City's and the Board's commitment to reduce the liability through an aggressive funding schedule, and the Boards investment successes. The ability of the City and the Cambridge Retirement Board to reduce the unfunded liability of the system has been one of the City's greatest fiscal achievements in the last twenty years, and has contributed to the City's Aaa bond rating.

ANALYZING THE IMPACT

There are several factors to examine is analyzing the impact of COLA legislation upon the City of Cambridge, those factors include both short and long term fiscal impact, unfunded liability impact, actuarial assumptions used in costing present and future liabilities.

In developing an actuarial funding schedule there are four important factors to consider: projected rate of future salary growth of employees in system, rate of return from the investment of assets by the retirement system, mortality rates, and length of amortization of unfunded liability. Historically, the actuarial studies of the Cambridge system have assumed 6% salary growth and 8% investment returns. In recent years, actual salary growth has been less than 6% and actual investment returns have been higher than 8%. However, over the last 18 years there have been occasions of annual salary increases in excess of 6% and returns of less than 8%. Earlier studies of the Cambridge system used mortality tables from a mortality table now considered by many to be obsolete. The Massachusetts Public Employee Retirement Administration Commission (PERAC) is expected to move all systems away from a mortality table known as UP84 to GAM83, a mortality table more reflective of today's gender mix of employees and their expected life span.

UNFUNDED LIABILITY IMPACT

Exhibit 1A that follows was developed by the outside actuaries to inform the City and the Retirement Board about what the impact of granting the COLA would be upon the unfunded liability of the Retirement System. The exhibit shows several scenarios using differing rates of salary and investment growth as well as changes in mortality tables. As can be seen in the line in the middle of the page labeled "Unfunded Actuarial Accrued Liability" and highlighted with an arrow the impact varies greatly. However, Alternative 2, shows that by changing assumptions about salary and investment growth to 5 ½% and 8 ½% respectively and by adopting a more current mortality table the City could grant a COLA that while increasing the unfunded liability to a level higher than it would be without the COLA, actually decreases the unfunded liability from $111,953,684 in 1996 to $97,399,351 in 1998.

SHORT TERM FISCAL IMPACT

Once the actuarial assumptions and the unfunded liability impact of granting a COLA have been determined, the method of funding the COLA must be developed. It is important to note that the Cambridge Retirement Board approves funding scheduled under current law. In Cambridge the Retirement Board has always approved those funding schedules only after close consultation with my office.

First the short term impact. Exhibit 2, column 8, first line (identified by arrow) shows that $19,572,482 is the current appropriation for the Cambridge Retirement System in FY1999. Based upon an update to reflect the successful investment returns of recent years, the funding requirement would actually fall in this scenario. However, PERAC, the state oversight body would not let the City reduce its commitment to funding the system. The next Exhibit (4A) shows, in line 1, (arrow) column 9 and 10 that the FY1999 appropriation would increase by $1,119,000 if a COLA were granted and this funding schedule approved. This funding schedule is an aggressive one that amortizes the unfunded cost of the COLA over 15 years. Exhibit 4B has the same assumptions, as 4A except the COLA cost in amortized over 30 years. The short term benefit of a funding schedule such as Exhibit 4B is that as can be seen in line 1 (arrow) columns 9 and 10, there is no need to increase the FY1999 appropriation for the Retirement Board.

LONG TERM IMPACT

By examining the last column of Exhibits 1B, 2, 4A and 4B, keeping in mind that Exhibits 4A and 4B include the granting of a COLA one can see the long-term impact of the COLA. A review of the long term impact of granting a COLA shows that while a funding schedule of 30 years as shown in Exhibit 4B results in no increase in FY1999, this funding schedule would be over $45,000,000 more expensive to the City over the next thirty years.

CONCLUSION

Discussions concerning mortality rates, actuarial assumptions unfunded liabilities and funding schedules can be confusing. However, it is important that they be studied and reviewed. The $19,576,482 FY1999 cost of the Cambridge Retirement System is one of the largest items in the City's budget.

The analysis presented regarding the cost of granting a COLA to retirees shows that the City Council has several options to consider.

1. Not accept the legislation. Under this scenario, the unfunded liability of the system will fall from $111,953,684 in 1996 to $58,773,674 today. The annual appropriation for the Retirement System would neither increase nor decrease in FY1999 and would likely not increase much for the next few years. While it could be argued that the unfunded liability is understated because of outdated mortality tables, a change in salary and investment earnings growth to 5 ½% to 8 ½% would likely offset any losses due to a revised mortality schedule.

2. The City Council could grant a COLA and request that staff work with the Retirement Board to approve a funding schedule that amortizes the cost of the COLA over 30 years. Such a funding schedule would not require an increase in the FY1999 Retirement System appropriation but would potentially cost $45,000,000 more over 30 years than the third option available.

3. Approve a COLA and request the staff to work with the Retirement Board to approve a funding schedule that amortizes the cost of the COLA over 15 years. Such a funding schedule while totaling $45,000,000 less over 30 years than option 2 above, would require an increase of $1,119,000 in FY1999. Some of the increase in FY1999 funding the requirement under this scenario would come from the Cambridge Public Health Commission (19%) and the balance could come from free cash and taxes.

While the decision to grant a COLA to retirees is a legislative/policy decision, I would urge that if the COLA legislation is accepted that the Retirement Board approve a funding schedule that aggressively amortizes the unfunded cost of the COLA over 15 years and protects the long term fiscal health of the City and the Retirement System.

In closing I would also like to thank the members and staff of the Cambridge Retirement Board for their work and assistance in analyzing this matter. They are to be commended for their close cooperation with the City of this very important matter.

Very truly yours,

Robert W. Healy
City Manager

RWH/mec
Attachments

Exhibit 1A

Cambridge Contributory Retirement System

Actuarial Valuation as of January 1, 1998

Summary of Key Results

	Alternative 2 KPMG with COLA 1998 GAM83	Alternative 1 KPMG with COLA 1998 GAM83	Current KPMG with COLA 1998 UP84	Alternative 2 KPMG without COLA 1998 GAM83	Alternative 1 KPMG without COLA 1998 GAM83	Current KPMG without COLA 1998 UP84	KPMG 1996
KEY ACTUARIAL ASSUMPTIONS							
Rate of Return on Assets	8.50%	8.00%	8.00%	8.50%	8.00%	8.00%	8.00%
Annual Salary Increases	5.50%	6.00%	6.00%	5.50%	6.00%	6.00%	6.00%
Mortality Table	GAM83	GAM83	UP84	GAM83	GAM83	UP84	
SUMMARY OF MEMBER DATA							
Number Active	3,400	3,400	3,400	3,400	3,400	3,400	3,422
Number of Retirees and Beneficiaries	1,606	1,606	1,606	1,606	1,606	1,606	1,574
Number of Inactive	380	380	380	380	380	380	535
Total Membership	5,386	5,386	5,386	5,386	5,386	5,386	5,531
Valuation Payroll *	132,439,810	133,067,488	133,067,488	132,439,810	133,067,488	133,067,488	114,386,925
Average Pay	38,953	39,137	39,137	38,953	39,137	39,137	33,427
Average Member Deduction Percent	7.65%	7.66%	7.66%	7.65%	7.66%	7.66%	7.50%
ACTUARIAL ACCRUED LIABILITY							
Active	246,049,279	270,260,721	256,827,041	221,528,310	243,326,870	231,231,974	190,799,449
Retirees and Beneficiaries	188,030,256	194,007,459	186,470,657	167,281,111	172,598,729	165,893,614	147,473,742
Inactive	2,136,763	2,136,763	2,136,763	2,136,763	2,136,763	2,136,763	3,257,642
Total	436,216,298	466,404,943	445,434,461	390,946,184	418,062,362	399,262,351	341,530,833
						1.0523	
SYSTEM ASSETS	342,787,664	342,787,664	342,787,664	342,787,664	342,787,664	342,787,664	233,883,060
Funded Ratio (Assets/Liability)	78.6%	73.5%	77.0%	87.7%	82.0%	85.9%	68.5%
Unfunded Actuarial Accrued Liability 1/1	93,428,634	123,617,279	102,646,797	48,158,520	75,274,698	56,474,687	107,647,773
Adjustment factor to convert to Fiscal Year Basis	1.0425	1.0400	1.0400	1.0425	1.0400	1.0400	1.0400
Unfunded Actuarial Accrued Liability 7/1	97,399,351	128,561,970	106,752,669	50,205,257	78,285,686	58,733,674	111,953,684
NORMAL COST							
Total Normal Cost, 1/1	16,773,619	19,422,078	18,484,317	15,101,981	17,486,497	16,642,192	14,811,801
Expected Member Contributions	10,137,292	10,189,854	10,189,854	10,137,292	10,189,854	10,189,854	8,579,223
Employer Normal Cost, 1/1	6,636,327	9,232,224	8,294,463	4,964,689	7,296,643	6,452,338	6,232,578
% of Payroll	5.01%	6.94%	6.23%	3.75%	5.48%	4.85%	5.45%
Adjustment factor to convert to Fiscal Year Basis	1.0425	1.0400	1.0400	1.0425	1.0400	1.0400	1.0400
Employer Normal Cost, 7/1	6,918,371	9,601,513	8,626,241	5,175,688	7,588,509	6,710,432	6,481,881
TOTAL COSTS							
Employer Normal Cost, with interest and expenses	7,660,402	10,433,573	9,419,291	5,843,655	8,340,049	7,426,849	
Amortization:							
Actives (Includes assumptions)	(385,461)	2,131,406	389,694	(385,461)	2,131,406	389,694	
Retirees	7,520,327	7,369,962	7,369,962	7,520,327	7,369,962	7,369,962	
ERI	439,896	431,101	431,101	439,896	431,101	431,101	
COLA (15 year amortization)	5,460,523	5,656,209	5,402,258	0	0	0	
	20,695,687	26,022,251	23,012,306	13,418,417	18,272,518	15,617,606	
w/COLA (30 year amortization)	19,454,586	24,666,551	21,717,474				
Increase vs. Current (same mortality)	6,036,170	6,394,033	6,099,868				

* Includes salary scale and adjustment for total salary

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Cambridge Contributory Retirement System

Exhibit 1B

Current Schedule

Based on KPMG Actuarial Valuation as of January 1, 1993

- Amortization of Active Unfunded Over 30 Years, Level Dollar Basis
- Amortization of Retiree Unfunded Over 14 Years, Level Dollar Basis
- Amortization of ERI Liability Over 14 Years, Level Dollar Basis

	[1a]	[1b]	[1c]	[2a]	[2b]	[2c]	[3a]	[3b]	[3c]	[4]	[5]	[6]	[7]	[8]
	Amortization of Active Unfunded			Amortization of Retiree Unfunded			Amortization of ERI Liability							
FYE June 30,	Yrs Remain	Amount Remaining	Amortization Cost	Yrs Remain	Amount Remaining	Amortization Cost	Yrs Remain	Amount Remaining	Amortization Cost	Total Unfunded Liability	Total Amort. Cost	Total Normal Cost + Expenses	Annual Cost= [5]+[6]	Cumulative Cost
1999	26	56,114,522	4,998,734	10	51,355,088	7,369,962	10	3,003,980	431,101	110,473,590	12,799,797	6,776,685	19,576,482	19,576,482
2000	25	55,412,690	4,998,734	9	47,810,073	7,369,962	9	2,796,617	431,101	106,019,380	12,799,797	7,178,806	19,978,603	39,555,085
2001	24	54,654,712	4,998,734	8	43,981,456	7,369,962	8	2,572,665	431,101	101,208,833	12,799,797	7,604,830	20,404,628	59,959,713
2002	23	53,836,096	4,998,734	7	39,846,550	7,369,962	7	2,330,796	431,101	96,013,442	12,799,797	8,056,181	20,855,978	80,815,691
2003	22	52,951,990	4,998,734	6	35,380,851	7,369,962	6	2,069,578	431,101	90,402,420	12,799,797	8,534,366	21,334,163	102,149,854
2004	21	51,997,157	4,998,734	5	30,557,897	7,369,962	5	1,787,463	431,101	84,342,517	12,799,797	9,040,982	21,840,779	123,990,634
2005	20	50,965,936	4,998,734	4	25,349,106	7,369,962	4	1,482,778	431,101	77,797,821	12,799,797	9,577,723	22,377,521	146,368,154
2006	19	49,852,218	4,998,734	3	19,723,612	7,369,962	3	1,153,719	431,101	70,729,549	12,799,797	10,146,383	22,946,180	169,314,335
2007	18	48,649,402	4,998,734	2	13,648,079	7,369,962	2	798,335	431,101	63,095,815	12,799,797	10,748,862	23,548,660	192,862,994
2008	17	47,350,361	4,998,734	1	7,086,502	7,369,962	1	414,520	431,101	54,851,383	12,799,797	11,387,175	24,186,972	217,049,966
2009	16	45,947,397	4,998,734	0	0	0	0	0	0	45,947,397	4,998,734	12,063,455	17,062,189	234,112,156
2010	15	44,432,195	4,998,734	0	0	0	0	0	0	44,432,195	4,998,734	12,779,965	17,778,699	251,890,855
2011	14	42,795,778	4,998,734	0	0	0	0	0	0	42,795,778	4,998,734	13,539,101	18,537,835	270,428,690
2012	13	41,028,447	4,998,734	0	0	0	0	0	0	41,028,447	4,998,734	14,343,401	19,342,136	289,770,826
2013	12	39,119,729	4,998,734	0	0	0	0	0	0	39,119,729	4,998,734	15,195,558	20,194,292	309,965,118
2014	11	37,058,315	4,998,734	0	0	0	0	0	0	37,058,315	4,998,734	16,098,421	21,097,155	331,062,273
2015	10	34,831,987	4,998,734	0	0	0	0	0	0	34,831,987	4,998,734	17,055,013	22,053,747	353,116,020
2016	9	32,427,552	4,998,734	0	0	0	0	0	0	32,427,552	4,998,734	18,068,534	23,067,268	376,183,289
2017	8	29,830,763	4,998,734	0	0	0	0	0	0	29,830,763	4,998,734	19,142,378	24,141,112	400,324,401
2018	7	27,026,231	4,998,734	0	0	0	0	0	0	27,026,231	4,998,734	20,280,139	25,278,873	425,603,274
2019	6	23,997,337	4,998,734	0	0	0	0	0	0	23,997,337	4,998,734	21,485,627	26,484,361	452,087,635
2020	5	20,726,130	4,998,734	0	0	0	0	0	0	20,726,130	4,998,734	22,762,878	27,761,612	479,849,247
2021	4	17,193,228	4,998,734	0	0	0	0	0	0	17,193,228	4,998,734	24,116,169	29,114,903	508,964,150
2022	3	13,377,693	4,998,734	0	0	0	0	0	0	13,377,693	4,998,734	25,550,034	30,548,768	539,512,919
2023	2	9,256,915	4,998,734	0	0	0	0	0	0	9,256,915	4,998,734	27,069,276	32,068,010	571,580,928
2024	1	4,806,475	4,998,734	0	0	0	0	0	0	4,806,475	4,998,734	28,678,984	33,677,718	605,258,646
2025	0	0	0	0	0	0	0	0	0	0	0	30,384,552	30,384,552	635,643,199
2026	0	0	0	0	0	0	0	0	0	0	0	32,191,696	32,191,696	667,834,894
2027	0	0	0	0	0	0	0	0	0	0	0	34,106,472	34,106,472	701,941,366
2028	0	0	0	0	0	0	0	0	0	0	0	36,135,298	36,135,298	738,076,664
2029	0	0	0	0	0	0	0	0	0	0	0	38,284,975	38,284,975	776,361,639
Total			129,967,088			73,699,624			4,311,009		207,977,721	568,383,918	776,361,639	

Exhibit 2

Cambridge Contributory Retirement System
Actuarial Valuation as of January 1, 1998

Funding Schedule

Amortization of 1995 Active Unfunded Over 26 Years, Level
Amortization of 1995 Retiree Unfunded Over 10 Years, Level
Amortization of ERI Unfunded Over 10 Years, Level

FYE	[1a] 1995 Active Unfunded	[1b]	[2a] 1995 Retiree Unfunded	[2b]	[3a] ERI	[3b]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
June 30,	Amount Remaining	Amort. Cost	Amount Remaining	Amort. Cost	Amount Remaining	Amort. Cost	Total Unfunded Liability	Total Amort. Cost	Normal Cost	PERA Cost of Benefits	Current Funding Schedule	Funding Requirement (5)+(6)	Cumulative Cost
1999	4,374,608	389,694	51,355,085	7,369,962	3,003,981	431,101	58,733,674	8,190,757	7,426,849	20,073,559	19,576,482	15,617,606	15,617,606
2000	4,319,894	389,694	47,810,070	7,369,962	2,796,618	431,101	54,926,582	8,190,757	7,872,460	21,594,784	19,978,603	16,063,217	31,680,824
2001	4,260,803	389,694	43,981,453	7,369,962	2,572,666	431,101	50,814,922	8,190,757	8,344,808	23,219,025	20,404,628	16,535,565	48,216,389
2002	4,196,985	389,694	39,846,548	7,369,962	2,330,797	431,101	46,374,330	8,190,757	8,845,496	24,953,256	20,855,978	17,036,253	65,252,642
2003	4,128,061	389,694	35,380,849	7,369,962	2,069,579	431,101	41,578,490	8,190,757	9,376,226	26,804,927	21,334,163	17,566,983	**82,819,626**
2004	4,053,624	389,694	30,557,895	7,369,962	1,787,464	431,101	36,398,983	8,190,757	9,938,800			18,129,557	100,949,182
2005	3,973,232	389,694	25,349,105	7,369,962	1,482,779	431,101	30,805,115	8,190,757	10,535,128			18,725,885	119,675,067
2006	3,866,408	389,694	19,723,611	7,369,962	1,153,719	431,101	24,763,738	8,190,757	11,167,235			19,357,992	139,033,060
2007	3,792,638	389,694	13,648,078	7,369,962	798,335	431,101	18,239,051	8,190,757	11,837,269			20,026,027	159,061,086
2008	3,691,366	389,694	7,086,502	7,369,962	414,520	431,101	11,192,389	8,190,757	12,547,506			20,738,263	**179,799,349**
2009	3,581,993	389,694	0	0	0	0	3,581,993	389,694	13,300,356			13,690,050	193,489,399
2010	3,463,870	389,694	0	0	0	0	3,463,870	389,694	14,098,377			14,488,071	207,977,471
2011	3,336,298	389,694	0	0	0	0	3,336,298	389,694	14,944,280			15,333,974	223,311,445
2012	3,198,519	389,694	0	0	0	0	3,198,519	389,694	15,840,937			16,230,631	239,542,076
2013	3,049,718	389,694	0	0	0	0	3,049,718	389,694	16,791,393			17,181,087	**256,723,163**
2014	2,889,013	389,694	0	0	0	0	2,889,013	389,694	17,798,876			18,188,571	274,911,733
2015	2,715,452	389,694	0	0	0	0	2,715,452	389,694	18,866,809			19,256,503	294,168,237
2016	2,528,006	389,694	0	0	0	0	2,528,006	389,694	19,998,818			20,388,512	314,556,748
2017	2,325,564	389,694	0	0	0	0	2,325,564	389,694	21,198,747			21,588,441	336,145,189
2018	2,106,926	389,694	0	0	0	0	2,106,926	389,694	22,470,671			22,860,366	**359,005,555**
2019	1,870,798	389,694	0	0	0	0	1,870,798	389,694	23,818,912			24,208,606	383,214,161
2020	1,615,779	389,694	0	0	0	0	1,615,779	389,694	25,248,046			25,637,741	408,851,901
2021	1,340,359	389,694	0	0	0	0	1,340,359	389,694	26,762,929			27,152,623	436,004,525
2022	1,042,906	389,694	0	0	0	0	1,042,906	389,694	28,368,705			28,758,399	464,762,924
2023	721,656	389,694	0	0	0	0	721,656	389,694	30,070,827			30,460,521	**495,223,446**
2024	374,706	389,694	0	0	0	0	374,706	389,694	31,875,077			32,264,771	527,488,217
2025	0	0	0	0	0	0	0	0	33,787,582			33,787,582	561,275,798
2026	0	0	0	0	0	0	0	0	35,814,836			35,814,836	597,090,635
2027	0	0	0	0	0	0	0	0	37,963,727			37,963,727	635,054,361
2028	0	0	0	0	0	0	0	0	40,241,550			40,241,550	**675,295,912**
2029	0	0	0	0	0	0	0	0	42,656,043			42,656,043	717,951,955
Total		**10,132,048**		**73,699,620**		**4,311,010**		**88,142,678**	**629,809,277**			**717,951,955**	

FY99 Normal Cost includes $448,000 for estimated Board Expenses
Remaining unfunded liability assumed to be paid mid fiscal year (January 1)
Assumes 8% interest, 6% salary scale, UP84 mortality

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Exhibit 4A

Cambridge Contributory Retirement System
Actuarial Valuation as of January 1, 1998

Funding Schedule

Amortization of 1995 Active Unfunded Over 26 Years, Level
Amortization of 1995 Retiree Unfunded Over 10 Years, Level
Amortization of ERI Unfunded Over 10 Years, Level
Amortization of COLA Unfunded Over 15 Years, Level

FYE June 30,	[1a] 1995 Active Unfunded Amount Remaining	[1b] 1995 Active Unfunded Amort. Cost	[2a] 1995 Retiree Unfunded Amount Remaining	[2b] 1995 Retiree Unfunded Amort. Cost	[3a] ERI Amount Remaining	[3b] ERI Amort. Cost	[4a] COLA Amount Remaining	[4b] COLA Amort. Cost	[5] Total Unfunded Liability	[6] Total Amort. Cost	[7] Normal Cost	[8] PERA Cost of Benefits	[9] Current Funding Schedule	[10] Funding Requirement (6)+(7)	[11] Cumulative Cost
1999	(4,153,809)	(385,461)	51,355,085	7,520,327	3,003,981	439,896	47,194,094	5,460,523	97,399,351	13,035,285	7,660,402	20,073,559	19,576,482	20,695,687	20,695,687
2000	(4,105,707)	(385,461)	47,893,357	7,520,327	2,801,490	439,896	45,522,457	5,460,523	92,111,596	13,035,285	8,081,724	21,594,784	19,978,603	21,117,009	41,812,696
2001	(4,053,517)	(385,461)	44,137,381	7,520,327	2,581,787	439,896	43,708,731	5,460,523	86,374,382	13,035,285	8,526,219	23,219,025	20,404,628	21,561,504	63,374,199
2002	(3,996,890)	(385,461)	40,062,148	7,520,327	2,343,409	439,896	41,740,839	5,460,523	80,149,505	13,035,285	8,995,161	24,953,256	20,855,978	22,030,446	85,404,645
2003	(3,935,450)	(385,461)	35,640,520	7,520,327	2,084,768	439,896	39,605,676	5,460,523	73,395,514	13,035,285	9,489,894	26,804,927	21,334,183	22,525,179	107,929,824
2004	(3,868,788)	(385,461)	30,843,054	7,520,327	1,804,144	439,896	37,289,024	5,460,523	66,067,433	13,035,285	10,011,839			23,047,124	130,976,948
2005	(3,796,460)	(385,461)	25,637,802	7,520,327	1,499,666	439,896	34,775,456	5,460,523	58,116,465	13,035,285	10,562,490			23,597,775	154,574,723
2006	(3,717,983)	(385,461)	19,990,105	7,520,327	1,169,308	439,896	32,048,235	5,460,523	49,489,665	13,035,285	11,143,427			24,178,712	178,753,435
2007	(3,632,836)	(385,461)	13,862,353	7,520,327	810,869	439,896	29,089,201	5,460,523	40,129,587	13,035,285	11,756,315			24,791,600	203,545,035
2008	(3,540,452)	(385,461)	7,213,743	7,520,327	421,963	439,896	25,878,648	5,460,523	29,973,903	13,035,285	12,402,913			25,438,198	228,983,232
2009	(3,440,214)	(385,461)	0	0	0	0	22,395,199	5,460,523	18,954,985	5,075,062	13,085,073			18,160,135	247,143,367
2010	(3,331,457)	(385,461)	0	0	0	0	18,615,656	5,460,523	15,284,199	5,075,062	13,804,752			18,879,814	266,023,181
2011	(3,213,455)	(385,461)	0	0	0	0	14,514,853	5,460,523	11,301,397	5,075,062	14,564,013			19,639,075	285,662,256
2012	(3,085,423)	(385,461)	0	0	0	0	10,065,481	5,460,523	6,980,057	5,075,062	15,365,034			20,440,096	306,102,351
2013	(2,946,509)	(385,461)	0	0	0	0	5,237,912	5,460,523	2,291,403	5,075,062	16,210,111			21,285,173	327,387,524
2014	(2,795,786)	(385,461)	0	0	0	0	0	0	(2,795,786)	(385,461)	17,101,667			16,716,205	344,103,729
2015	(2,632,253)	(385,461)	0	0	0	0	0	0	(2,632,253)	(385,461)	18,042,258			17,656,797	361,760,526
2016	(2,454,819)	(385,461)	0	0	0	0	0	0	(2,454,819)	(385,461)	19,034,583			18,649,121	380,409,648
2017	(2,262,303)	(385,461)	0	0	0	0	0	0	(2,262,303)	(385,461)	20,081,485			19,698,023	400,105,671
2018	(2,053,423)	(385,461)	0	0	0	0	0	0	(2,053,423)	(385,461)	21,185,966			20,800,505	420,906,176
2019	(1,826,788)	(385,461)	0	0	0	0	0	0	(1,826,788)	(385,461)	22,351,194			21,965,733	442,871,909
2020	(1,580,889)	(385,461)	0	0	0	0	0	0	(1,580,889)	(385,461)	23,580,510			23,195,049	466,066,958
2021	(1,314,089)	(385,461)	0	0	0	0	0	0	(1,314,089)	(385,461)	24,877,438			24,491,977	490,558,935
2022	(1,024,611)	(385,461)	0	0	0	0	0	0	(1,024,611)	(385,461)	26,245,697			25,860,236	516,419,171
2023	(710,528)	(385,461)	0	0	0	0	0	0	(710,528)	(385,461)	27,689,211			27,303,749	543,722,920
2024	(369,747)	(385,461)	0	0	0	0	0	0	(369,747)	(385,461)	29,212,117			28,826,656	572,549,578
2025	0	0	0	0	0	0	0	0	0	0	30,818,784			30,818,784	603,368,360
2026	0	0	0	0	0	0	0	0	0	0	32,513,817			32,513,817	635,882,176
2027	0	0	0	0	0	0	0	0	0	0	34,302,077			34,302,077	670,184,253
2028	0	0	0	0	0	0	0	0	0	0	36,188,691			36,188,691	706,372,944
2029	0	0	0	0	0	0	0	0	0	0	38,179,069			38,179,069	744,552,013
Total		(10,021,995)		75,203,266		4,398,965		81,907,849		151,488,085	593,063,928			744,552,013	

FY99 Normal Cost includes $448,000 for estimated Board Expenses
Remaining unfunded liability assumed to be paid mid fiscal year (January 1)
Assumes 8.5% interest, 5.5% salary scale, GAM83 mortality

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Exhibit 4B

Cambridge Contributory Retirement System
Actuarial Valuation as of January 1, 1998

Funding Schedule

Amortization of 1995 Active Unfunded Over 26 Years, Level
Amortization of 1995 Retiree Unfunded Over 10 Years, Level
Amortization of ERI Unfunded Over 10 Years, Level
Amortization of COLA Unfunded Over 30 Years, Level

FYE June 30,	[1a] 1995 Active Unfunded Amount Remaining	[1b] Amort. Cost	[2a] 1995 Retiree Unfunded Amount Remaining	[2b] Amort. Cost	[3a] ERI Amount Remaining	[3b] Amort. Cost	[4a] COLA Amount Remaining	[4b] Amort. Cost	[5] Total Unfunded Liability	[6] Total Amort. Cost	[7] Normal Cost	[8] PERA Cost of Benefits	[9] Current Funding Schedule	[10] Funding Requirement (6)+(7)	[11] Cumulative Cost
1999	(4,153,809)	(385,461)	51,355,085	7,520,327	3,003,981	439,896	47,194,094	4,219,423	97,399,351	11,794,184	7,660,402	20,073,559	19,576,482	19,454,586	19,454,586
2000	(4,105,707)	(385,461)	47,893,357	7,520,327	2,801,490	439,896	46,814,154	4,219,423	93,403,293	11,794,184	8,081,724	21,594,784	19,978,603	19,875,908	39,330,494
2001	(4,053,517)	(385,461)	44,137,381	7,520,327	2,581,787	439,896	46,401,919	4,219,423	89,067,570	11,794,184	8,526,219	23,219,025	20,404,628	20,320,403	59,650,898
2002	(3,996,890)	(385,461)	40,062,148	7,520,327	2,343,409	439,896	45,954,645	4,219,423	84,363,311	11,794,184	8,995,161	24,953,256	20,855,978	20,789,345	80,440,243
2003	(3,935,450)	(385,461)	35,640,520	7,520,327	2,084,768	439,896	45,469,352	4,219,423	79,259,190	11,794,184	9,489,894	26,804,927	21,334,163	21,284,079	101,724,322
2004	(3,868,788)	(385,461)	30,843,054	7,520,327	1,804,144	439,896	44,942,810	4,219,423	73,721,219	11,794,184	10,011,839			21,806,023	123,530,345
2005	(3,796,460)	(385,461)	25,637,802	7,520,327	1,499,686	439,896	44,371,511	4,219,423	67,712,520	11,794,184	10,562,490			22,356,674	145,887,019
2006	(3,717,983)	(385,461)	19,990,105	7,520,327	1,169,308	439,896	43,751,652	4,219,423	61,193,082	11,794,184	11,143,427			22,937,611	168,824,630
2007	(3,632,836)	(385,461)	13,862,353	7,520,327	810,869	439,896	43,079,105	4,219,423	54,119,491	11,794,184	11,756,315			23,550,500	192,375,130
2008	(3,540,452)	(385,461)	7,213,743	7,520,327	421,963	439,896	42,349,391	4,219,423	46,444,645	11,794,184	12,402,913			24,197,097	216,572,227
2009	(3,440,214)	(385,461)	0	0	0	0	41,557,652	4,219,423	38,117,437	3,833,961	13,085,073			16,919,034	233,491,261
2010	(3,331,457)	(385,461)	0	0	0	0	40,698,615	4,219,423	37,367,158	3,833,961	13,804,752			17,638,713	251,129,974
2011	(3,213,455)	(385,461)	0	0	0	0	39,766,559	4,219,423	36,553,104	3,833,961	14,564,013			18,397,974	269,527,949
2012	(3,085,423)	(385,461)	0	0	0	0	38,755,279	4,219,423	35,669,856	3,833,961	15,365,034			19,198,995	288,726,944
2013	(2,946,509)	(385,461)	0	0	0	0	37,658,040	4,219,423	34,711,532	3,833,961	16,210,111			20,044,072	308,771,016
2014	(2,795,766)	(385,461)	0	0	0	0	36,467,536	4,219,423	33,671,750	3,833,961	17,101,667			20,935,628	329,706,644
2015	(2,632,253)	(385,461)	0	0	0	0	35,175,839	4,219,423	32,543,587	3,833,961	18,042,258			21,876,220	351,582,864
2016	(2,454,819)	(385,461)	0	0	0	0	33,774,348	4,219,423	31,319,530	3,833,961	19,034,583			22,868,544	374,451,408
2017	(2,262,303)	(385,461)	0	0	0	0	32,253,730	4,219,423	29,991,428	3,833,961	20,081,485			23,915,446	398,366,854
2018	(2,053,423)	(385,461)	0	0	0	0	30,603,860	4,219,423	28,550,437	3,833,961	21,185,966			25,019,928	423,386,781
2019	(1,826,788)	(385,461)	0	0	0	0	28,813,750	4,219,423	26,986,962	3,833,961	22,351,194			26,185,156	449,571,937
2020	(1,580,889)	(385,461)	0	0	0	0	26,871,482	4,219,423	25,290,592	3,833,961	23,580,510			27,414,472	476,986,409
2021	(1,314,089)	(385,461)	0	0	0	0	24,764,120	4,219,423	23,450,030	3,833,961	24,877,438			28,711,400	505,697,808
2022	(1,024,611)	(385,461)	0	0	0	0	22,477,633	4,219,423	21,453,021	3,833,961	26,245,697			30,079,659	535,777,467
2023	(710,528)	(385,461)	0	0	0	0	19,996,794	4,219,423	19,286,266	3,833,961	27,689,211			31,523,172	567,300,639
2024	(369,747)	(385,461)	0	0	0	0	17,305,084	4,219,423	16,935,337	3,833,961	29,212,117			33,046,079	600,346,718
2025	0	0	0	0	0	0	14,384,578	4,219,423	14,384,578	4,219,423	30,818,784			35,038,206	635,384,924
2026	0	0	0	0	0	0	11,215,830	4,219,423	11,215,830	4,219,423	32,513,817			36,733,240	672,118,164
2027	0	0	0	0	0	0	7,777,738	4,219,423	7,777,738	4,219,423	34,302,077			38,521,499	710,639,663
2028	0	0	0	0	0	0	4,047,408	4,219,423	4,047,408	4,219,423	36,188,691			40,408,114	751,047,777
2029	0	0	0	0	0	0	0	0	0	0	38,179,069			38,179,069	789,226,846
Total		(10,021,995)		75,203,266		4,398,965		126,582,682		196,162,918	593,063,928			789,226,846	

FY99 Normal Cost includes $448,000 for estimated Board Expenses
Remaining unfunded liability assumed to be paid mid fiscal year (January 1)
Assumes 8.5% interest, 5.5% salary scale, GAM83 mortality

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CITY OF CAMBRIDGE
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EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

14.

June 1, 1998

To The Honorable, The City Council:

Chapter 17 of the Acts of 1997 signed by the Governor on June 6, 1997 and effective September 4, 1997 amended Chapter 32 of the General Laws by creating a new section which transfers the responsibility for approving and paying for retiree cost-of-living adjustments (COLA) from the Commonwealth to local retirement boards. Prior to this act, the Commonwealth approved and funded retiree cost-of-living adjustments. This act is accepted locally by vote of the local retirement board subject to the approval of the local legislative body (City Council). In a separate communication, included in this Council meeting agenda (June 1, 1998) the Cambridge Retirement Board informs you of its acceptance of the act at its meeting on May 20, 1998 and requests City Council approval. If the City Council accepts the provisions of Chapter 17 of the Acts of 1997, a cost-of-living adjustment of 2.1% will be granted to all City of Cambridge Retirees effective July 1, 1998. The COLA will only be on the first $12,000 of each retiree's pension. It should also be noted that future COLA's will equal 3% or the CPI which ever is less, on only the first $12,000 of pension earnings. A decision to accept cannot be revoked. The act does not contain a provision for a recommendation or approval by the local City Manager or Mayor. Accordingly, I am neither recommending for or against acceptance. However, as the individual responsible for the City's finances, I will offer an analysis of the potential fiscal impact, both short term and long term, upon the City.

BACKGROUND

In October of 1989, the City Council accepted Chapter 32, Section 22D of the General Laws, which repealed a cap of $30,000 for pensions. As part of the acceptance of that act, an actuarial funding schedule had to be approved by the Cambridge Retirement Board which would fully fund the City's unfunded pension liability over a 30 year period. As of July 1, 1991, the unfunded pension liability of the City of Cambridge was $137,828,343. This liability was determined by an actuarial study done by the firm of Peat Marwick. Shortly thereafter, the Retirement Board approved an aggressive funding schedule developed by Peat Marwick in conjunction with the Retirement Board and my staff. The funding schedule was then approved by the state regulatory agency overseeing local retirement boards. As a result of that aggressive funding schedule, annual City budget increases for pensions have been in the vicinity of 2% throughout this decade and the unfunded liability has declined from $137,828,343 in 1991 to an estimated $58,733,674 today. That decrease is a result of both the

Consent Agenda #14 3925

Relative to cost-of-living adjustment legislation for retirees.

In City Council June 1, 1998

PLACED ON FILE