefit	\$180,613	\$66,895
Total Current Active Employees	\$229,037	\$94,345
Current Retirees		
Pre-Medicare Gross Benefit	\$0	\$0
Pre-Medicare Participant Contributions	0	0
Net Pre-Medicare Benefit	\$0	\$0
Post - Medicare Gross Benefit	\$0	\$0
Post - Medicare Participant Contributions	0	0
Net Post - Medicare Benefit	\$0	\$0
Total Current Retirees	\$0	\$0
Total Normal Cost (NC)	\$229,037	\$94,345

Under GASB 45, the Annual Required Contribution (ARC) of the employer equals the Normal Cost plus a provision for amortizing the Unfunded Actuarial Accrued Liability. We have assumed increasing dollar amortization over the maximum acceptable amortization period of 30 years. For the period beginning July 1, 2014, the ARC, calculated under the parameters of this actuarial valuation, would be:

TABLE 2.4 - ANNUAL REQUIRED CONTRIBUTION and ANNUAL OPEB COST

		Pay-As-You-Go	Full Pre-Funding
	Discount Rate	3.5%	7.5%
1.	Normal Cost	\$229,037	\$94,345
2.	Unfunded Actuarial Accrued Liability		
3.	 a. Actuarial Accrued Liability b. Actuarial Value of Plan Assets c. Unfunded Actuarial Accrued Liability Amortization of Unfunded Actuarial Accrued Liability	\$3,209,291 \$0 \$3,209,291	\$1,611,800 \$0 \$1,611,800
	 a. Unfunded Actuarial Accrued Liability b. Amortization Period in years c. Factor Increasing Rate d. Amortization Factor e. Amortization Amount (3.a. / 3.d.) 	\$3,209,291 30 4.0% 32.20 \$99,667	\$1,611,800 30 4.0% 19.34 \$83,340
4.	Interest on 1. and 3.e.	\$11,505	\$13,326
5.	Annual Required Contribution (1. + 3.e. + 4.)	\$340,209	\$191,011
6.	Net OPEB Obligation, beginning of year	\$600,249	Not Applicable
7.	Interest on Net OPEB Obligation at 3.5%	\$21,009	Not Applicable
8.	Adjustment to Annual Required Contribution at 3.5%	(\$18,555)	Not Applicable
9.	Annual OPEB Cost (5. + 7. + 8.)	\$342,663	Not Applicable

SECTION 3 - GASB 45 ACCOUNTING DISCLOSURE

GASB 45 requires disclosure of the annual OPEB cost, the Net OPEB Obligation and the Schedule of Funding Progress. In addition, information about the Substantive Plan Provisions and the Actuarial Methods and Assumptions used in the valuation are disclosed, which are provided in Section 6 and Section 7, respectively.

Annual OPEB Cost and Net OPEB Obligation ¹					
Fiscal Year Ending	<u>6/30/2015</u>	6/30/2014	6/30/2013		
Discount rate	3.50%	3.50%	3.50%		
Annual Required Contribution	\$340,209	\$103,742	\$98,176		
Interest on Net OPEB Obligation	21,009	18,047	15,158		
Adjustment to annual required contribution	(18,555)	(15,469)	10,271		
Annual OPEB Cost	\$342,663	\$106,320	\$123,605		
Expected Benefit Payments	(30,083)	(21,688)	(17,812)		
Employer contributions to OPEB Trust	-	-	-		
Total employer contributions	(30,083)	(21,688)	(17,812)		
Change in Net OPEB Obligation	\$312,580	\$84,632	\$105,793		
Net OPEB Obligation - beginning of year	\$600,249	\$515,617	\$409,824		
Net OPEB Obligation - end of year	\$912,829	\$600,249	\$515,617		

¹ Entries for FY2013 and FY2014 are based on information provided in the Authority's audited financial statements.

		Plan History	
		Percentage of Annual OPEB	
Fiscal Year Ended	Annual OPEB Cost	Cost Contributed	Net OPEB Obligation
6/30/2015	342,663	8.8%	912,829
6/30/2014	106,320	20.4%	600,249
6/30/2013	123,605	14.4%	515,617

	Schedule of Funding Progress									
Actuarial Valuation Date	Valuation Assets Liability		Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) / c)				
7/1/2014	0	3,209,291	3,209,291	0.00%	1,053,718	304.6%				
6/30/2012	0	1,013,512	1,013,512	0.00%	702,263	144.3%				
6/30/2010	0	1,448,456	1,448,456	0.00%	643,633	225.0%				

OVERVIEW

In Section 4, we have provided 30-year forecasts of the annual funding requirements, accrued liability, assets and unfunded actuarial accrued liability under a pay-as-you-go funded scenario and fully funded scenario. The entries in Tables 4.1 and 4.2 are based on the assumptions stated below:

- ♦ Expected Benefit Payments are developed in the actuarial valuation and are based on the assumptions detailed in Section 7.
- Normal Cost is assumed to increase annually by 4%.
- ♦ Assets are assumed to grow annually at the selected discount rate plus OPEB Trust Contributions made at the end of each fiscal year.
- ♦ Actuarial Accrued Liability (AAL), end of year, equals AAL, beginning of year, plus Normal Cost less Expected Benefit Payments plus interest on these items.
- ♦ Unfunded Actuarial Accrued Liability (UAAL) equals the AAL less Assets.
- ◆ The Annual Required Contribution (ARC) is the sum of the Normal Cost, the Amortization Amount and Interest.

Table 4.1 is based on funding the Expected Benefit Payments on a pay-as-you-go basis.

- ◆ The assumed discount rate is 3.5%.
- ◆ Amortization Amount is the amount necessary to amortize the Unfunded Actuarial Accrued Liability over 30 years at a discount rate of 3.5% on an open amortization basis. The open amortization period is 30 years, recalculated at each valuation.

Table 4.2 is based on fully funding the Annual Required Contribution (ARC) each year.

- ◆ The assumed discount rate is 7.5%.
- ♦ Amortization Amount is the amount necessary to amortize the Unfunded Actuarial Accrued Liability over 30 years at a discount rate of 7.5% on a closed amortization basis. The closed amortization period is 30 years at year one declining to zero after 30 years. This method fully funds the UAL at the end of 30 years.
- Assumes OPEB Trust Contributions equal to the excess of the ARC over the Expected Benefit Payments.

TABLE 4.1 - Funding Expected Benefit Payments

			(3)		(5)				
		(2)	Expected	(4)	Unfunded Actuarial	(6)		(8)	(9)
FYE June	(1)	Actuarial Accrued	Benefit	Actuarial Value	Accrued Liability	Amortization	(7)	ARC	OPEB Trust
30	Normal Cost	Liability	Payments	of Assets	(2) - (4)	Amount	Interest	(1) + (6) + (7)	Contributions
2015	229,037	3,209,291	30,083	-	3,209,291	99,667	11,505	340,209	-
2016	238,198	3,528,065	28,916	-	3,528,065	109,567	12,172	359,937	-
2017	247,726	3,868,665	43,066	-	3,868,665	120,145	12,875	380,746	-
2018	257,635	4,216,652	57,213	-	4,216,652	130,952	13,601	402,188	-
2019	267,940	4,572,681	78,902	-	4,572,681	142,009	14,348	424,297	-
2020	278,658	4,929,772	83,353	-	4,929,772	153,099	15,111	446,868	-
2021	289,804	5,305,926	94,358	-	5,305,926	164,780	15,910	470,494	-
2022	301,396	5,695,585	116,572	-	5,695,585	176,882	16,740	495,018	-
2023	313,452	6,088,281	119,186	-	6,088,281	189,077	17,589	520,118	-
2024	325,990	6,504,540	148,208	-	6,504,540	202,004	18,480	546,474	-
2025	339,030	6,918,819	153,011	-	6,918,819	214,870	19,387	573,287	-
2026	352,591	7,356,208	148,121	-	7,356,208	228,454	20,337	601,382	-
2027	366,695	7,827,916	152,275	-	7,827,916	243,103	21,343	631,141	-
2028	381,363	8,326,505	177,646	-	8,326,505	258,587	22,398	662,348	-
2029	396,618	8,831,915	196,013	-	8,831,915	274,283	23,482	694,383	-
2030	412,483	9,352,118	187,456	-	9,352,118	290,438	24,602	727,523	-
2031	428,982	9,915,654	191,296	-	9,915,654	307,940	25,792	762,714	-
2032	446,141	10,512,083	191,801	-	10,512,083	326,462	27,041	799,644	-
2033	463,987	11,146,633	215,026	-	11,146,633	346,169	28,355	838,511	-
2034	482,546	11,798,235	231,890	-	11,798,235	366,405	29,713	878,664	-
2035	501,848	12,474,695	252,906	-	12,474,695	387,413	31,124	920,385	-
2036	521,922	13,173,428	274,590	-	13,173,428	409,113	32,586	963,621	-
2037	542,799	13,895,333	304,586	=	13,895,333	431,532	34,102	1,008,433	-
2038	564,511	14,633,596	304,806	-	14,633,596	454,460	35,664	1,054,635	-
2039	587,091	15,419,947	321,609	-	15,419,947	478,880	37,309	1,103,280	-
2040	610,575	16,240,096	349,973	-	16,240,096	504,351	39,022	1,153,948	-
2041	634,998	17,084,400	344,269	-	17,084,400	530,571	40,795	1,206,364	-
2042	660,398	17,989,335	355,114	-	17,989,335	558,675	42,668	1,261,741	-
2043	686,814	18,941,199	370,199	-	18,941,199	588,236	44,627	1,319,677	-
2044	714,287	19,938,372	372,014	-	19,938,372	619,204	46,672	1,380,163	-
2045	742,858	20,997,033	349,331	-	20,997,033	652,082	48,823	1,443,763	-

Greater Attleboro Taunton Regional Transit Authority Postemployment Benefits Other Than Pensions Actuarial Valuation as of July 1, 2014

30 years open, 3.5% discount rate.

TABLE 4.2 - Funding the Annual Required Contribution (ARC)

			(3)		(5)				
		(2)	Expected	(4)	Unfunded Actuarial	(6)		(8)	(9)
FYE June	(1)	Actuarial Accrued	Benefit	Actuarial Value of	Accrued Liability	Amortization	(7)	ARC	OPEB Trust
30	Normal Cost	Liability	Payments	Assets	(2) - (4)	Amount	Interest	(1) + (6) + (7)	Contributions
2015	94,345	1,611,800	30,083	-	1,611,800	83,340	13,326	191,011	-
2016	98,119	1,804,023	28,916	-	1,804,023	95,199	14,499	207,817	178,901
2017	102,044	2,015,887	43,066	178,901	1,836,986	98,976	15,077	216,097	173,031
2018	106,126	2,233,710	57,213	365,350	1,868,360	102,940	15,680	224,746	167,533
2019	110,371	2,458,111	78,902	560,284	1,897,827	107,101	16,310	233,782	154,880
2020	114,786	2,682,216	83,353	757,185	1,925,031	111,338	16,959	243,083	159,730
2021	119,377	2,923,424	94,358	973,704	1,949,720	115,779	17,637	252,793	158,435
2022	124,152	3,176,653	116,572	1,205,167	1,971,486	120,433	18,344	262,929	146,357
2023	129,118	3,431,793	119,186	1,441,912	1,989,881	125,229	19,076	273,423	154,237
2024	134,283	3,708,793	148,208	1,704,292	2,004,501	130,247	19,840	284,370	136,162
2025	139,654	3,983,099	153,011	1,968,276	2,014,823	135,496	20,636	295,786	142,775
2026	145,240	4,278,948	148,121	2,258,672	2,020,276	140,884	21,459	307,583	159,462
2027	151,050	4,607,881	152,275	2,587,534	2,020,347	146,508	22,317	319,875	167,600
2028	157,092	4,963,576	177,646	2,949,199	2,014,377	152,373	23,210	332,675	155,029
2029	163,376	5,327,072	196,013	3,325,418	2,001,654	158,484	24,140	346,000	149,987
2030	169,911	5,706,219	187,456	3,724,811	1,981,408	164,843	25,107	359,861	172,405
2031	176,707	6,129,384	191,296	4,176,577	1,952,807	171,449	26,112	374,268	182,972
2032	183,775	6,587,752	191,801	4,672,792	1,914,960	178,302	27,156	389,233	197,432
2033	191,126	7,087,591	215,026	5,220,683	1,866,908	185,393	28,239	404,758	189,732
2034	198,771	7,609,595	231,890	5,801,966	1,807,629	192,917	29,377	421,065	189,175
2035	206,722	8,162,103	252,906	6,426,288	1,735,815	200,441	30,537	437,700	184,794
2036	214,991	8,743,581	274,590	7,093,054	1,650,527	208,663	31,774	455,428	180,838
2037	223,591	9,355,875	304,586	7,805,871	1,550,004	216,784	33,028	473,403	168,817
2038	232,535	9,993,340	304,806	8,560,128	1,433,212	225,703	34,368	492,606	187,800
2039	241,836	10,688,010	321,609	9,389,938	1,298,072	234,733	35,743	512,312	190,703
2040	251,509	11,427,975	349,973	10,284,886	1,143,089	244,250	37,182	532,941	182,968
2041	261,569	12,205,472	344,269	11,239,220	966,252	253,609	38,638	553,816	209,547
2042	272,032	13,057,800	355,114	12,291,709	766,091	264,169	40,215	576,416	221,302
2043	282,913	13,974,455	370,199	13,434,889	539,566	273,891	41,760	598,564	228,365
2044	294,230	14,956,472	372,014	14,670,871	285,601	285,601	43,487	623,318	251,304
2045	305,999	16,022,491	349,331	16,022,490	1	-	22,950	328,949	-

Greater Attleboro Taunton Regional Transit Authority Postemployment Benefits Other Than Pensions Actuarial Valuation as of July 1, 2014

30 years closed, 7.5% discount rate.

TABLE 4.3 - ANNUAL OPEB COST and NET OPEB OBLIGATION

		Interest on					Change in Net	Net OPEB
FYE June		Net OPEB	ARC	Amortization	Annual	Employer	OPEB	Obligation
30	ARC	Obligation	Adjustment	Factor	OPEB Cost	Contributions	Obligation	Balance
					_			600,249
2015	340,209	21,009	(18,555)	32.35	342,663	30,083	312,580	912,829
2016	359,937	31,949	(28,217)	32.35	363,669	28,916	334,753	1,247,582
2017	380,746	43,665	(38,565)	32.35	385,846	43,066	342,780	1,590,362
2018	402,188	55,663	(49,161)	32.35	408,690	57,213	351,477	1,941,839
2019	424,297	67,964	(60,026)	32.35	432,235	78,902	353,333	2,295,172
2020	446,868	80,331	(70,948)	32.35	456,251	83,353	372,898	2,668,070
2021	470,494	93,382	(82,475)	32.35	481,401	94,358	387,043	3,055,113
2022	495,018	106,929	(94,439)	32.35	507,508	116,572	390,936	3,446,049
2023	520,118	120,612	(106,524)	32.35	534,206	119,186	415,020	3,861,069
2024	546,474	135,137	(119,353)	32.35	562,258	148,208	414,050	4,275,119

Notes:

- 1. ARC and Employer Contributions are from 30-Year Forecast of Annual Required Contributions (Table 4.1).
- 2. Interest on Net OPEB Obligation is computed on the prior year Net OPEB Obligation Balance.
- 3. ARC Adjustment is the prior year Net OPEB Obligation Balance amortized over 30 years.
- 4. OPEB Cost is the ARC plus Interest on Net OPEB Obligation plus ARC Adjustment.
- ${\bf 5.} \ \ {\bf Change in \ Net \ OPEB \ Obligation \ is \ the \ difference \ between \ the \ OPEB \ Cost \ and \ Employer \ Contributions.}$
- 6. Net OPEB Obligation is the prior year Net OPEB Obligation Balance plus Change in Net OPEB Obligation.
- 7. Year one Interest on Net OPEB Obligation and ARC Adjustment computed at prior discount rate of 3.5%.
- 8. Subsequent years' Interest on Net OPEB Obligation and ARC Adjustment computed at current discount rate of 3.5%.

SECTION 5 - SENSITIVITY ANALYSIS

Below we illustrate the sensitivity of the Actuarial Accrued Liability and the Annual Required Contribution to a one percentage increase and decrease in the discount rate:

TABLE 5.1 - DISCOUNT RATE ASSUMPTION

	Discount	Assumed	Discount
	Rate -1%	Discount Rate	Rate +1%
Discount Rate	2.5%	3.5%	4.5%
Actuarial Accrued Liability			
Current Active Employees	\$3,513,613	\$2,727,532	\$2,158,987
Current Retirees	553,750	481,759	422,628
Total Actuarial Accrued Liability	\$4,067,363	\$3,209,291	\$2,581,615
Change %	26.74%		-19.56%
Annual Required Contribution			
Normal Cost	\$305,579	\$229,037	\$174,679
Actuarial Accrued Liability	\$4,067,363	\$3,209,291	\$2,581,615
Actuarial Value of Assets	0	0	0
Unfunded Actuarial Accrued Liability	\$4,067,363	\$3,209,291	\$2,581,615
Amortization Payment	108,957	99,667	92,168
Interest	10,363	11,505	12,008
Annual Required Contribution	\$424,899	\$340,209	\$278,855
Change %	24.89%		-18.03%

SECTION 5 - SENSITIVITY ANALYSIS

Below we illustrate the sensitivity of the Actuarial Accrued Liability and the Annual Required Contribution to a one percentage increase and decrease in health care cost trend assumption for each future year:

TABLE 5.2 - HEALTH CARE COST TREND ASSUMPTION

		Assumed	
	<u>Trend -1%</u>	Trend	Trend +1%
Discount Rate	3.5%	3.5%	3.5%
Actuarial Accrued Liability			
Current Active Employees	\$2,122,133	\$2,727,532	\$3,640,603
Current Retirees	423,673	481,759	560,932
Total Actuarial Accrued Liability	\$2,545,806	\$3,209,291	\$4,201,535
Change %	-20.67%		30.92%
Annual Required Contribution			
Normal Cost	\$170,881	\$229,037	\$318,586
Actuarial Accrued Liability	\$2,545,806	\$3,209,291	\$4,201,535
Actuarial Value of Assets	0	0	0
Unfunded Actuarial Accrued Liability	\$2,545,806	\$3,209,291	\$4,201,535
Amortization Payment	79,062	99,667	130,482
Interest	8,748	11,505	15,717
Annual Required Contribution	\$258,691	\$340,209	\$464,785
Change %	-23.96%		36.62%

SECTION 6 - PLAN PROVISIONS

Retirement Eligibility: Group 1 employees hired before April 2, 2012: retire after attaining age 55

with 10 or more years of service or any age with 20 or more years of service

Group 1 employees hired after April 1, 2012: retire after attaining age 60

with 10 or more years of service

Ordinary Disability Eligibility: Any member who is unable to perform his or her duties due to a non-

occupational disability and has ten or more years of creditable service.

Accidental Disability Eligibility: Any member who is unable to perform his or her duties due to a job-related

disability.

Medical Premium Rates: We have utilized the plans offered to active employees for the non-Medicare

plans as there are currently no retirees under age 65 who have elected

coverage. The total monthly costs by plan are shown below:

Non-Medicare Plans - July 1, 2015 <u>Individual</u> **Family** Network Blue New England HMO \$697.88 \$1,857.82 Blue Care Elect PPO \$1,051.76 \$2,517.36

Medicare Plans - January 1, 2015

\$310.63 Medicare Supplemental Plan

Dental Reimbursement: We assumed an annual reimbursement of \$500 per retiree.

Participant Contributions: Retired employees contribute 10% of the total medical premium cost.

Continuation of Coverage to Spouse After Death of Retiree: medical premium rates.

Surviving spouse may continue coverage for lifetime by paying the required

Life Insurance Benefit: None.

PPACA Excise Tax: The Patient Protection and Affordable Care Act (PPACA) applies a 40% excise

> tax, commonly referred to as the "Cadillac Tax", to the cost of plan benefits in excess of statutory thresholds beginning in 2018. The 2018 thresholds are assumed to be \$10,200 for individual and \$27,500 for family coverage and increase by the Consumer Price Index (CPI) in future years. The annual limits are increased by \$1,650 for individual and \$3,450 for family coverage for

retirees not eligible for Medicare benefits.

Valuation Date: July 1, 2014

Discount Rates: 3.50% pay-as-you-go.

7.50% full pre-funding. Previously, 8%.

Amortization Method: Increasing at 4.% per year over 30 years on an open amortization period for

pay-as-you-go.

Increasing at 4.% per year over 30 years on a closed amortization period for

full pre-funding.

Health Care Cost Trend Rates:

Year	Current	Prior
1	8.00%	8.00%
2	7.50%	7.50%
3	7.00%	7.00%
4	6.50%	6.50%
5	6.00%	6.00%
6	5.50%	5.50%
7	5.00%	5.00%
8	4.50%	4.50%
Ultimate	4.50%	4.50%

	Year	Current	Prior
Dental Trend	All	0.00%	Not disclosed

Consumer Price Index (CPI): 3% per year.

Medical Plan Participation: 100% of eligible retirees will elect medical coverage upon retirement.

Dental Plan Participation: 35% of eligible retirees will elect dental coverage upon retirement.

Dependent Status: Male spouses are assumed to be three years older and female spouses are

assumed to be three years younger than the retired employee.

80% of male employees are assumed to retire with a covered spouse and 60% of female employees are assumed to retire with a covered spouse.

For current retirees, the actual census information provided is used.

Medical Per Capita Costs:

Annual per capita costs for the fiscal year beginning July 1, 2014 are as follows:

Age	Male	Female
Under 20	\$3,484	\$4,091
20-24	\$2,746	\$4,355
25-29	\$2,857	\$6,425
30-34	\$3,589	\$8,118
35-39	\$4,502	\$8,362
40-44	\$5,610	\$8,564
45-49	\$7,080	\$9,401
50-54	\$9,331	\$11,059
55-59	\$12,125	\$12,787
60-64	\$15,561	\$15,219
65-69	\$3,646	\$3,551
70-74	\$4,369	\$4,189
75-79	\$5,160	\$4,860
80-84	\$5,931	\$5,574
85-89	\$6,607	\$6,231
90-94	\$7,192	\$6,649
95+	\$7,644	\$6,430

Retiree Contributions:

Annual average per capita participant contributions for the fiscal year beginning July 1, 2014 are as follows:

Plan	Retiree Contribution
Non-Medicare Plans	\$1,043
Medicare Plans	\$359

Excise Tax: For purposes of estimating the excise tax, per capita plan costs are

developed for individual and family coverage for both Medicare and non-Medicare members. These plan costs are compared to the thresholds stipulated in the Patient Protection and Affordable Care Act (PPACA). Beginning in 2018, a 40% excise tax is applied on the excess of the plan

costs over the thresholds, which increase annually by CPI.

Actuarial Cost Method: Projected Unit Credit. The costs of each employee's postemployment

benefits are allocated on a pro rata basis from the employee's date of hire

to the date the employee is fully eligible for benefits.

Employee Data: Employee and retiree data were submitted by the Authority. We made

reasonable adjustments for missing or invalid data.

Post-Retirement Mortality: Post-retirement mortality rates for General employees are based on the RP-

2000 Combined Mortality Table, projected with fully generational mortality

improvement using Scale AA.

Pre-Retirement Mortality: Pre-retirement mortality rates for General employees are based on the RP-

2000 Combined Mortality Table, projected with fully generational mortality

improvement using Scale AA.

Turnover Rates: Turnover rates for General employees are as follows:

General					
Service	Rate				
0	15.00%				
10	5.40%				
20	2.00%				
30	0.00%				

Disability Rates: Disability rates for General employees are as follows:

General					
Age	Rate				
20	0.01%				
30	0.03%				
40	0.10%				
50	0.19%				

55% of the General employee disabilities are job-related.

Retirement Rates:

Retirement rates for General employees are as follows (based on hire date):

	Prior to 4,	/2/2012	After 4/1	L/2012
<u>Age</u>	Male	Female	Male	Female
50-51	1.00%	1.50%	0.00%	0.00%
52	1.00%	2.00%	0.00%	0.00%
53	1.00%	2.50%	0.00%	0.00%
54	2.00%	2.50%	0.00%	0.00%
55	2.00%	5.50%	0.00%	0.00%
56-57	2.50%	6.50%	0.00%	0.00%
58	5.00%	6.50%	0.00%	0.00%
59	6.50%	6.50%	0.00%	0.00%
60	12.00%	5.00%	5.00%	6.50%
61	20.00%	13.00%	6.50%	6.50%
62	30.00%	15.00%	20.00%	15.00%
63	25.00%	12.50%	20.00%	13.00%
64	22.00%	18.00%	30.00%	15.00%
65	40.00%	15.00%	25.00%	12.50%
66	25.00%	20.00%	22.00%	18.00%
67	25.00%	20.00%	40.00%	25.00%
68	30.00%	25.00%	30.00%	20.00%
69	30.00%	20.00%	30.00%	20.00%
70	100.00%	100.00%	100.00%	100.00%

SECTION 8 - PLAN MEMBER INFORMATION

TABLE 8.1 - ACTIVE EMPLOYEES BY AGE and YEARS OF SERVICE AS OF JULY 1, 2014

		Years of Service									
<u>Age</u>	0 to 4	<u>5 to 9</u>	10 to 14	<u>15 to 19</u>	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	<u>Total</u>	<u>Percent</u>
Under 25	0	0	0	0	0	0	0	0	0	0	0%
25 to 29	0	0	0	0	0	0	0	0	0	0	0%
30 to 34	0	1	0	0	0	0	0	0	0	1	5%
35 to 39	2	0	1	1	0	0	0	0	0	4	17%
40 to 44	2	0	0	0	0	0	0	0	0	2	9%
45 to 49	3	1	1	1	0	0	0	0	0	6	26%
50 to 54	2	2	0	1	0	0	1	0	0	6	26%
55 to 59	2	0	0	1	0	0	1	0	0	4	17%
60 to 64	0	0	0	0	0	0	0	0	0	0	0%
65 to 69	0	0	0	0	0	0	0	0	0	0	0%
70 & up	0	0	0	0	0	0	0	0	0	0	0%
Total	11	4	2	4	0	0	2	0	0	23	
Percent	48%	17%	9%	17%	0%	0%	9%	0%	0%		100%
		Average Age:	48.6		Aver	age Service:	8.5				

SECTION 8 - PLAN MEMBER INFORMATION

TABLE 8.2 - RETIRED EMPLOYEES, COVERED SPOUSES and SURVIVORS AS OF JULY 1, 2014

	Weinark Blue Lighting	the case boo	Wedicate ental Plan	
Age	7	⊘ .	87	Total
Under 40	0	0	0	0
40 to 44	0	0	0	0
45 to 49	0	0	0	0
50 to 54	0	0	0	0
55 to 59	0	0	0	0
60 to 64	0	0	0	0
65 to 69	0	0	2	2
70 to 74	0	0	1	1
75 to 79	0	0	0	0
80 to 84	0	0	0	0
85 to 89	0	0	0	0
90+	0	0	0	0
Total	0	0	3	3
Covered				
Spouses	0	0	1	1

SECTION 9 - GASB 45 GLOSSARY OF TERMS

Actuarial Accrued Liability – The portion of the Actuarial Present Value of future benefits which is allocated to all periods prior to a valuation year and therefore is not provided by future Normal Costs.

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 pension 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 Present Value of Future Benefits – The present value of the cost to finance all benefits payable in the future, discounted to reflect the probability of payment and the time value of money.

Actuarial Valuation – the determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets and related Actuarial Present Values for an OPEB plan.

Actuarial Value of Assets – The value of plan assets used in an actuarial valuation. The Actuarial Value of Assets may reflect smoothing techniques intended to dampen year-to-year fluctuations in the market value of assets.

Annual OPEB Cost - The accrual basis annual cost for the OPEB plan sponsored by the employer. In the year of implementation of GASB 45, the Annual OPEB Cost equals the ARC. In subsequent years, if an employer has a Net OPEB Obligation, Annual OPEB Cost equals the ARC plus one year's interest on the Net OPEB Obligation plus an adjustment to the ARC.

Annual Required Contribution (ARC) – Includes the employer's Normal Cost and a provision for amortizing the Unfunded Actuarial Accrued Liability.

Expected Benefit Payments – Those OPEB amounts that are expected to be paid by the employer at various future times under a particular set of Actuarial Assumptions, taking into account such times as the advancement in age and past and future service credits.

Explicit Subsidy – The difference between (a) the blended rates based on combined active and retired member experience and (b) actual cash contributions made by the employer.

Funded Ratio - The Actuarial Value of Assets expressed as a percentage of the Actuarial Accrued Liability.

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

SECTION 9 - GASB 45 GLOSSARY OF TERMS

Implicit Subsidy – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group and (b) the blended rates based on combined active and retired member experience.

Net OPEB Obligation – The cumulative excess since adoption of GASB 45 of Annual OPEB Cost over the employer's contributions to the plan.

Normal Cost – The portion of the Actuarial Present Value of Future Benefits which is allocated to a valuation year.

OPEB - Other Postemployment Benefits including medical, dental, vision, hearing and life insurance benefits.

Plan Assets - Investments segregated and restricted in a trust or similar arrangement under which:

- employer contributions to the trust are irrevocable,
- assets are dedicated to providing plan benefits, and
- assets are legally protected from creditors.

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.

Present Value of Future Benefits – The actuarial present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value of money and the probabilities of payment.

Projected Unit Credit Actuarial Cost Method – A method under which the projected benefits of each individual included in an Actuarial Valuation are allocated by a consistent formula to valuation years. Projected Unit Credit is one of the actuarial cost methods allowed and most often used for developing liabilities under GASB 45.

Substantive Plan - The terms of an OPEB plan as understood by the employer and plan members.

Unfunded Actuarial Accrued Liability – The excess of Actuarial Accrued Liability over the Actuarial Value of Assets.