

**TOWN OF AMESBURY
CONTRIBUTORY RETIREMENT SYSTEM**

Actuarial Valuation Report

January 1, 2006

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Report Summary:

<u>Highlights</u>	<u>January 1, 2004</u>	<u>January 1, 2006</u>
<u>Contributions</u>		
Funding Schedule FY 2007	\$2,103,039	\$2,103,039
Funding Schedule FY 2008	2,193,886	2,615,125
<u>Funded Ratios</u>		
GAS No. 25	58.5%	56.3%
<u>Participants</u>		
Actives	307	314
Retirees and Beneficiaries	214	212
Vested	0	0
Inactives	95	80
Disabled	<u>16</u>	<u>17</u>
Total	632	623
<u>Payroll</u>		
Payroll of Active Members	\$10,599,575	\$11,652,440
Average Payroll	34,526	37,110
<u>Normal Cost</u>		
Employer	365,553	515,760
Employee	873,247	950,423
Administrative Expenses	<u>116,395</u>	<u>125,000</u>
Total	1,355,195	1,591,183
<u>Actuarial Accrued Liabilities</u>		
Actives	19,408,792	25,668,858
Retirees, Beneficiaries, Disabilities and Inactives	<u>27,701,342</u>	<u>30,965,549</u>
Total	47,405,492	56,634,407
<u>Actuarial Value of Assets</u>	<u>27,735,259</u>	<u>31,892,926</u>
<u>Unfunded Actuarial Accrued Liabilities</u>	\$19,670,233	\$24,741,481

Introduction

This report presents the findings of an actuarial valuation as of January 1, 2006, of Amesbury Contributory Retirement System.

The actuarial valuation is based on:

- Provisions Chapter 32 of the Massachusetts General Laws, "M.G.L", as of January 1, 2006.
- Employee data provided by the Retirement Board
- Asset information reported to the Public Employee Retirement Administration Commission by the Town of Amesbury Contributory Retirement System
- Actuarial assumptions approved by the Retirement Board

The valuation and appropriation forecast are prepared in accordance with Chapter 32 of the M.G.L. as of January 1, 2006.

The valuation and forecast do not account for:

- Any subsequent changes in the law
- Chapter 32 of the M.G.L., Section 3(8)(c) transfers between systems
- State-mandated benefits
- Cost-of-living increases granted to retired members between 1982 and 1997. The cost of these benefits has been assumed by the State under Proposition Two and One-Half.

Actuarial Experience

In performing the actuarial valuation, various assumptions are made regarding such factors as mortality, retirement, disability, and withdrawal rates as well as both payroll, salary increases, and investment returns. A comparison of the current valuation and the prior valuation is made to determine how closely actual experience corresponded to anticipated occurrences. This analysis of the system provides insight into the overall quality of the actuarial assumptions and helps explain any change in the annual appropriation.

During the last two years, the total unfunded actuarial accrued liability increased by 25.8% to \$24,741,481. The increase is the result of net unfavorable actuarial experience during the preceding years. The market value of assets had returns of 9.89% and 6.73% for 2004 and 2005, respectively. Due to an investment return less than the 8.25% assumption, the result is a loss of \$3,325. The main components of the liability increase were due to pay increases for Group 4 greater than expected, significant credited service earned by Group 4 new hires, and purchased service for returning Group 4 actives.

Actuarial Costs and Liabilities:

Normal Costs

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

Table I

	<u>January 1, 2004</u>	<u>January 1, 2006</u>
Superannuation	\$735,722	\$993,791
Termination	226,278	138,152
Death	93,941	104,780
Disability	182,859	229,460
Administrative Expenses	<u>116,395</u>	<u>125,000</u>
Total Normal Cost	1,355,195	1,591,183
% of Pay	12.8%	13.7%
Employee Contributions	873,247	950,423
% of Pay	8.2%	8.2%
Employer Normal Cost	\$481,948	\$640,760
% of Pay	4.5%	5.5%

Present Value of Actuarial Accrued Liabilities

The actuarial accrued liabilities (AAL) represents today's value of all benefits earned by the actives and inactives. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

Table II

	<u>January 1, 2004</u>	<u>January 1, 2006</u>
Actives		
Superannuations	\$17,494,838	\$22,261,679
Termination	(711,660)	590,168
Death	831,036	827,089
Disability	1,794,578	1,989,922
Retirees and Inactives		
Retirees and Beneficiaries	23,578,278	26,461,416
Vested	1,100,210	0
Terminated (Refund)	295,358	683,648
Disabled	<u>3,022,854</u>	<u>3,820,485</u>
Total	\$47,405,492	\$56,634,407

Present Value of Future Benefits

The present value of future benefits represents today's value of all benefits earned by the inactive participants as well as all benefits earned and expected to be earned in the coming years by the active participants. The difference between the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

Table III

	<u>January 1, 2004</u>	<u>January 1, 2006</u>
Actives		
Superannuation	N/A	\$31,753,421
Termination	N/A	1,137,623
Death	N/A	1,780,203
Disability	N/A	4,403,095
Retirees and Inactives		
Retirees and Beneficiaries	23,578,278	26,461,416
Vested	1,100,210	0
Terminated (Refund)	295,358	683,648
Disabled	<u>3,022,854</u>	<u>3,820,485</u>
Total	\$27,996,700	\$70,039,891

Funded Status and Appropriations:

Market and Actuarial Value of Plan Assets

The trust fund composition on a market value basis is shown in Table IV.

Table IV

	<u>January 1, 2004</u>	<u>January 1, 2006</u>
Cash equivalents	\$1,280,039	\$988,256
Short term investments	0	0
Fixed income securities	8,109,410	7,533,188
Equities	14,201,184	16,338,450
International	2,573,689	3,679,216
Real Estate	1,506,224	3,358,281
Venture Capital	0	0
Other	0	17,435
Accounts receivable	80,575	4,590
Accounts payable	(15,861)	(26,489)
Accrued income	<u>0</u>	<u>0</u>
Total Market Value	\$27,735,259	\$31,892,926
Total Actuarial Value	\$27,735,259	\$31,892,926

Unfunded Actuarial Accrued Liabilities

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table V.

Table V

	<u>January 1, 2004</u>	<u>January 1, 2006</u>
Actuarial Accrued Liability	\$47,405,492	\$56,634,407
Actuarial Assets	<u>27,735,259</u>	<u>31,892,926</u>
Unfunded Actuarial Accrued Liability	\$19,670,233	\$24,741,481
Funded Status	58.5%	56.3%

Appropriations

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the requirements set forth in Section 22D of Chapter 32 of the Massachusetts General Laws. These amounts were calculated to comply with the June 30, 2028, full funding mandate for all accrued liabilities. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the prior unfunded actuarial accrued liability by June 30, 2026
\$ 17,322,002 over 20 years with 4.5% increasing payments
- Increasing amortization of the 2002 Early Retirement Incentive unfunded liability by June 30, 2020
\$ 564,577 over 14 years with 4.36% increasing payments
- Increasing amortization of the 2003 Early Retirement Incentive unfunded liability by June 30, 2025
\$ 2,253,767 over 19 years with 4.5% increasing payments
- Increasing amortization of the current (gains)/losses by June 30, 2026
\$ 4,601,134 over 20 years with 4.5% increasing payments
- Interest adjustment for payments made monthly from July to December

The pension appropriation is shown in Table VI.

Table VI

	<u>January 1, 2004</u>	<u>January 1, 2006</u>
Normal cost	\$530,004	\$640,760
Amortization payment of the prior accrued liability	1,273,190	1,186,016
Amortization payment of 2002 ERI liability	51,288	50,605
Amortization payment of 2003 ERI liability	161,858	159,916
Amortization payment of current (gains)/losses	<u>0</u>	<u>315,034</u>
Total cost	\$2,016,340	\$2,352,331
% of Pay	19.0%	20.2%
Fiscal 2007 cost	\$2,103,039	\$2,103,039
Fiscal 2008 cost	\$2,193,886	\$2,615,125

Appropriation Forecast

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 4.5% per year. The employee contribution rate is expected to increase to 10.5% by 2028 as members contributing base percentages 5%, 7%, and 8% are replaced by new members, whose base contribution is 9%. Payments are assumed to be made at the beginning of the year.

The employer total cost is expected to increase during the next 20 years until the unfunded liabilities are completely paid off, at which time only the normal cost will remain. The total cost represents 18.0% of payroll, increasing to 21.5% for FYE 2008, decreasing to 17.4% by the time the unfunded liabilities are fully paid off, leaving only a normal cost of 3.5% thereafter. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

Appropriation Forecast

<u>Fiscal Year Ending</u>	<u>Payroll*</u>	<u>Employee Contribution</u>	<u>Employer Normal Cost with Interest</u>	<u>Amortization Payments with Interest</u>	<u>Employer Total Cost with Interest</u>	<u>Employer Total Cost % of Payroll</u>	<u>Funded Ratio %**</u>
2007	\$11,652,440	\$950,423	\$677,726	\$1,425,313	\$2,103,039	18.0	56.3
2008	\$12,176,800	\$1,006,781	\$693,851	\$1,921,274	\$2,615,125	21.5	57.9
2009	\$12,724,756	\$1,066,287	\$710,054	\$2,007,653	\$2,717,707	21.4	59.7
2010	\$13,297,370	\$1,129,110	\$726,311	\$2,097,916	\$2,824,227	21.2	61.5
2011	\$13,895,751	\$1,195,427	\$742,593	\$2,192,237	\$2,934,830	21.1	63.5
2012	\$14,521,060	\$1,265,426	\$758,869	\$2,290,799	\$3,049,668	21.0	65.5
2013	\$15,174,508	\$1,339,305	\$775,107	\$2,393,792	\$3,168,899	20.9	67.5
2014	\$15,857,361	\$1,417,271	\$791,269	\$2,501,416	\$3,292,685	20.8	69.6
2015	\$16,570,942	\$1,499,541	\$807,316	\$2,613,879	\$3,421,195	20.6	71.7
2016	\$17,316,634	\$1,586,345	\$823,205	\$2,731,398	\$3,554,603	20.5	73.9
2017	\$18,095,883	\$1,677,925	\$838,890	\$2,854,201	\$3,693,091	20.4	76.1
2018	\$18,910,198	\$1,774,536	\$854,319	\$2,982,525	\$3,836,844	20.3	78.3
2019	\$19,761,157	\$1,876,443	\$869,438	\$3,116,619	\$3,986,057	20.2	80.5
2020	\$20,650,409	\$1,983,928	\$884,187	\$3,256,742	\$4,140,929	20.1	82.8
2021	\$21,579,677	\$2,097,288	\$898,504	\$3,305,884	\$4,204,388	19.5	85.2
2022	\$22,550,763	\$2,216,832	\$912,318	\$3,454,649	\$4,366,967	19.4	87.5
2023	\$23,565,547	\$2,342,888	\$925,556	\$3,610,108	\$4,535,664	19.2	89.9
2024	\$24,625,996	\$2,475,801	\$938,139	\$3,772,563	\$4,710,702	19.1	92.4
2025	\$25,734,166	\$2,615,931	\$949,979	\$3,942,328	\$4,892,307	19.0	94.9
2026	\$26,892,204	\$2,763,659	\$960,986	\$3,729,377	\$4,690,363	17.4	97.6
2027	\$28,102,353	\$2,919,385	\$971,059	\$0	\$971,059	3.5	100.0
2028	\$29,366,959	\$3,083,531	\$980,093	\$0	\$980,093	3.3	100.0
2029	\$30,688,472	\$3,222,290	\$1,024,197	\$0	\$1,024,197	3.3	100.0
2030	\$32,069,453	\$3,367,293	\$1,070,286	\$0	\$1,070,286	3.3	100.0
2031	\$33,512,579	\$3,518,821	\$1,118,449	\$0	\$1,118,449	3.3	100.0
2032	\$35,020,645	\$3,677,168	\$1,168,779	\$0	\$1,168,779	3.3	100.0
2033	\$36,596,574	\$3,842,640	\$1,221,374	\$0	\$1,221,374	3.3	100.0
2034	\$38,243,420	\$4,015,559	\$1,276,336	\$0	\$1,276,336	3.3	100.0
2035	\$39,964,373	\$4,196,259	\$1,333,771	\$0	\$1,333,771	3.3	100.0
2036	\$41,762,770	\$4,385,091	\$1,393,790	\$0	\$1,393,790	3.3	100.0
2037	\$43,642,095	\$4,582,420	\$1,456,511	\$0	\$1,456,511	3.3	100.0
2038	\$45,605,989	\$4,788,629	\$1,522,054	\$0	\$1,522,054	3.3	100.0

* Calendar basis

** As of the Beginning of the Fiscal year

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GASB Statements No. 25 and No. 27

Effective for periods beginning after June 15, 1997, the Governmental Accounting Standards Board (GASB) requires the disclosure of pension related liabilities for public employer financial statements in accordance with Statements 25 and 27. These statements, which replace GASB Statement No. 5, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

Footnote disclosures required by GASB Statement No. 25 and 27 include a description of the plan, a summary of significant accounting policies, and information about contributions, legally required reserves, and investment concentrations. As a result of the oversight of the Public Employees Retirement Administration Commission (PERAC) and the conversion of unpaid contributions to pension related debt, the Net Pension Obligation (NPO) as required by Statement No. 27 will effectively always be equal to \$0. The required disclosure information is shown in Table VII.

Table VII

	<u>January 1, 2004</u>	<u>January 1, 2006</u>
(1) Actuarial Accrued Liability	\$47,405,492	\$56,634,407
(2) Actuarial Value of Assets	<u>27,735,259</u>	<u>31,892,926</u>
(3) Unfunded Actuarial Accrued Liability	19,670,233	24,741,481
(4) Funded Ratio (2)/(1)	58.5%	56.3%
(5) Covered Payroll	\$10,599,575	\$11,652,440
(6) UAAL as a percentage of payroll: (3)/(5)	185.6%	212.3%
(7) Annual Required Contribution (ARC)	\$2,016,340	\$2,103,039
(8) Net Pension Obligation	\$0	\$0

PERAC Annual Statement
APPENDIX PAGE 3
ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by Buck Consultants as of January 1, 2006.

The normal cost for employees on that date was:	\$950,423	8.2% of pay
The normal cost for the employer was:	515,760	4.4% of pay
The actuarial liability for active members was:		\$25,668,858
The actuarial liability for retired members was:		30,965,549
Total actuarial accrued liability:		56,634,407
System assets as of that date:		31,892,926
Unfunded actuarial accrued liability:		\$24,741,481

The ratio of system's assets to total actuarial liability was 56.3%

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	8.25%
Rate of Salary Increase:	5.0%

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a percent of Covered Payroll (b-a)/c
01/01/06	\$31,892,926	\$56,634,407	\$24,741,481	56.3%	\$11,652,440	212.3%
01/01/04	27,735,259	47,405,492	19,670,233	59.0%	10,572,920	186.0%
01/01/03	23,420,773	43,172,723	19,751,950	54.0%	10,873,793	182.0%
01/01/02	25,271,096	40,814,053	15,542,957	62.0%	10,380,709	150.0%
01/01/01	26,423,203	33,559,596	7,136,393	79.0%	10,111,418	71.0%
01/01/00	26,456,262	32,666,646	6,210,385	81.0%	9,584,283	65.0%
01/01/99	22,632,257	31,623,381	8,991,124	72.0%	9,084,628	99.0%

Attach Copy of Current Approved Funding Schedule

EXHIBITS

Age/Service Distribution with Salary as of January 1, 2006

Attained Age	Average Salary	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
	<5									
< 20	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
20-24	4	0	0	0	0	0	0	0	0	4
	19,249	0	0	0	0	0	0	0	0	19,249
25-29	15	2	0	0	0	0	0	0	0	17
	25,617	5,911	0	0	0	0	0	0	0	23,299
30-34	10	13	0	0	0	0	0	0	0	23
	32,334	46,875	0	0	0	0	0	0	0	40,553
35-39	9	16	12	3	0	0	0	0	0	40
	45,617	40,561	47,713	46,634	0	0	0	0	0	44,300
40-44	15	13	2	10	5	1	0	0	0	46
	15,286	36,110	40,984	46,648	55,525	52,679	0	0	0	34,293
45-49	15	17	11	10	5	3	2	0	0	63
	27,657	25,804	33,233	35,681	62,827	55,890	53,664	0	0	34,365
50-54	9	13	12	11	6	7	6	0	0	64
	32,407	26,753	35,903	41,158	51,931	69,355	64,569	0	0	42,305
55-59	3	10	10	6	4	5	2	1	0	41
	15,174	33,331	32,283	37,923	36,046	76,554	42,025	39,189	0	38,522
60-64	3	3	3	0	2	0	1	0	0	12
	15,596	26,827	45,492	0	31,850	0	46,504	0	0	31,162
65-69	1	1	0	0	0	0	0	0	0	2
	10,653	33,531	0	0	0	0	0	0	0	22,092
70+	0	0	0	1	1	0	0	0	0	2
	0	0	0	14,387	12,744	0	0	0	0	13,566
Total Employees	84	88	50	41	23	16	11	1	-	314
Average Salary	26,594	33,788	38,205	40,435	48,868	68,038	56,845	39,189	-	37,110

Retiree Distribution as of January 1, 2006

Attained Age	Number of Employees			Total Payments		
	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	0	0	0	0	0	0
45-49	0	2	2	0	5,099	5,099
50-54	3	3	6	102,101	27,959	130,060
55-59	15	11	26	606,727	85,825	692,552
60-64	9	16	25	240,143	171,883	412,026
65-69	11	26	37	184,843	347,092	531,935
70-74	3	16	19	68,982	195,663	264,645
75-79	8	29	37	130,697	261,646	392,343
80-84	8	25	33	65,925	197,215	263,141
85-89	10	9	19	106,084	69,644	175,728
90-94	1	4	5	8,212	37,429	45,641
95-99	2	1	3	11,022	3,183	14,205
Total	70	142	212	1,524,735	1,402,639	2,927,375
Average (Age/Payment)	71.1	72.9	72.3	21,782	9,878	13,808
Frequency Percent	33	67	100	52.1	47.9	100

Disabled Retiree Distribution as of January 1, 2006

Attained Age	Number of Employees			Total Payments		
	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	0	0	0	0	0	0
45-49	0	0	0	0	0	0
50-54	3	1	4	92,154	5,493	97,647
55-59	3	0	3	102,980	0	102,980
60-64	3	0	3	58,784	0	58,784
65-69	2	0	2	55,512	0	55,512
70-74	1	1	2	22,812	5,338	28,150
75-79	0	0	0	0	0	0
80-84	2	0	2	42,465	0	42,465
85-89	0	0	0	0	0	0
90-94	0	1	1	0	18,934	18,934
95-99	0	0	0	0	0	0
Total	14	3	17	374,707	29,765	404,472
Average (Age/Payment)	63.2	72.2	64.8	26,765	9,922	23,792
Frequency Percent	82.4	17.6	100	92.6	7.4	100

EXHIBIT 4 - CASHFLOW FORECAST:

The following is a 30 year forecast of benefit payments net of state reimbursable COLA payments, Contribution Income and Investment Returns.

Plan Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2006	\$3,473,192	\$950,423	\$2,103,039	\$2,492,193	\$2,072,463
2007	\$3,536,978	1,006,781	2,615,125	\$2,693,202	2,778,130
2008	\$3,611,088	1,066,287	2,717,707	\$2,917,883	3,090,789
2009	\$3,715,383	1,129,110	2,824,227	\$3,167,106	3,405,060
2010	\$3,849,885	1,195,427	2,934,830	\$3,441,004	3,721,376
2011	\$4,007,769	1,265,426	3,049,668	\$3,740,021	4,047,346
2012	\$4,202,776	1,339,305	3,168,899	\$4,064,400	4,369,828
2013	\$4,414,902	1,417,271	3,292,685	\$4,414,661	4,709,715
2014	\$4,635,707	1,499,541	3,421,195	\$4,792,582	5,077,611
2015	\$4,912,832	1,586,345	3,554,603	\$5,198,549	5,426,665
2016	\$5,209,706	1,677,925	3,693,091	\$5,632,486	5,793,796
2017	\$5,554,272	1,774,536	3,836,844	\$6,094,757	6,151,865
2018	\$5,885,969	1,876,443	3,986,057	\$6,587,062	6,563,593
2019	\$6,214,609	1,983,928	4,140,929	\$7,113,435	7,023,683
2020	\$6,565,566	2,097,288	4,204,388	\$7,674,558	7,410,668
2021	\$6,937,116	2,216,832	4,366,967	\$8,268,936	7,915,619
2022	\$7,288,543	2,342,888	4,535,664	\$8,905,762	8,495,771
2023	\$7,633,391	2,475,801	4,710,702	\$9,590,695	9,143,807
2024	\$7,953,858	2,615,931	4,892,307	\$10,330,057	9,884,437
2025	\$8,297,010	2,763,659	4,690,363	\$11,120,429	10,277,441
2026	\$8,650,559	2,919,385	971,059	\$11,861,723	7,101,608
2027	\$8,985,197	3,083,531	980,093	\$12,433,144	7,511,571
2028	\$9,271,846	3,222,290	1,024,197	\$13,038,395	8,013,036
2029	\$9,487,574	3,367,293	1,070,286	\$13,687,755	8,637,760
2030	\$9,662,100	3,518,821	1,118,449	\$14,390,186	9,365,356
2031	\$9,849,908	3,677,168	1,168,779	\$15,151,966	10,148,005
2032	\$9,972,183	3,842,640	1,221,374	\$15,980,818	11,072,649
2033	\$10,065,374	4,015,559	1,276,336	\$16,886,974	12,113,495
2034	\$10,139,928	4,196,259	1,333,771	\$17,879,594	13,269,696
2035	\$10,480,261	4,385,091	1,393,790	\$18,956,686	14,255,306

amounts in thousands

EXHIBIT 5 – SUMMARY OF PLAN PROVISIONS:

This summary is prepared in accordance with Chapter 32 as of January 1, 2006, and does not take into account any subsequent changes.

1. Administration

Each of the 107 contributory retirement systems for public employees of the Commonwealth of Massachusetts are guided by the applicable provisions of Chapter 32 of the Massachusetts General Laws and other applicable statutes. Although these boards operate semi-independently, there is a uniform set of rules governing benefits, eligibility, contributions, financing, and accounting.

2. Participation

Participation is mandatory for all full-time employees whose employment commences prior to age 65. Eligibility with respect to part-time, professional, temporary, or intermittent employment is governed by the local board. Membership is optional for certain elected officials, State officials appointed by the Governor, and certain hospital interns.

There are four classes of membership as follows:

- (i) Group 1: Most general employees in State and local government
- (ii) Group 2: Certain specified hazardous duty positions
- (iii) Group 3: State police officers and inspectors
- (iv) Group 4: Local police officers, firefighters, and designated employees of the municipal light department.

For members in more than one group, participation will be proportional.

3. **Salary**

Salary is defined as gross regular compensation. Salary does not include bonuses, overtime, severance pay, unused sick leave credit, or other similar compensation.

4. **Member Contributions**

Member contributions vary depending upon date hired as follows:

<u>Date of Hire</u>	<u>Member Contribution Rate</u>
Prior to 1975	5.0% of Salary
1975 to 1983	7.0% of Salary
1984 to 1996	8.0% of Salary
1996 and Later plus	9.0% of Salary
1979 and Later	2.0% of Salary in excess of \$30,000

5. **Average Salary**

Average salary is used to determine a participant's benefit. It is defined as the average salary during the three consecutive-year period that produces the highest average. (Alternatively, if a greater amount results, it is the average rate of salary earned during the period or periods, whether or not consecutive, that constitutes the last three years preceding retirement.)

6. **Creditable Service**

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

7. Service Retirement

a. Eligibility:

For an employee to be eligible for service retirement (also referred to as superannuation), one of the following conditions must be met:

- (i) completion of 20 years of service
- (ii) for an employee hired prior to January 1, 1978, attainment of age 55 as an active member
- (iii) for an employee hired on or after January 1, 1978, attainment of age 55 as an active member and completion of ten years of service

b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times Creditable Service, where Benefit Rate is determined from the following table:

<u>Age at Retirement</u>	<u>Percentage of Average Salary</u>		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
65 or Over	.025	.025	.025
64	.024	.025	.025
63	.023	.025	.025
62	.022	.025	.025
61	.021	.025	.025
60	.020	.025	.025
59	.019	.024	.025
58	.018	.023	.025
57	.017	.022	.025
56	.016	.021	.025
55	.015	.020	.025
54	.014	.014	.024
53	.013	.013	.023
52	.012	.012	.022
51	.011	.011	.021
50	.010	.010	.020
49	.009	.009	.019
48	.008	.008	.018
47	.007	.007	.017
46	.006	.006	.016
45	.005	.005	.015
44	.004	.004	.004
43	.003	.003	.003
42	.002	.002	.002
41	.001	.001	.001

8. Deferred Vested Retirement

a. Eligibility:

A participant who has completed ten or more years of creditable service is eligible for a deferred vested retirement benefit. If termination is involuntary, the participant is vested after six years.

b. Benefit Amount:

The participant's accrued benefit is payable commencing at age 55, or may be deferred until later at the employee's option.

c. Refund of Contributions:

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions. Members with ten or more years of service are entitled to 100% of the credited interest on their contributions. Members with five to ten years of service are entitled to 50% of the credited interest on their contributions. No credited interest is provided for members with less than five years of service.

9. Accidental Disability

a. Eligibility:

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

b. Benefit Amount:

The accidental disability amount is 72% of annual salary plus \$450 per year for each child plus an additional annuity based upon accumulated Member Contributions with credited interest.

10. Ordinary Disability**a. Eligibility:**

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have ten years of service (and be less than age 55).

b. Benefit Amount:

The ordinary disability amount is equal to the accrued retirement benefit as if the member were age 55. If the member was a veteran, the benefit is 50% of the member's final rate of Salary during the preceding 12 months, plus an annuity based upon accumulated Member Contributions plus credited interest. If the participant is over age 55, he will receive not less than the superannuation allowance to which he is entitled.

11. Survivor Benefits**a. Occupational Death:**

The survivors of a member who dies due to an occupational injury will be entitled to a lump sum return of contributions plus a pension benefit equal to 72% of the participant's annual Salary.

b. Non-Occupational Death:

Upon the death of a member other than due to an occupational injury, the designated beneficiary will be entitled to a retirement benefit as if Option C had been elected with a minimum of \$250 per month to the surviving spouse, plus \$120 for the first child, plus \$90 for each additional child. If no beneficiary is designated and if the employee worked two years, and is married at least one year, the spouse may elect benefits. If there is no designated beneficiary or surviving spouse, then member contributions are returned. If there are dependent children but no surviving spouse, they may elect minimum survivor benefits of \$250 per month plus \$120 for the first child and \$90 for each additional child.

c. Refund of Contributions:

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

12. Cost-of-Living Increases

In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a cost-of-living adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees, and beneficiaries who have been receiving benefits payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is \$12,000. All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the State and are not the liability of the Retirement System.

13. Postretirement Death Benefits

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement. There are three available forms as follows:

- (i) Option A – Life annuity
- (ii) Option B – Life annuity with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member
- (iii) Option C – Life annuity with 66-2/3% of benefit continued after death of member to designated joint annuitant

EXHIBIT 6 – ACTUARIAL METHODS AND ASSUMPTIONS:

The actuarial cost method, factors, and assumptions used in determining cost estimates are presented below.

1. Member Data

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired, and disabled members of the employer as supplied by the employer to the actuary.

2. Valuation Date

January 1, 2006.

3. Actuarial Cost Method

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

4. Rate of Investment Return

It is assumed that the assets of the fund will accumulate at a compound annual rate of 8.25% per annum.

5. Salary Scale

It is assumed that salaries including longevity will increase according to the following table:

<u>Year</u>	<u>Rate</u>
2006	3.5%
2007	3.5%
2008	4.0%
2009	4.0%
2010	4.5%
2011	4.5%
2012+	5.0%

6. Cost-of-Living Increases

Cost-of-living increases have been assumed to be 3.0% of the lesser of the pension amount and \$12,000 per year.

7. Value of Investments

Assets held by the fund are valued at market value as reported by the Public Employees' Retirement Administration Commission (PERAC). The actuarial value of assets is set equal to the market value.

8. Annual Rate of Withdrawal Prior to Retirement

Based on an analysis of experience, the assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

<u>Service</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
0	0.1500	0.0150
10	0.0540	0.0150
20	0.0200	0.0000
30	0.0000	0.0000

9. Annual Rate of Mortality

It is assumed that both pre-retirement and post retirement mortality are represented by the RP-2000 Mortality Table for males and females. Mortality for disabled members is represented by the RP-2000 Mortality Table set forward two years for all disabled members.

10. Service Retirement

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages:

<u>Age</u>	<u>Male General Employees</u>	<u>Female General Employees</u>	<u>Male and Female Police and Fire Employees</u>
50	0.0100	0.0150	0.02000
51	0.0100	0.0150	0.02000
52	0.0100	0.0200	0.02000
53	0.0100	0.0250	0.05000
54	0.0200	0.0250	0.07500
55	0.0200	0.0550	0.15000
56	0.0250	0.0650	0.10000
57	0.0250	0.0650	0.10000
58	0.0500	0.0650	0.10000
59	0.0650	0.0650	0.15000
60	0.1200	0.0500	0.20000
61	0.2000	0.1300	0.20000
62	0.3000	0.1500	0.25000
63	0.2500	0.1250	0.25000
64	0.2200	0.1800	0.30000
65	0.4000	0.1500	1.00000
66	0.2500	0.2000	1.00000
67	0.2500	0.2000	1.00000
68	0.3000	0.2500	1.00000
69	0.3000	0.2000	1.00000
70	1.0000	1.0000	1.00000

11. Annual Rate of Disability Prior to Retirement

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following probabilities at the following ages:

<u>Attained Age</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
20	0.0001	0.0001
30	0.0003	0.0003
40	0.0010	0.0030
50	0.0019	0.0125

In addition, it is assumed for the general employees that 50% of all disabilities are ordinary (50% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

12. Family Composition

It is assumed that 80% of all members will be survived by a spouse and that females (males) are three years younger (older) than members.

13. Administrative Expenses

The normal cost is increased by an amount equal to the anticipated administrative expenses for the upcoming fiscal year. The amount for fiscal year 2006 is \$125,000 and is anticipated to increase at 4.5% per year.

EXHIBIT 7 – GLOSSARY OF TERMS:

This glossary summarizes the technical terms contained in this report.

1. Actuarial Accrued Liability

That portion of the Actuarial Present Value of plan benefits that is not provided for by future employer Normal Costs or employee contributions.

2. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting the Retirement System such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

3. Actuarial Cost Method

A procedure for allocating the Actuarial Present Value of pension plan benefits between Normal Cost and Actuarial Accrued Liability.

4. Actuarial Present Value

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

5. Forecast

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions, and additional assumptions as to the replacement of terminating employees with new employees.

6. Normal Cost

That portion of the Actuarial Present Value of future benefits that is assigned to the current year.

7. Unfunded Actuarial Accrued Liability

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

8. Valuation Method

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs, and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.

9. Vested Liability

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

CERTIFICATION:

This report fairly represents the actuarial position of the Town of Amesbury Retirement System contributing as of January 1, 2006, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, the actuarial assumptions used to compute actuarial accrued liability and normal cost are reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

Buck Consultants, LLC

Daniel W. Sherman, ASA, MAAA
Enrolled Actuary No. 05-4086

July 2006

BREAKOUTS

Breakouts - Payroll Based

	<u>Total</u>	<u>All Others</u>	<u>Housing</u>	<u>School</u>	<u>Sewer</u>	<u>Water</u>
(1) Participants						
(a) Actives	314	158	7	129	6	14
(b) Inactives	80	26	1	53	0	0
(c) Retirees	212	139	5	62	1	5
(d) Disabled Retirees	<u>17</u>	<u>16</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>
(e) Total	623	339	14	244	7	19
(2) Payroll of Active Participants	\$11,652,440	\$7,376,635	\$297,075	\$3,074,246	\$291,115	\$613,369
(3) Percentage of Payroll	100.00%	63.31%	2.55%	26.38%	2.50%	5.26%
(4) Normal Cost						
(a) ERI	210,521	201,511	0	9,010	0	0
(b) Remaining Amortizations	1,501,051	950,248	38,269	396,020	37,501	79,013
(c) Employer Normal Cost	515,760	326,504	13,149	136,072	12,885	27,149
(d) Administrative Expenses	<u>125,000</u>	<u>79,132</u>	<u>3,187</u>	<u>32,979</u>	<u>3,123</u>	<u>6,580</u>
(e) Total	2,352,331	1,557,394	54,605	574,081	53,509	112,742
(5) Fiscal 2007 Cost	\$2,103,039	\$1,419,583	53,779	484,136	47,574	97,967
(6) Fiscal 2008 Cost	\$2,615,125	\$1,731,381	60,705	638,215	59,487	125,337
(7) Percentage of Total Cost	100.00%	66.21%	2.32%	24.40%	2.27%	4.79%

*Appropriations are allocated based on the ratio of the division payroll to the total payroll.

Breakouts - Actuarial Based

	<u>Total</u>	<u>All Others</u>	<u>Housing</u>	<u>School</u>	<u>Sewer</u>	<u>Water</u>
(1) Participants						
(a) Actives	314	158	7	129	6	14
(b) Inactives	80	26	1	53	0	0
(c) Retirees	212	139	5	62	1	5
(d) Disabled Retirees	<u>17</u>	<u>16</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>
(e) Total	623	339	14	244	7	19
(2) Payroll of Active Participants	\$11,652,440	\$7,376,635	\$297,075	\$3,074,246	\$291,115	\$613,369
(3) Normal Cost						
(a) Total Normal Cost	1,591,183	1,084,259	37,720	390,103	23,942	55,159
(b) Expected Employee Contributions	950,423	609,121	24,035	244,255	23,545	49,467
(c) Administrative Expenses	<u>125,000</u>	<u>85,177</u>	<u>2,963</u>	<u>30,646</u>	<u>1,881</u>	<u>4,333</u>
(d) Net Employer Normal Cost (a) - (b)	640,760	475,138	13,685	145,848	397	5,692
(4) Actuarial Accrued Liability	56,634,407	41,943,333	1,705,663	9,918,130	1,083,196	1,984,085
(5) Assets*	<u>31,892,926</u>	<u>23,619,840</u>	<u>960,522</u>	<u>5,585,265</u>	<u>609,988</u>	<u>1,117,312</u>
(6) Unfunded Actuarial Accrued Liability (4) - (5)	24,741,481	18,323,493	745,141	4,332,865	473,208	866,773
(7) Amortizations*	1,711,571	1,313,186	45,207	271,882	28,709	52,587
(8) Total Required Employer Contributions (3d) + (7)	2,352,331	1,788,324	58,892	417,730	29,106	58,279
(9) Fiscal 2007 Cost	\$2,103,039	\$1,419,583	\$53,779	\$484,136	\$47,574	\$97,967
Percentage of Total Cost	100.0%	67.5%	2.6%	23.0%	2.3%	4.7%
(10) Fiscal 2008 Cost	\$2,615,125	\$1,988,109	\$65,472	\$464,397	\$32,358	\$64,790
Percentage of Total Cost	100.0%	76.0%	2.5%	17.8%	1.2%	2.5%

* Allocation is based on the ratio of the Unfunded Actuarial Accrued Liability