Nashoba Regional School District

Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of December 31, 2011 in accordance with GASB Statements No. 43 and No. 45

SEGAL

SEGAL

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December 27, 2012

Mr. George P. King
Assistant Superintendent for Finance
Nashoba Regional School District
Central Office
50 Mechanic Street
Bolton, MA 01740

Dear Mr. King:

We are pleased to submit this report on our actuarial valuation of postemployment welfare benefits as of December 31, 2011 under Governmental Accounting Standards Board Statements Number 43 and 45. It establishes the liabilities of the postemployment welfare benefit plan in accordance with GASB Statements Number 43 and 45 for the fiscal year beginning July 1, 2011 and summarizes the actuarial data.

This report is based on information received from the Nashoba Regional School District. The actuarial projections were based on the assumptions and methods described in Exhibit II and on the plan of benefits as summarized in Exhibit III.

We look forward to discussing this with you at your convenience.

Sincerely,

THE SEGAL COMPANY

By: ______________________________
Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary

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Daniel J. Rhodes, ASA, FCA, MAAA
Consulting Actuary

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PURPOSE

This report presents the results of our actuarial valuation of the Nashoba Regional School District (the "Employer") postemployment welfare benefit plan as of December 31, 2011. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants' active working lifetimes. The accounting standard supplements cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

HIGHLIGHTS OF THE VALUATION

During the fiscal year ending June 30, 2012, we project the School District will pay benefits (net of retiree contributions) on behalf of retired employees of about $797,000. This amount is less than the annual "cost" (the "Annual Required Contribution," or ARC) of approximately $3,490,000.

The GASB statements provide the method for selecting the investment return assumption (discount rate). If the benefits are fully funded, the discount rate should be based on the estimated long-term investment yield on the investments expected to be used to finance the payment of benefits. If financing continues to be pay-as-you-go, the discount rate should be based on the expected yield on the assets of the employer. If the benefits are partially funded, a blended discount rate can be used that reflects the proportionate amounts of plan and employer assets expected to be used.

For the purpose of this valuation, we have used 8.0% and 4.50%, respectively, for fully funded and pay-as-you-go. In the prior valuation, the fully funded discount rate was 8.50% and the pay-as-you-go discount rate was 5.0%.

The GASB statements allow the use of one of six funding methods to determine the actuarial liabilities. We have used the projected unit credit cost method.

To determine the amortization payment on the unfunded actuarial accrued liability (UAAL), an amortization period and amortization method must be selected. We have used a 30-year open amortization of the UAAL (the maximum permitted by the GASB statements), with payments increasing at 4.5% per year. The GASB statements allow for either an open or closed amortization period. In open amortization, the period is reset to the initial value every year and the UAAL is reamortized, while under a closed amortization, the remaining period decreases and the UAAL is eventually "paid off."

To be considered a fully funded plan, the "contribution in relation to the ARC" must equal the ARC. For example, if the ARC is $2,236,000, and the employer pays benefits to retirees of $797,000, then an additional contribution of the difference, or approximately $1,439,000 will need to be added to an OPEB trust fund during the fiscal year ending June 30, 2012.

Assets set aside to fund OPEB liabilities must be held in a trust or equivalent arrangement, through which assets are accumulated and benefits are paid as they come due. Employer contributions to the plan are irrevocable, plan assets are dedicated to providing benefits to retirees and their spouses in accordance with the terms of the plan, and plan assets are legally protected from creditors of the employer.

Chapter 68 of the Acts of 2011 permits municipalities, authorities and certain other government entities of the Commonwealth to establish a liability trust fund for funding retiree benefits (other than pension), also known as Other Post-Employment Benefits (OPEB). The legislation also ensures that these entities have access to the state's investment trust, the State Retiree Benefits Trust Fund (SRBTF) for purposes of investment OPEB funds.

GASB guidelines prohibit the offset of OPEB obligations by the future value of Medicare Part D subsidies. Therefore, these calculations do not include an estimate for retiree prescription drug plan federal subsides that the Employer may be eligible to receive for plan years beginning in 2006.

Employer decisions regarding plan design, cost sharing between the Employer and its retirees, actuarial cost method, amortization techniques, and integration with Medicare are just some of the decisions that affect the magnitude of OPEB obligations. We are available to assist you with any investigation of such options you may wish to undertake.

This valuation does not include the potential impact of any future changes due to the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA) of 2010 other than those previously adopted as of the valuation date.

KEY VALUATION RESULTS

- The **unfunded actuarial accrued liability (UAAL)** as of December 31, 2011 is $40,703,000. Going forward, net unfunded plan obligations will be expected to change due to normal plan operations, which consist of continuing accruals for active members, plus interest on the total actuarial accrued liability, less expected benefit payments and contributions. Future valuations will analyze the difference between actual and expected unfunded actuarial accrued liabilities.
  - As of December 31, 2011 the ratio of assets to the AAL (the funded ratio) is 0.00%.
- The **Annual Required Contribution (ARC)** for fiscal year 2012 is $3,490,000. The ARC is expected to remain relatively level as a percentage of payroll, as long as the ARC is fully funded each year. If the ARC is not fully funded, it may be expected to increase as a percentage of payroll over time.

Plan obligations of $40,703,000 as of December 31, 2011 represent a decrease of $34,417,000 from $75,120,000 as shown in the December 31, 2009 valuation.

Plan obligations had been expected to increase $12,988,000 due to normal plan operations, which consist of continuing accruals for active members, plus interest on the total obligation, less expected benefit payments. The decrease was the net effect of the following:

- An **actuarial experience gain** decreased obligations by $7,274,000. This was the net result of gains and losses due to demographic changes as well as retirees enrolling in the new Medex plan.

- **Valuation assumption and plan changes** decreased obligations by $40,131,000. This was the net result of a *decrease* in obligations due to 1) valuation year per capita health costs not increasing as much as projected, 2) eliminating the Medicare Part B premium reimbursement to eligible retirees and 3) the impact of changes to Section 18A of Chapter 32B effective July 1, 2011 requiring all Medicare eligible retirees to enroll in a Medicare plan, partially offset by *increases* in obligations due to 4) a change in the future trend on per capita health care costs based on what is likely to occur in the marketplace, 5) changes in the mortality assumption for healthy and disabled lives, 6) lowering the discount rate from 5.0% to 4.5% and 7) paying the Part B penalty for new retirees enrolling in Medicare. The complete set of assumptions is shown in Exhibit II.

ACCOUNTING REQUIREMENTS

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 -- *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions.* Under these statements, all state and local governmental entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements.

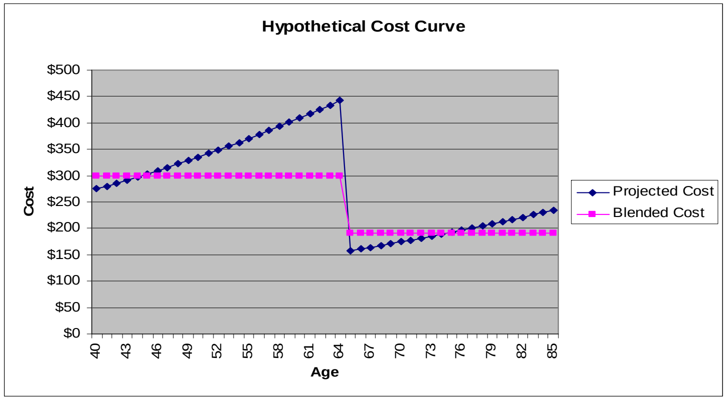
The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. These benefits, referred to as OPEB, are typically financed on a pay-as-you-go basis. The new standard introduces an accrual-basis accounting requirement; thereby recognizing the employer cost of postemployment benefits over an employee's career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the net OPEB obligation (NOO). In addition, required supplementary information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan.

The benefits valued in this report are limited to those described in Exhibit III of Section 4.

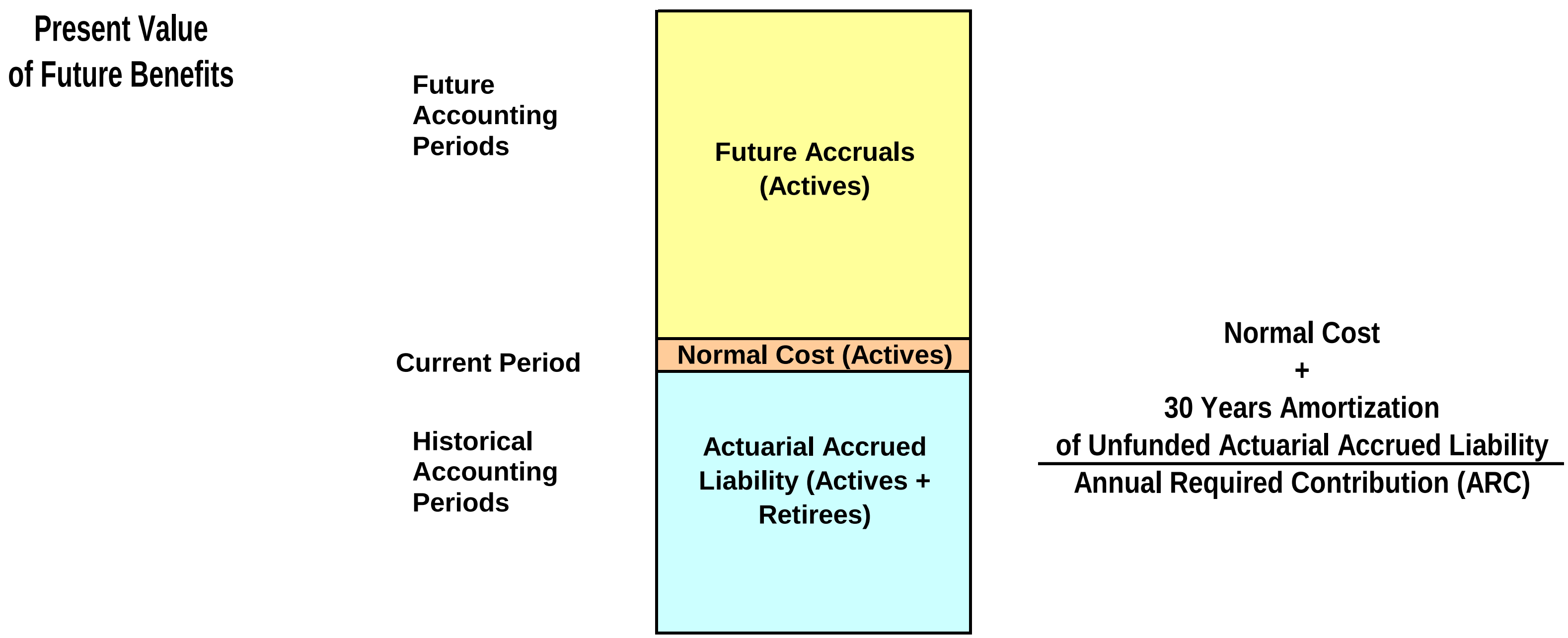
The following graph illustrates why a significant accounting obligation may exist even though the retiree contributes most or all of the blended premium cost of the plan. The average cost for retirees is likely to exceed the average cost for the whole group, leading to an implicit subsidy for these retirees. The accounting standard requires the employer to identify and account for this implicit subsidy as well as any explicit subsidies the employer may provide.



This graph shows how the actuarial present value of the total projected benefits (APB) is broken down and allocated to various accounting periods.

The exact breakdown depends on the actuarial cost method and amortization methods selected by the employer.

GASB 43/45 Measurement



Net OPEB Obligation = $ARC_1 + ARC_2 + ARC_3 + \ldots\ldots$

$- \text{Contribution}_1 - \text{Contribution}_2 - \text{Contribution}_3 - \ldots\ldots$

Actuarial computations under GASB statements are for purposes of fulfilling certain welfare plan accounting requirements. The calculations shown in this report have been made on a basis consistent with our understanding of GASB. Determinations for purposes other than meeting the financial accounting requirements of GASB may differ significantly from the results reported here.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits does not incorporate the potential effect of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The key results for the current year are shown on a funded basis and a pay-as-you-go basis.

SUMMARY OF VALUATION RESULTS
ALL DEPARTMENTS

		Funded (8.0% interest rate)	Pay-as-you-go (4.5% interest rate)
Actuarial Accrued Liability by Participant Category			
1.	Current retirees, beneficiaries and dependents	$10,353,559	$15,205,030
2.	Current active employees	13,201,591	25,497,963
3.	Total as of December 31, 2011: (1) + (2)	$23,555,150	$40,702,993
4.	Actuarial value of assets as of December 31, 2011	0	0
5.	Unfunded actuarial accrued liability (UAAL) as of December 31, 2011: (3) – (4)	$23,555,150	$40,702,993
Annual Required Contribution for Fiscal Year Ending June 30, 2012			
6.	Normal cost as of December 31, 2011	$1,020,433	$2,133,732
7.	30-year amortization (increasing by 4.5% per year) of the UAAL as of December 31, 2011	1,215,930	1,356,766
8.	Total Annual Required Contribution (ARC): (6) + (7)	2,236,363	3,490,498
9.	Projected benefit payments	797,451	797,451

Note: Assumes payment in the middle of the fiscal year.

FUNDING SCHEDULE

30 Years Closed (8.0% discount rate)

Fiscal Year Ended June 30	(1) Projected Benefit Payments	(2) Normal Cost	(3) Amortization of UAAL	(4) Total Funding Requirement (3) + (2)	(5) Additional Funding (4) - (1)	(6) Assets at End of Year	(7) AAL at End of Year	(8) UAAL at End of Year (7) – (6)
2012	$797,451	$1,020,433	$1,215,930	$2,236,363	$1,438,912	$1,495,361	24,710,959	23,215,598
2013	888,977	1,071,455	1,270,647	2,342,102	1,453,125	3,125,122	26,877,472	23,752,350
2014	1,018,757	1,125,028	1,327,826	2,452,854	1,434,097	4,865,489	29,138,110	24,272,621
2015	1,176,467	1,181,279	1,387,578	2,568,857	1,392,390	6,701,742	31,474,160	24,772,418
2016	1,340,285	1,240,343	1,450,019	2,690,362	1,350,077	8,640,923	33,888,230	25,247,307
2017	1,506,765	1,302,360	1,515,270	2,817,630	1,310,865	10,694,488	36,386,864	25,692,376
2018	1,686,162	1,367,478	1,583,457	2,950,935	1,264,773	12,864,438	38,966,627	26,102,189
2019	1,868,586	1,435,852	1,654,713	3,090,565	1,221,979	15,163,511	41,634,247	26,470,736
2020	2,022,225	1,507,645	1,729,175	3,236,820	1,214,595	17,638,836	44,430,220	26,791,384
2021	2,191,055	1,583,027	1,806,988	3,390,015	1,198,960	20,295,939	47,352,756	27,056,817
2022	2,356,354	1,662,178	1,888,302	3,550,480	1,194,126	23,160,586	50,419,568	27,258,982
2023	2,474,172	1,745,287	1,973,276	3,718,563	1,244,391	26,306,642	53,695,654	27,389,012
2024	2,597,880	1,832,551	2,062,073	3,894,624	1,296,744	29,758,789	57,195,953	27,437,164
2025	2,727,774	1,924,179	2,154,866	4,079,045	1,351,271	33,543,774	60,936,509	27,392,735
2026	2,864,163	2,020,388	2,251,835	4,272,223	1,408,060	37,690,575	64,934,553	27,243,978
2027	3,007,371	2,121,407	2,353,168	4,474,575	1,467,204	42,230,584	69,208,596	26,978,012
2028	3,157,740	2,227,477	2,459,061	4,686,538	1,528,798	47,197,804	73,778,526	26,580,722
2029	3,315,627	2,338,851	2,569,719	4,908,570	1,592,943	52,629,063	78,665,713	26,036,650
2030	3,481,408	2,455,794	2,685,356	5,141,150	1,659,742	58,564,243	83,893,121	25,328,878
2031	3,655,479	2,578,584	2,806,197	5,384,781	1,729,302	65,046,526	89,485,429	24,438,903
2032	3,838,252	2,707,513	2,932,476	5,639,989	1,801,737	72,122,668	95,469,165	23,346,497
2033	4,030,165	2,842,889	3,064,437	5,907,326	1,877,161	79,843,284	101,872,845	22,029,561
2034	4,231,673	2,985,033	3,202,337	6,187,370	1,955,697	88,263,167	108,727,126	20,463,959
2035	4,443,257	3,134,285	3,346,442	6,480,727	2,037,470	97,441,621	116,064,972	18,623,351
2036	4,665,420	3,290,999	3,497,032	6,788,031	2,122,611	107,442,833	123,921,830	16,478,997
2037	4,898,691	3,455,549	3,654,398	7,109,947	2,211,256	118,336,264	132,335,819	13,999,555
2038	5,143,625	3,628,326	3,818,846	7,447,172	2,303,547	130,197,081	141,347,940	11,150,859
2039	5,400,807	3,809,742	3,990,694	7,800,436	2,399,629	143,106,615	151,002,292	7,895,677
2040	5,670,847	4,000,229	4,170,275	8,170,504	2,499,657	157,152,864	161,346,318	4,193,454
2041	5,809,160	4,200,240	4,357,937	8,558,177	2,749,017	172,581,955	172,581,955	-

Notes: Assumes payment in the middle of the fiscal year.
Amortization payments calculated to increase 4.5% per year.

PROJECTION OF ARC

30 Years Open (4.5% discount rate)

Fiscal Year Ended June 30	(1) Projected Benefit Payments	(2) Normal Cost	(3) Amortization of UAAL	(4) ARC (3) + (2)	(5) Additional Funding (4) - (1)	(6) Assets at End of Year	(7) AAL at End of Year	(8) UAAL at End of Year (7) – (6)
2012	$797,451	$2,133,732	$1,356,766	$3,490,498	$0	$0	$42,974,749	$42,974,749
2013	888,977	2,225,268	1,464,368	3,689,636	-	-	46,274,639	46,274,639
2014	1,018,757	2,336,532	1,576,812	3,913,344	-	-	49,704,096	49,704,096
2015	1,176,467	2,453,358	1,693,671	4,147,029	-	-	53,246,086	53,246,086
2016	1,340,285	2,576,026	1,814,365	4,390,391	-	-	56,905,399	56,905,399
2017	1,506,765	2,704,827	1,939,056	4,643,883	-	-	60,690,864	60,690,864
2018	1,686,162	2,840,069	2,068,046	4,908,115	-	-	64,601,537	64,601,537
2019	1,868,586	2,982,072	2,201,303	5,183,375	-	-	68,646,870	68,646,870
2020	2,022,225	3,131,176	2,339,148	5,470,324	-	-	72,869,606	72,869,606
2021	2,191,055	3,287,735	2,483,038	5,770,773	-	-	77,269,822	77,269,822
2022	2,356,354	3,452,121	2,632,975	6,085,096	-	-	81,867,115	81,867,115
2023	2,474,172	3,624,727	2,789,629	6,414,356	-	-	86,727,293	86,727,293
2024	2,597,880	3,805,964	2,955,239	6,761,203	-	-	91,864,987	91,864,987
2025	2,727,774	3,996,262	3,130,307	7,126,569	-	-	97,295,627	97,295,627
2026	2,864,163	4,196,075	3,315,356	7,511,431	-	-	103,035,480	103,035,480
2027	3,007,371	4,405,879	3,510,942	7,916,821	-	-	109,101,705	109,101,705
2028	3,157,740	4,626,173	3,717,649	8,343,822	-	-	115,512,390	115,512,390
2029	3,315,627	4,857,481	3,936,094	8,793,575	-	-	122,286,612	122,286,612
2030	3,481,408	5,100,355	4,166,926	9,267,281	-	-	129,444,482	129,444,482
2031	3,655,479	5,355,373	4,410,831	9,766,204	-	-	137,007,205	137,007,205
2032	3,838,252	5,623,142	4,668,532	10,291,674	-	-	144,997,137	144,997,137
2033	4,030,165	5,904,299	4,940,789	10,845,088	-	-	153,437,846	153,437,846
2034	4,231,673	6,199,514	5,228,407	11,427,921	-	-	162,354,179	162,354,179
2035	4,443,257	6,509,490	5,532,232	12,041,722	-	-	171,772,328	171,772,328
2036	4,665,420	6,834,964	5,853,156	12,688,120	-	-	181,719,905	181,719,905
2037	4,898,691	7,176,712	6,192,120	13,368,832	-	-	192,226,013	192,226,013
2038	5,143,625	7,535,548	6,550,117	14,085,665	-	-	203,321,333	203,321,333
2039	5,400,807	7,912,325	6,928,191	14,840,516	-	-	215,038,198	215,038,198
2040	5,670,847	8,307,941	7,327,444	15,635,385	-	-	227,410,693	227,410,693
2041	5,809,160	8,723,339	7,749,038	16,472,377	-	-	240,623,200	240,623,200

Notes: Assumes payment in the middle of the fiscal year.
Amortization payments calculated to increase 4.5% per year.

DEPARTMENT RESULTS

Actuarial Accrued Liability (AAL) and Annual Required Contribution – Pay-As-You-Go (4.5%)

	All Others	Teachers	Total
Actuarial Accrued Liability by Participant Category			
1. Current retirees, beneficiaries and dependents	$3,286,523	$11,918,507	$15,205,030
2. Current active employees	10,035,680	15,462,283	25,497,963
3. Total as of December 31, 2011: (1) + (2)	$13,322,203	$27,380,790	$40,702,993
4. Actuarial value of assets as of December 31, 2011	0	0	0
5. Unfunded actuarial accrued liability (UAAL) as of December 31, 2011: (3) – (4)	$13,322,203	$27,380,790	$40,702,993
Annual Required Contribution for Fiscal Year Ending June 30, 2012			
6. Normal cost as of December 31, 2011	$964,900	$1,168,832	$2,133,732
7. 30-year amortization (increasing by 4.5% per year) of the UAAL as of December 31, 2011	444,073	912,693	1,356,766
8. Total Annual Required Contribution (ARC): (6) + (7)	$1,408,973	$2,081,525	$3,490,498
9. Projected benefit payments	180,926	616,525	797,451

Note: Assumes payment in the middle of the fiscal year.

December 27, 2012

ACTUARIAL CERTIFICATION

This is to certify that The Segal Company has conducted an actuarial valuation of certain benefit obligations of the Nashoba Regional School District other postemployment benefit programs as of December 31, 2011, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Number 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by the School District and on participant and premium data provided by the School District or from vendors employed by the School District.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination or adequacy of funding an ongoing plan.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with GASB Statements Number 43 and 45 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and collectively meet their "General Qualification Standards for Statements of Actuarial Opinion" to render the actuarial opinion contained herein. Further, in our opinion, the assumptions as approved by the School District are reasonably related to the experience and expectations of the postemployment benefit programs.

Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary

Howard Atkinson, Jr., ASA, MAAA, FCA
Vice President and Health Actuary

CHART 1
Required Supplementary Information – Schedule of Employer Contributions

Fiscal Year Ended June 30,	Annual OPEB Costs	Actual Contributions	Percentage Contributed
2009	$4,118,287	$999,497	24.3%
2010	4,161,462	1,159,649	27.9%
2011	6,882,988	1,198,680	17.4%
2012	3,619,466	797,451	22.0%
2013	3,849,434	888,977	23.1%

Notes: 2011 and earlier as shown in employer's financial records.
2013 information assumes there will be no plan changes that need to be reflected.

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

CHART 2
Required Supplementary Information – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a) / (c)]
12/31/2006	$0	$49,752,457	$49,752,457	0.00%	N/A	N/A
12/31/2009	0	75,120,075	75,120,075	0.00%	N/A	N/A
12/31/2011	0	40,702,993	40,702,993	0.00%	- -	- -

** Enter covered payroll for fiscal 2012.*

CHART 3
Required Supplementary Information – Net OPEB Obligation/(Asset) (NOO/NOA)

Fiscal Year Ended June 30,	Annual Required Contribution (a)	Interest on Existing NOO (b)	ARC Adjustment (c)	Annual OPEB Cost (a) + (b) + (c) (d)	Actual Contribution Amount (e)	Net Increase in NOO (d) - (e) (f)	NOO as of Following Date (g)
2009	$4,118,287	$0	$0	$4,118,287	$999,497	$3,118,790	$3,118,790
2010	4,236,507	155,940	(230,985)	4,161,462	1,159,649	3,001,813	6,120,603
2011	6,769,235	423,602	(309,849)	6,882,988	1,198,680	5,684,308	11,804,911
2012	3,490,498	531,221	(402,253)	3,619,466	797,451	2,822,015	14,626,926
2013	3,689,636	658,212	(498,414)	3,849,434	888,977	2,960,457	17,587,383

Notes: 2011 and earlier as shown in employer's financial records
2013 information assumes there will be no plan changes that need to be reflected.

CHART 4
Summary of Required Supplementary Information

Valuation date	December 31, 2011
Actuarial cost method	Projected Unit Credit
Amortization method	Payments increasing at 4.5%
Remaining amortization period	30 years open
Asset valuation method	Market value
Actuarial assumptions:	
Investment rate of return	4.50%, pay-as-you-go scenario (previously, 5.0%)
Inflation rate	4.5%
Medicare cost trend rate	8.0% decreasing by 0.50% for 6 years to an ultimate level of 5.0% per year
Part B premium	6.0%
Dental	5.0%
Plan membership:	
Current retirees, beneficiaries, and dependents	139
Current active participants	357
Total	496

This exhibit summarizes the participant data used for the current and prior valuations.

EXHIBIT I
Summary of Participant Data

	2012	2010
Active employees covered for medical benefits		
Number of employees		
Male	86	89
Female	271	268
Total	357	357
Average age	46.4	46.4
Average service	10.5	9.9
Retired employees, spouses and beneficiaries covered for medical benefits		
Number of individuals	139	146
Average age	67.0	67.0
Retired employees with life insurance coverage		
Number of individuals	72	75
Average age	66.5	67.9

EXHIBIT II
Actuarial Assumptions and Actuarial Cost Method

Data:	Detailed census data, premium rates, and summary plan descriptions for postemployment welfare benefits were provided by the School District.
Actuarial Cost Method:	Projected Unit Credit
Per Capita Cost Development:	
Medical and Drug, Dental	Per capita claims costs were based on the insured premium rates effective September 1, 2012. For non-Medicare medical plans, premiums were combined by taking a weighted average based on the number of participants in each plan, and were then trended to the midpoint of the valuation year at assumed trend rates. Actuarial factors were then applied to the premium to estimate individual retiree and spouse costs by age and by gender.
Measurement Date:	December 31, 2011
Discount Rate:	4.50% pay-as-you-go, 8.0% funded (previously, 5.0% and 8.50%, respectively)
Mortality Rates:	
Pre-Retirement (Non-Teachers)	RP-2000 Healthy Employee Mortality Table projected 12 years with Scale AA (previously, RP-2000 Healthy Employee Mortality Table)
Healthy (Non-Teachers)	RP-2000 Healthy Annuitant Mortality Table projected 12 years using Scale AA (previously, RP-2000 Healthy Annuitant Mortality Table)
Disabled (Non-Teachers)	RP-2000 Healthy Annuitant Mortality Table set forward 2 years projected 12 years using Scale AA (previously, RP-2000 Healthy Annuitant Mortality Table set forward 2 years)
Pre-Retirement (Teachers)	RP-2000 Healthy Employee Mortality Table projected 10 years with Scale AA
Healthy (Teachers)	RP-2000 Healthy Annuitant Mortality Table projected 10 years with Scale AA

Disabled (Teachers)	RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males Accrued liability and service cost were increased by 1.25% for Teachers to be consistent with the assumptions in the January 1, 2012 Massachusetts Teachers' Retirement System Actuarial Valuation Report. These mortality tables were determined to contain provision appropriate to reasonably reflect future mortality improvement.

Termination Rates before Retirement:

Groups 1 and 2 (excluding Teachers) - Rate per year (%)

	Mortality				
	Current		Previously		Disability
Age	Male	Female	Male	Female	
20	0.03	0.02	0.03	0.02	0.02
25	0.03	0.02	0.04	0.02	0.02
30	0.04	0.02	0.04	0.03	0.03
35	0.07	0.04	0.08	0.05	0.06
40	0.10	0.06	0.11	0.07	0.10
45	0.13	0.09	0.15	0.11	0.15
50	0.17	0.14	0.21	0.17	0.19
55	0.24	0.23	0.30	0.26	0.24
60	0.40	0.37	0.49	0.39	0.28

Note: 55% of the rates shown represent accidental disability and death.

Teachers - Rate per year (%)

	Mortality		Disability
Age	**Male**	**Female**	
20	0.03	0.02	0.00
25	0.03	0.02	0.01
30	0.04	0.02	0.01
35	0.07	0,04	0.01
40	0.10	0.06	0.01
45	0.13	0.10	0.03
50	0.18	0.14	0.05
55	0.25	0.23	0.08
60	0.42	0.37	0.10

Notes: 35% of the disability rates shown rates represent accidental disability.
55% of the death rates shown represent accidental death.

Withdrawal Rates:

Years of Service	Rate per year (%) Groups 1 and 2 (excluding Teachers)
0	15.0
1	12.0
2	10.0
3	9.0
4	8.0
5	7.6
6	7.5
7	6.7
8	6.3
9	5.9
10	5.4
11	5.0
12	4.6
13	4.1
14	3.7
15	3.3
16 - 20	2.0
21 – 29	1.0
30+	0.0

Withdrawal Rates:

	Teachers - Rate per year (%)					
	0 - 4 Years of Service		5 - 9 Years of Service		10+ Years of Service	
Age	Male	Female	Male	Female	Male	Female
20	12.0	10.0	4.5	9.0	1.0	5.0
30	11.4	12.0	4.5	9.0	1.0	5.0
40	9.7	11.0	5.4	6.5	1.7	2.9
50	10.0	8.2	4.8	4.2	2.2	2.1

Retirement Rates:

Age	Rate per year (%) Groups 1 and 2 (excluding Teachers) Male	Female
50 – 51	1.0	1.5
52	1.0	2.0
53	1.0	2.5
54	2.0	2.5
55	2.0	5.5
56 – 57	2.5	6.5
58	5.0	6.5
59	6.5	6.5
60	12.0	5.0
61	20.0	13.0
62	30.0	15.0
63	25.0	12.5
64	22.0	18.0
65	40.0	15.0
66 - 67	25.0	20.0
68	30.0	25.0
69	30.0	20.0
70	100.0	100.0

Teachers - Rate per year (%)

	Years of Service					
	Less than 20		20 – 29		30 or more	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
50 – 53	0.0	0.0	1.0	1.5	2.0	2.0
54	0.0	0.0	1.0	1.5	2.0	2.0
55	3.0	2.0	3.0	3.0	6.0	6.0
56	8.0	2.0	5.0	3.0	20.0	15.0
57	15.0	8.0	8.0	7.0	35.0	30.0
58	15.0	10.0	10.0	7.0	50.0	35.0
59	20.0	15.0	20.0	11.0	50.0	35.0
60	15.0	20.0	20.0	16.0	50.0	35.0
61	30.0	20.0	25.0	20.0	50.0	35.0
62	20.0	25.0	30.0	30.0	40.0	40.0
63	30.0	24.0	30.0	30.0	40.0	35.0
64	40.0	20.0	30.0	30.0	40.0	35.0
65	40.0	30.0	40.0	30.0	50.0	35.0
66	40.0	30.0	30.0	30.0	50.0	35.0
67	40.0	30.0	30.0	30.0	50.0	30.0
68	40.0	30.0	30.0	30.0	50.0	30.0
69	40.0	30.0	30.0	30.0	50.0	30.0
70	100.0	100.0	100.0	100.0	100.0	100.0

Dependents: Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be three years older than their wives. For future retirees who elect to continue their health coverage at retirement, 70% were assumed to have an eligible spouse who also opts for health coverage at that time.

Per Capita Health Costs: Calendar 2012 medical and prescription drug claims costs are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

	Non-Medicare Plans				Medicare Plans			
	Retiree		Spouse		Retiree		Spouse	
Age	Male	Female	Male	Female	Male	Female	Male	Female
45	$6,737	$8,451	$4,179	$6,308	N/A	N/A	N/A	N/A
50	7,996	9,107	5,585	7,313	N/A	N/A	N/A	N/A
55	9,496	9,804	7,473	8,464	N/A	N/A	N/A	N/A
60	11,277	10,567	10,005	9,817	N/A	N/A	N/A	N/A
65	13,393	11,384	13,393	11,384	$5,533	$4,703	$5,533	$4,703
70	15,522	12,268	15,522	12,268	6,413	5,068	6,413	5,068
75	16,728	13,205	16,728	13,205	6,911	5,456	6,911	5,456
80	18,014	14,237	18,014	14,237	7,442	5,882	7,442	5,882

Annual Dental Cost: $630

Health Care Cost Trend Rates: Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are "net" and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that year's cost to yield the next year's projected cost.

Year Ending December 31	Non-Medicare Plans	Dental	Part B
2012	8.0%	5%	6%
2013	7.5%	5%	6%
2014	7.0%	5%	6%
2015	6.5%	5%	6%
2016	6.0%	5%	6%
2017	5.5%	5%	6%
2018 & later	5.0%	5%	6%

Retiree Contribution Increase Rate:	Retiree contributions are expected to increase with medical trend.
Participation and Coverage Election:	100% of active employees with coverage are assumed to elect retiree coverage.
	100% of retirees over age 65 are assumed to remain with their current medical plan for life.
	For future retirees and current retirees under age 65, 80% are assumed to enroll in the Medicare Supplement plan upon reaching age 65 and 20% are assumed to remain enrolled in a non-Medicare plan. (Previously, 30% and 70%, respectively)
	For future retirees hired after 1986, 100% are assumed to enroll in the Medicare Supplement plan upon reaching age 65. (Previously, 30% were assumed to enroll in the Medicare Supplement plan upon reaching age 65 and 70% were assumed to remain enrolled in a non-Medicare plan.)
Plan Design:	Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.
Administrative Expenses:	Administrative expenses are assumed to be included in the fully insured premium rates.
Annual Maximum Benefits:	No increase in the annual maximum benefit levels was assumed.
Lifetime Maximum Benefits:	No information was available regarding accumulations toward lifetime maximum benefits and no such accumulations were assumed.
Missing Participant Data:	A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known.
Health Care Reform Assumption:	This valuation does not include the potential impact of any future changes due to the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA) of 2010 other than those previously adopted as of the valuation date.

Assumption Changes since Prior Valuation:

The per capita health costs were updated to reflect current experience.

The medical/drug trends were updated to better reflect current experience and future expectations.

Demographic assumptions were revised to match the assumptions used in the January 1, 2012 Worcester Regional Retirement System valuation dated September 17, 2012.

Accrued liability and service cost were increased by 1.25% for Teachers to be consistent with the assumption in the January 1, 2012 Massachusetts Teachers' Retirement System Actuarial Valuation Report.

The enrollment for future retirees hired after 1986 was revised due to the change to Section 18A of Chapter 32B effective July 1, 2011 requiring all Medicare eligible retirees to enroll in a Medicare plan.

The discount rate was lowered from 5.0% to 4.50%.

EXHIBIT III
Summary of Plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Eligibility:	Retired and receiving a pension from the Worcester Regional Retirement System or Massachusetts State Teachers Retirement System. **Group 1 and Group 2 (including Teachers):** ➤ Retirees with at least 10 years of creditable service are eligible at age 55; ➤ Retirees with at least 20 years of creditable service are eligible at any age. **Disability:** Accidental (job-related) Disability has no age or service requirement. Ordinary (non-job related) Disability has no age requirement but requires 10 years of creditable service. **Pre-Retirement Death:** Surviving spouses of members who die in active service on Accidental (job-related) Death are eligible at any age. Surviving spouses of members who die in active service on Ordinary (non-job related) Death are eligible after two years of service. **Post-Retirement Death:** Surviving spouse is eligible.
Benefit Types:	Medical and prescription drug benefits are provided to all eligible retirees through a variety of plans offered by Blue Cross Blue Shield of Massachusetts. Dental benefits are provided through Delta Dental. The School District also provides $5,000 in life insurance and reimburses the Medicare Part B penalty for 32 retirees and spouses.
Duration of Coverage:	Lifetime.
Dependent Benefits:	Medical and Prescription Drugs.
Dependent Coverage:	Benefits are payable to a spouse for their lifetime, regardless of when the retirees dies.
MGL Chapter 32B, Section 18A:	Effective July 1, 2011.

Retiree Contributions: Premium rates and retiree contributions as of September 1, 2012 are summarized below:

	Subscribers						
	Active	**Retiree**	**Total**	***Retirees 65 and over****	**Monthly Premium (eff. 9/1/2012)**	**School District Cost**	**Retiree cost**
Non-Medicare Plans							
HMO Blue							
Individual	78	17	95	*5*	$593.31	$296.66	$296.66
Family	217	10	227	*0*	$1,569.13	$784.57	$784.57
Blue Choice							
Individual	13	8	21	*3*	$725.11	$362.56	$362.56
Family	31	6	37	*0*	$1,902.08	$951.04	$951.04
Blue Care Elect PPO							
Individual	7	8	15	*2*	$760.86	$380.43	$380.43
Family	11	2	13	*1*	$1,995.93	$997.97	$997.97
Non-Medicare Total	357	51	408	*11*			

	Subscribers					
	Active	**Retiree**	**Total**	**Monthly Premium (eff. 9/1/2012)**	**School District Cost**	**Retiree cost**
Medicare Supplement Plans						
Medex	N/A	41	41	$502.71	$251.36	$251.36
Medicare Total		41	41			
Retiree Total**		92				

* 11 of 52 over-65 retirees are in a non-Medicare plan

** In addition, there are 47 spouses of retirees covered under an individual or family policy.

Retiree Life:	$5,000
Plan Changes Since the Prior Valuation:	The Medicare Part B premium reimbursement was eliminated for eligible retirees.

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