



TOWN OF WEST HARTFORD PENSION PLAN

**Actuarial Valuation as of July 1, 2023
To Determine Funding for Fiscal Year 2024-25**

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Certification

As part of our engagement with the Town of West Hartford ("Town"), we have performed an actuarial valuation of the Plan as of July 1, 2023. Our findings are set forth in this actuary's report. The main purposes of this report are to determine funding for fiscal year 2024-25, to review the Plan's experience since the prior valuation, and to assess the funded position of the Plan.

Actuarial computations presented in this report are for the purposes of determining the recommended funding amounts for the Plan. The calculations in this report have been made on a basis consistent with our understanding of the Plan's funding policy and on our understanding of the plan provisions as summarized in this report. Determinations for purposes other than meeting these requirements, such as for financial reporting in accordance with GASB standards, may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

We believe that the measures of funded status contained herein are appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations and for assessing the need for or the amount of future contributions. Note that a Plan's funded status is dependent on the selection of both the actuarial cost method and the asset smoothing method; different measurements would result if, for instance, the Market Value of Assets were used in place of the Actuarial Value of Assets.

Actuarial assumptions, including interest rates, mortality tables, and others identified in this report, and actuarial cost methods are adopted by the Town, who is responsible for selecting the Plan's funding policy, actuarial cost methods, asset valuation methods, and actuarial assumptions. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. The Town is solely responsible for communicating to Milliman any changes thereto. All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which, in our professional opinion, are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated future experience affecting the Plan and are expected to have no significant bias.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or modifications to contribution calculations based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of future measurements.

Certification

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the Town. This information includes, but is not limited to, benefit provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different, and our calculations may need to be revised. Figures for periods prior to July 1, 2019 have been obtained from actuarial valuation reports prepared by Hooker & Holcombe and from the Town's Comprehensive Annual Financial Reports.

Milliman's work is prepared solely for the use and benefit of the Town. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the Town may provide a copy of Milliman's work, in its entirety, to the Town's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Town; and (b) the Town may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States*, published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



Rebecca A. Sielman, FSA
Consulting Actuary



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Consulting Actuary

Section I - Executive Summary Changes Since the Prior Valuation

Plan Experience

From July 1, 2022 to July 1, 2023, the plan's assets earned 11.01% on a Market Value basis and 3.91% on an Actuarial Value basis. The interest rate assumption for this period was 6.25%; the result is an asset gain of about \$22.58 million on a Market Value basis and a loss of about \$13.04 million on an Actuarial Value basis.

From July 1, 2022 to July 1, 2023, the Accrued Liability was expected to grow from \$614.0 million to \$620.8 million, based on expected changes in the plan's membership per the actuarial assumptions. Actual changes in the plan's membership during this period resulted in an Accrued Liability as of July 1, 2023 of \$618.0 million (measured before any changes in the plan provisions or the actuarial methods and assumptions). This difference of \$2.8 million between the expected Accrued Liability and the actual Accrued Liability is termed a 'liability gain'. The primary factors contributing to this liability gain were: (1) a modest gain from mortality experience, with more retiree deaths than expected; (2) a modest gain from retirement/termination experience, with more terminations than expected and lower benefits for new retirees than expected; and (3) a small gain from salary growth, with smaller pay increases than expected.

Plan Changes

The employee contribution rate was updated for several unions reflecting the latest changes in the collective bargaining agreements between the Town and those unions. This change had an immaterial impact on the Unfunded Accrued Liability and caused the Actuarially Determined Contribution to decrease by about \$0.01 million.

Changes in Actuarial Assumptions

The following assumptions were updated based a study of plan experience during 7/1/2017-7/1/2022: salary scale, retirement rates and termination rates. In addition, the interest rate and inflation rates were changed. These changes in combination caused the Unfunded Accrued Liability to decrease by about \$15.17 million and the Actuarially Determined Contribution to decrease by about \$1.41 million.

Changes in Actuarial Methods

None.

Other Significant Changes

Although it is possible that the COVID-19 pandemic could have a material impact on the projected mortality, liabilities, and contribution requirements, we have chosen not to make an adjustment in the projections at this time, given the substantial current uncertainty regarding the impact of COVID-19 on mortality and plan costs, including whether the pandemic will increase or decrease mortality during the term of our projections. We will be monitoring this development closely and may adjust future projections to reflect the impact of COVID-19, if and when it becomes appropriate.

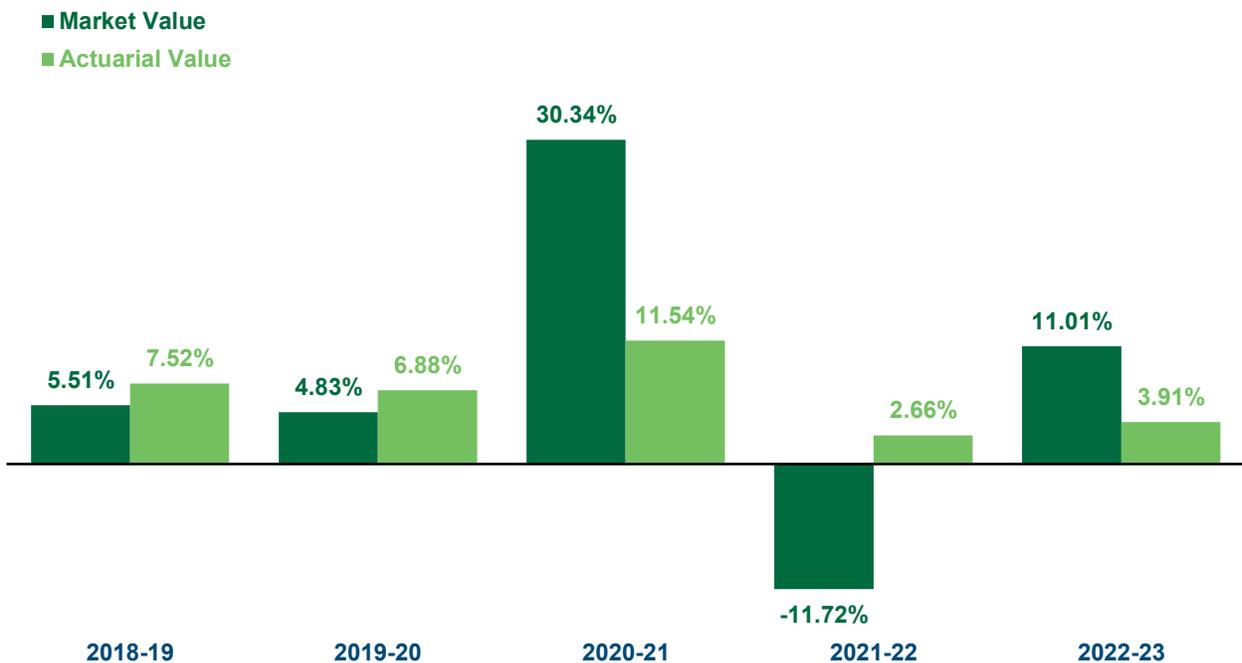
Section I - Executive Summary Assets

There are two different measures of the plan's assets that are used throughout this report. The Market Value is a snapshot of the plan's investments as of the valuation date. The Actuarial Value is a smoothed asset value designed to temper the volatile fluctuations in the market by recognizing investment gains or losses asymptotically over five years.

	Market	Actuarial
Value as of July 1, 2022	\$489,126,046	\$571,724,493
Town and Member Contributions	10,575,895	10,575,895
Investment Income	52,217,036	21,761,475
Benefit Payments and Administrative Expenses	<u>(40,514,569)</u>	<u>(40,514,569)</u>
Value as of July 1, 2023	511,404,408	563,547,294

The Actuarial Value currently exceeds the Market Value by \$52.1 million. This figure represents investment losses that will be gradually recognized in future years. This process will exert upward pressure on the Town's contribution, unless there are offsetting market gains.

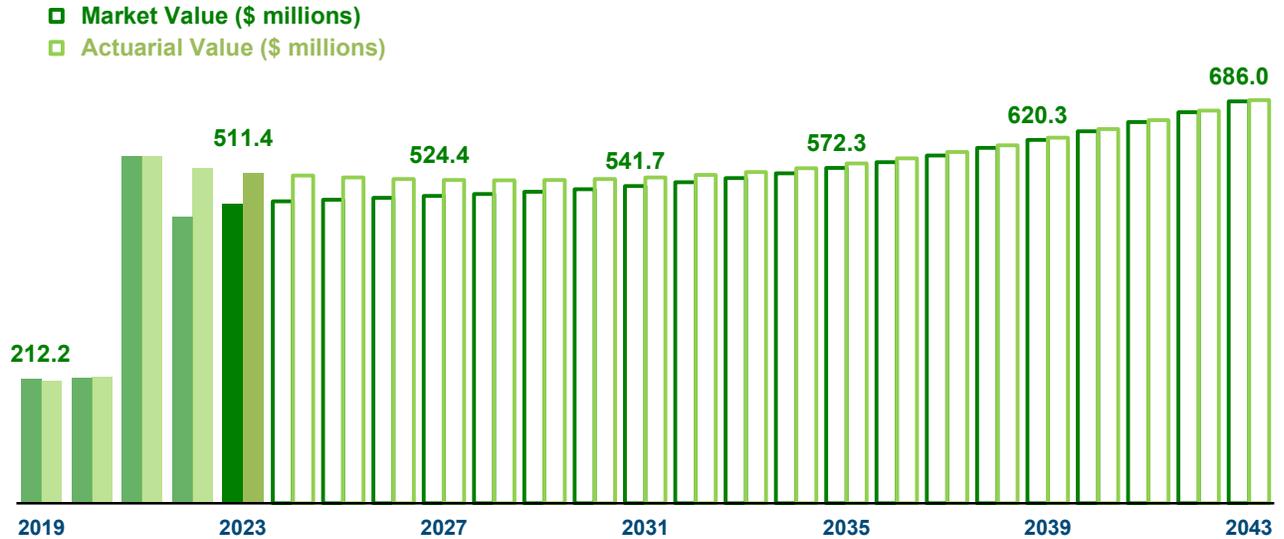
Historical rates of return are shown in the graph below:



In addition to the pension trust assets discussed above, the Town maintains a Pension Reserve Fund to provide budgetary stability in times of market turmoil. As of July 1, 2023, the Pension Reserve Fund balance was \$27,462,364.

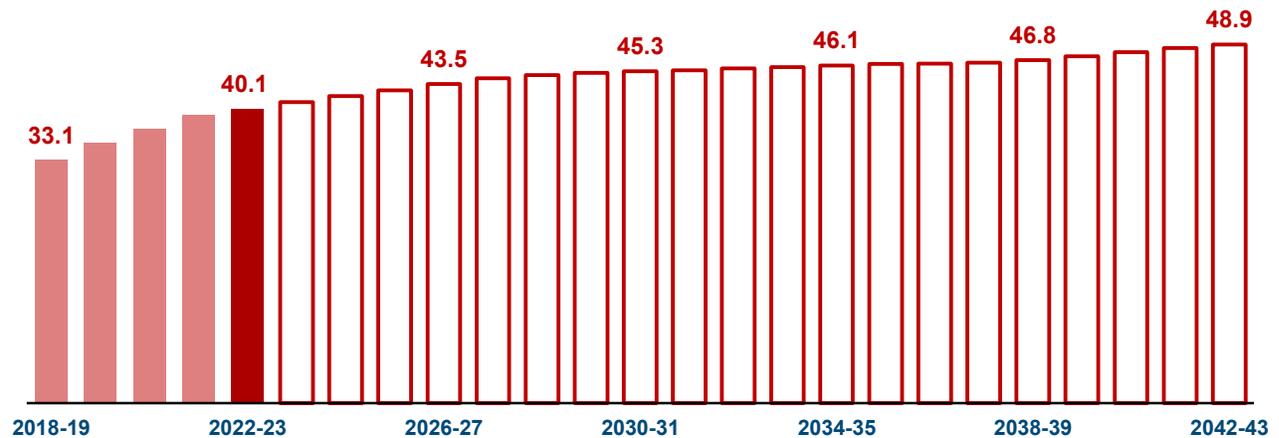
Section I - Executive Summary Assets (continued)

The graph below shows how this year's asset values compare to where the plan's assets have been over the past several years and how they are projected to change over the next 20 years. For purposes of this projection, we have assumed that the Town always contributes the Actuarially Determined Contribution, the investments always earn the assumed interest rate each year, and plan experience matches what is anticipated by the assumptions. Please note that the substantial increase in the assets as of July 1, 2021 is attributable to the Pension Obligation Bond (POB) issued by the Town.



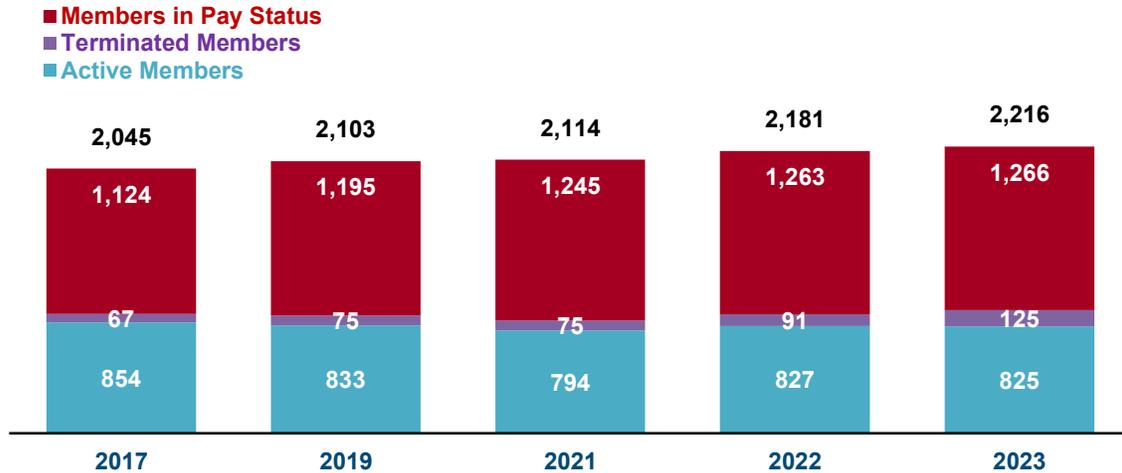
In 2022-23, the plan paid out \$40.1 million in benefits to members. Over the next 20 years, the plan is projected to pay out a total of \$910 million in benefits to members.

Benefit Payments (\$ millions)



Section I - Executive Summary Membership

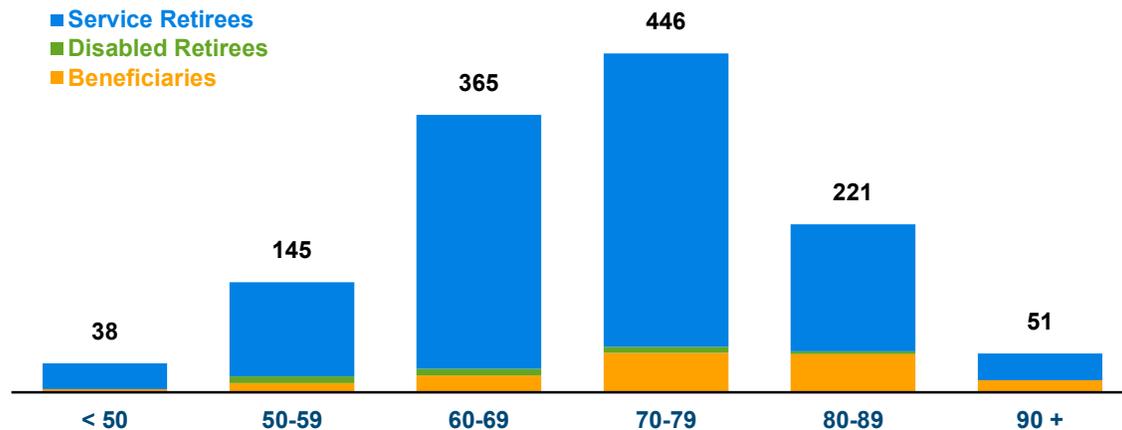
Prior to 2021, full valuations, where complete membership data is collected and analyzed, were performed only in odd-numbered years, so membership data in 2018 and 2020 is not available. There are three basic categories of plan members included in the valuation: (1) members who are receiving monthly pension benefits, (2) former employees who have a vested right to benefits but have not yet started collecting, and (3) active employees who have met the eligibility requirements for membership.



Members in Pay Status on July 1, 2023

Service Retirees	1,080	Average Age	71.4
Disabled Retirees	30	Total Annual Benefit	\$40,301,198
Beneficiaries	156	Average Annual Benefit	31,833
Total	1,266		

The members in pay status fall across a wide distribution of ages:



Section I - Executive Summary Membership (continued)

Terminated Vested Members on July 1, 2023

Count	61
Average Age	50.3
Total Annual Benefit	\$680,612
Average Annual Benefit	11,158

Nonvested Members Due Refunds on July 1, 2023

Count	64
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Active Members on July 1, 2023

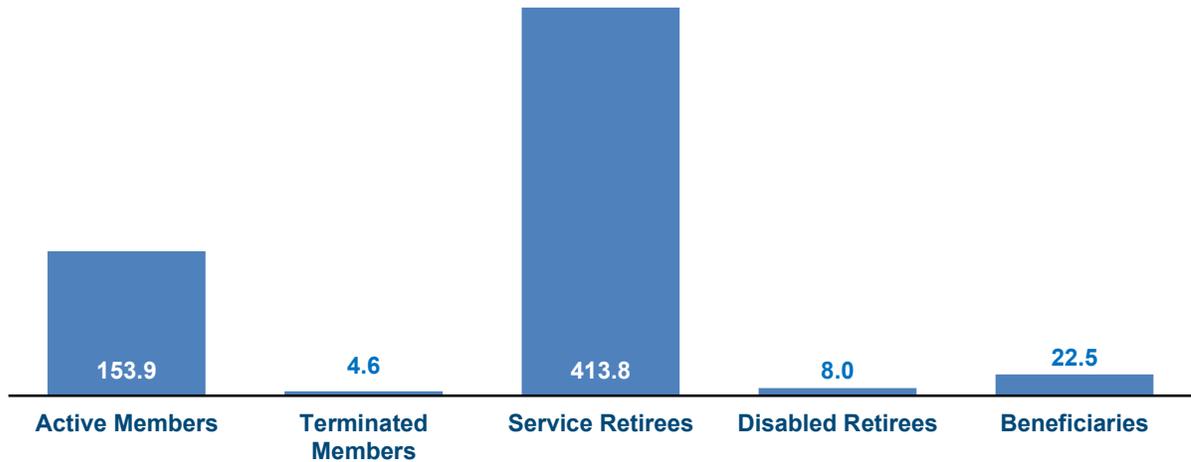
Count	825
Average Age	46.4
Average Service	10.0
Payroll	\$71,803,623
Average Payroll	87,035

The table below illustrates the age and years of service of the active membership:

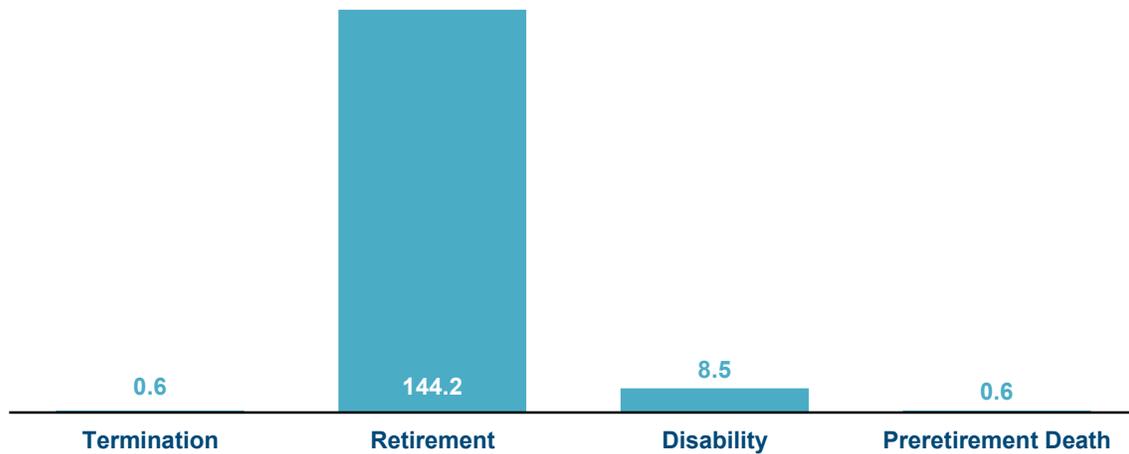
Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	29							29
25-29	69	12						81
30-34	48	30	8					86
35-39	36	28	33	10				107
40-44	42	13	11	22	5			93
45-49	23	13	10	11	14	2		73
50-54	27	19	14	16	19	4	4	103
55-59	23	18	14	12	18	9	1	95
60-64	30	19	11	12	20	8	2	102
65+	6	7	5	15	12	3	8	56
Total	333	159	106	98	88	26	15	825

Section I - Executive Summary Accrued Liability

The Accrued Liability as of July 1, 2023 is \$602,838,769, which consists of the following pieces (in \$ millions):



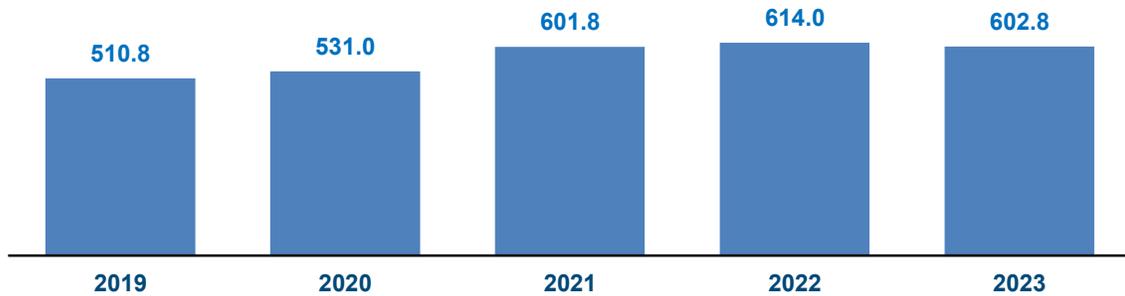
The Accrued Liability for active members can be broken down further by the different types of benefits provided by the plan:



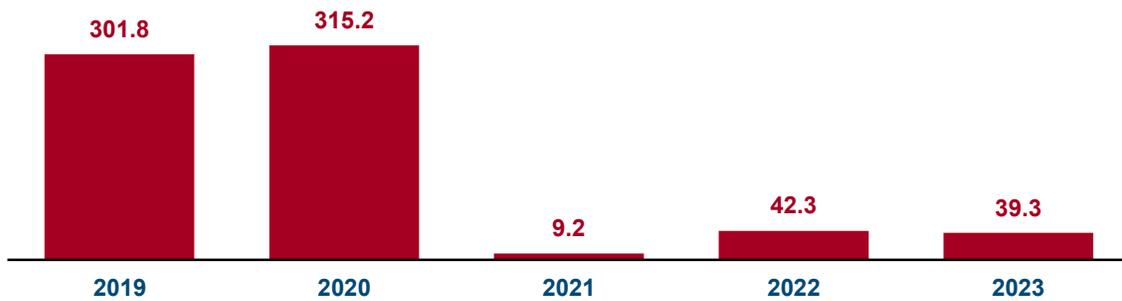
Section I - Executive Summary Funded Status

The Accrued Liability grows over time as active members earn additional benefits, and goes down over time as members receive benefits; it may also change when there are changes to the plan provisions or changes in the actuarial assumptions. The Unfunded Accrued Liability is the dollar difference between the Accrued Liability and the Actuarial Value of Assets; the Funded Ratio is the ratio of the two.

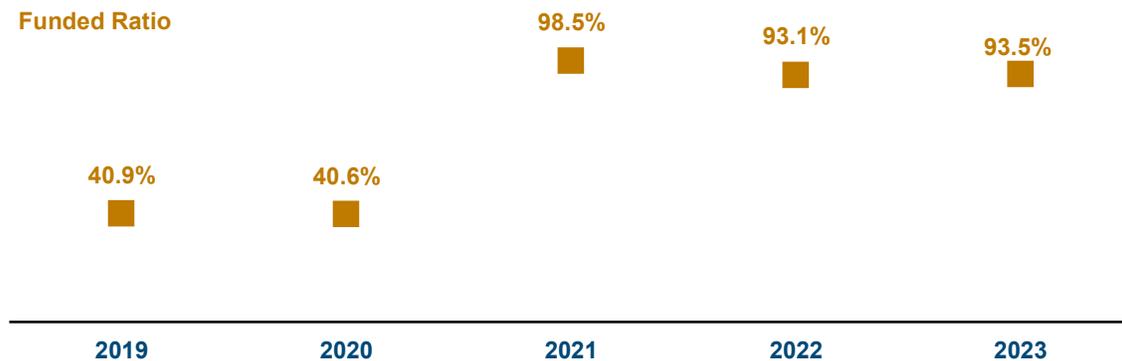
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)

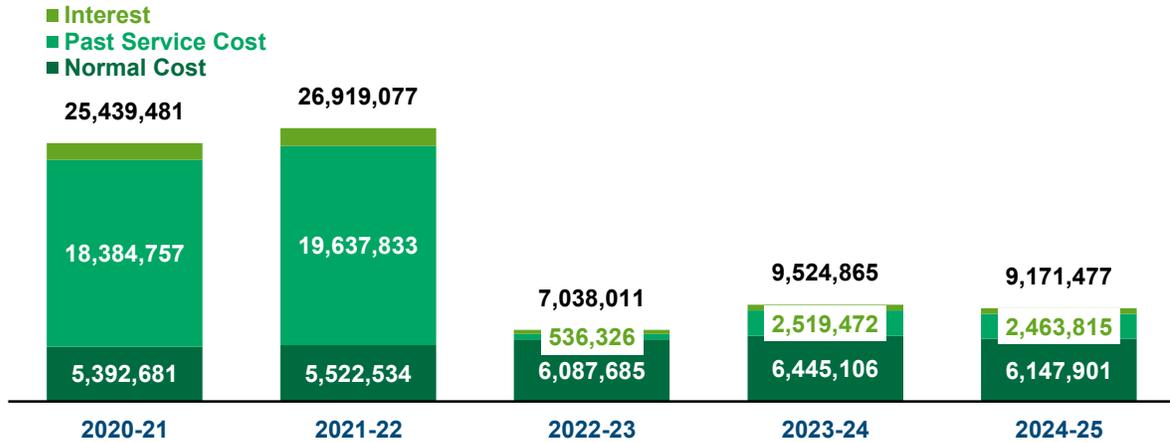


Funded Ratio



Section I - Executive Summary Actuarially Determined Contribution (ADC)

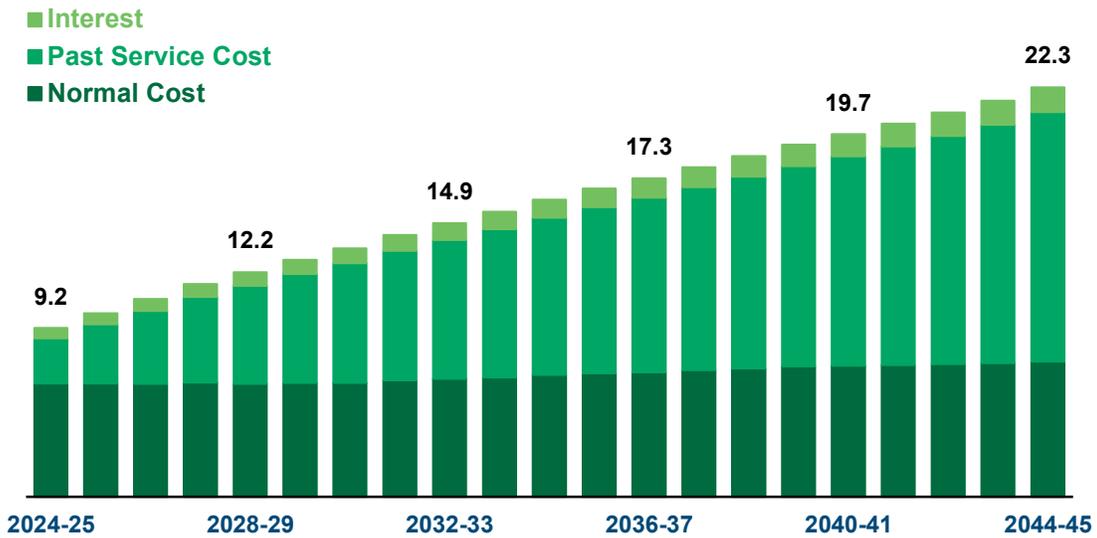
The ADC consists of three pieces: a Normal Cost payment to fund the benefits earned each year, a Past Service Cost to gradually reduce any unfunded or surplus liability, and Interest to reflect the timing of the contribution relative to the valuation date. In addition to paying the Actuarially Determined Contribution, starting with FYE 2023, the Town must pay debt service on the Pension Obligation Bond. The ADC for fiscal year 2024-25 is \$9,171,477:



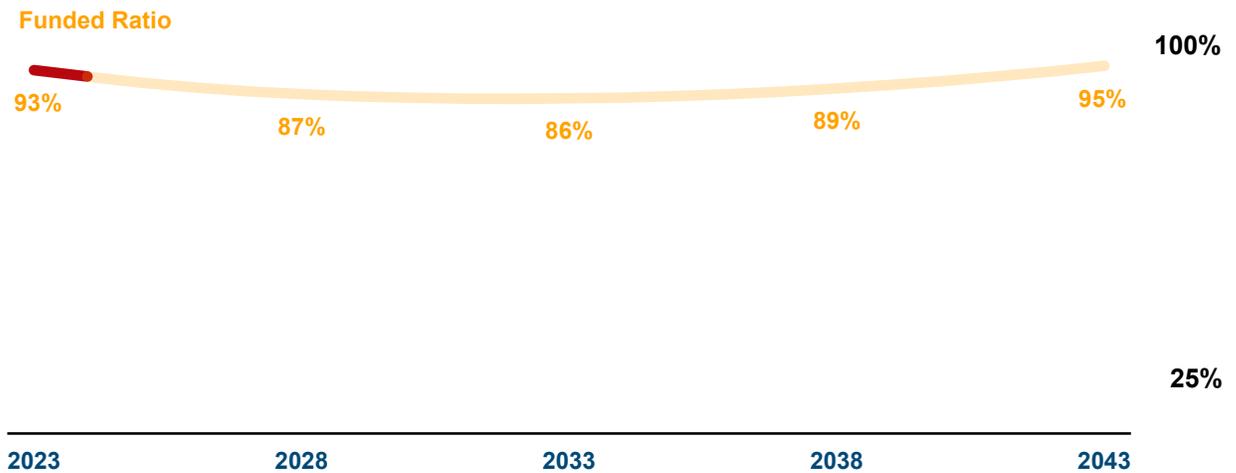
Actuarial Standard of Practice (ASOP) No. 4 requires the actuary to calculate and disclose a 'reasonable' ADC, which considers whether the actuarial methods and actuarial assumptions are in compliance with all applicable ASOPs. Based on the actuarial assumptions and methods used in this report, we believe the ADC is reasonable in accordance with ASOP 4 and reflects a balance among benefit security for plan members, intergenerational equity among stakeholders, and stability of periodic costs.

Section I - Executive Summary Long-Range Forecast

If the Town pays the Actuarially Determined Contribution each year, the investments earn exactly the assumed interest rate each year, and there are no changes in the plan provisions or in the actuarial methods and assumptions, then we project the following long-range Actuarially Determined Contributions (in \$ millions):



On the basis of this forecast, the Actuarially Determined Contribution currently exceeds the sum of the Normal Cost plus one year's interest on the Unfunded Accrued Liability and the Unfunded Accrued Liability is not expected to be fully amortized until beyond the end of the projection period. Over time, the funded ratio is expected to change as follows:

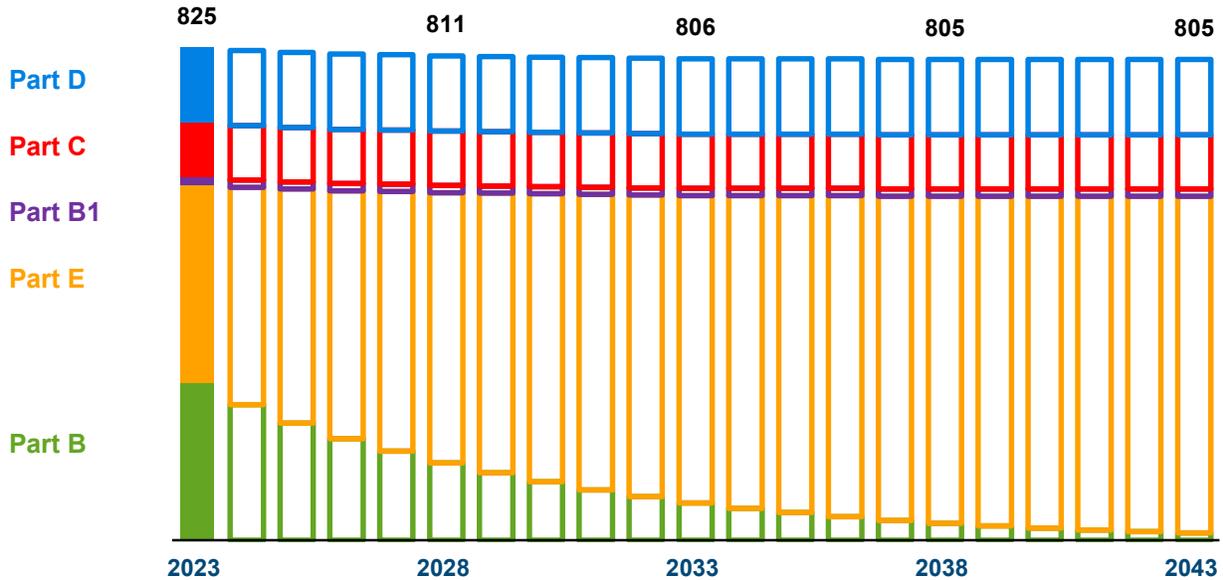


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Section III E for more details of the long range forecast.

Section I - Executive Summary Long-Range Forecast

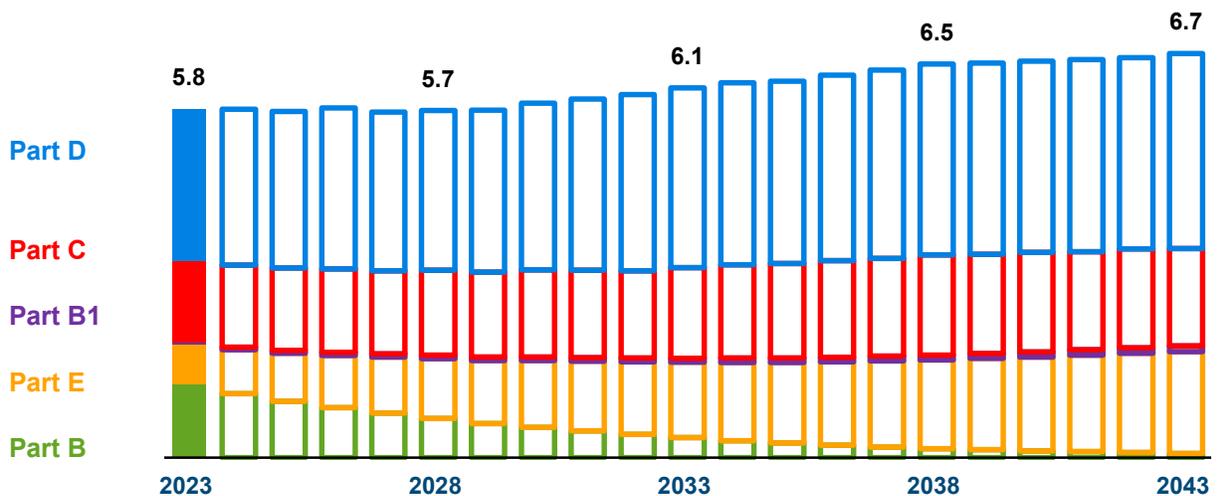
The Town's projected active member counts reflect the expected gradual replacement of terminating and retiring Part B members with replacement employees who are covered by the lower cost hybrid plan (Part E) or by the Town's defined contribution plan. This shift is illustrated in the graph below.

Projected Active Member Count



The Net Normal Cost component of the Actuarially Determined Contribution will likewise reflect this shift, as Part B active members with higher Net Normal Costs are gradually replaced by Part E active members with lower Net Normal Costs. Note that each individual active member's Net Normal Cost is expected to go up over time with salary growth, so for the plan as a whole the Net Normal Cost is projected to increase over time.

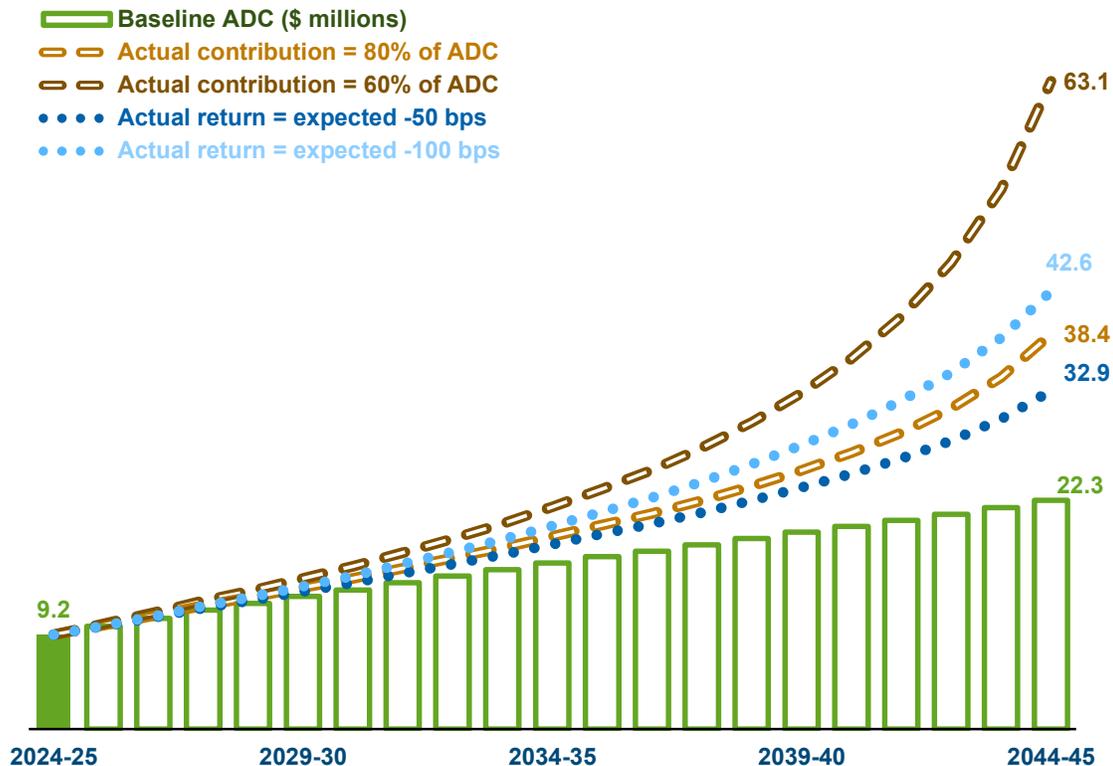
Projected Net Normal Cost (\$ millions)*



*excluding administrative expenses

Section I - Executive Summary Long-Range Forecast (continued)

Pension benefits are paid for through a combination of contributions from the Town and from employees, and from investment income. If the Town pays less than the Actuarially Determined Contribution each year, or if the investments persistently earn less than the assumed interest rate, then the plan's funded status would suffer, and to compensate, the Town's contribution levels would be pushed higher. The risks of underfunding and underearning are illustrated in the hypothetical scenarios below:



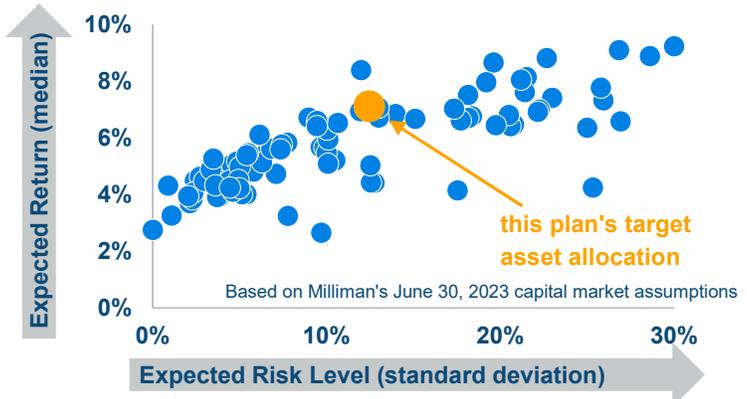
The scenarios illustrated above are based on deterministic projections that assume emerging plan experience always exactly matches the actuarial assumptions except for the return scenarios noted above; in particular that actual asset returns will be constant in every year of the projection period. Underfunding and underearning with both result in actuarial losses. For illustration purposes, we have amortized these losses over the remaining amortization period, even if that period is less than 10 years. Variation in asset returns, contribution amounts, and many other factors may have a significant impact on the long-term financial health of the plan, the liquidity constraints on plan assets, and the Town's future contribution levels. Stochastic projections could be prepared that would enable the Town to understand the potential range of future results based on the expected variability in asset returns and other factors. Such analysis was beyond the scope of this engagement.

Section I - Executive Summary Asset Allocation

Monies that flow out of a pension plan (benefits and expenses) must be matched over the long term by monies that flow into the plan (contributions and investment income). This is expressed in a classic equation: **B** (benefits) + **E** (expenses) = **C** (contributions) + **I** (investment income).

Actuarial assumptions enable us to anticipate the long-term levels of **B** (benefits) and **E** (expenses) that will be paid out of the plan. In order to determine the appropriate level of **C** (contributions) that should come in to the plan, we must first anticipate the long-term level of **I** (investment income) the plan is likely to receive. That is why, for purposes of calculating the Actuarially Determined Contribution, we measure this plan's liability using the long-term rate of investment returns this plan's portfolio is expected to generate.

Pension plans construct their portfolios by allocating assets across a wide range of asset classes with different risk and return profiles; the graph includes nearly 100 asset classes that pension plans invest in. As the graph illustrates, asset classes with higher expected returns also have higher risk levels; that is, a higher likelihood of experiencing both very good returns and very bad returns. Asset classes with lower expected returns also have lower risk levels.



The plan's target allocation represents a balance. Investing in lower-returning asset classes should reduce future investment returns and therefore increase future Town contributions, but the lower risk levels would result in lower year-over-year volatility in the Actuarially Determined Contribution and might provide more benefit security for plan members. Conversely, investing in higher-returning asset classes should increase future investment returns and therefore reduce future Town contributions, but would also increase the volatility of those contributions and potentially reduce benefit security for plan members.

In the graph above, the asset class with the lowest risk level is US Cash, and the asset class with the highest risk level is Private Equity. If the plan were invested 100% in either of these extremes, it would impact the interest rate assumption and therefore the Accrued Liability, Funded Ratio, and ultimately the Town's annual contributions; the volatility of the contributions would also change based on the risk level of the portfolio:

	100% US Cash *	Plan's Interest Rate Assumption	100% Private Equity
Expected long-term return (median)	3.3%	6.50%	9.2%
Expected risk level (standard deviation)	1.1%	12.5%	30.0%
Accrued Liability on July 1, 2023 **	\$835.5 million	\$602.8 million	\$457.9 million
Funded Ratio on July 1, 2023 ***	67%	93%	123%

* This would be considered a "low-default-risk obligation measure" (LDRM) using the language of ASOP 4.

** Calculated using the same actuarial assumptions and methods that were used for this valuation, except for the interest rate; the plan's duration on the valuation date, as measured for GASB 68 purposes, was used to estimate the impact of the interest rate difference relative to the valuation interest rate assumption.

*** Measured using the Actuarial Value of Assets

Section I - Executive Summary Summary of Principal Results

Membership as of	July 1, 2022	July 1, 2023
Active Members	827	825
Terminated Members	91	125
Members in Pay Status	<u>1,263</u>	<u>1,266</u>
Total Count	2,181	2,216
 Payroll	 68,559,935	 71,803,623
Assets and Liabilities as of	July 1, 2022	July 1, 2023
Market Value of Assets	\$489,126,046	\$511,404,408
Actuarial Value of Assets	571,724,493	563,547,294
 Accrued Liability for Active Members	 156,200,630	 153,922,057
Accrued Liability for Terminated Members	4,370,109	4,642,612
Accrued Liability for Members in Pay Status	<u>453,405,125</u>	<u>444,274,100</u>
Total Accrued Liability	613,975,864	602,838,769
 Unfunded Accrued Liability	 42,251,371	 39,291,475
 Funded Ratio	 93.1%	 93.5%
Actuarially Determined Contribution for Fiscal Year	2023-24	2024-25
Normal Cost	\$6,445,106	\$6,147,901
Past Service Cost	2,519,472	2,463,815
Interest	<u>560,287</u>	<u>559,761</u>
Actuarially Determined Contribution	9,524,865	9,171,477
 Allocated to BOE	 1,889,132	 1,674,082
Allocated to Town	7,635,733	7,497,395
 POB Debt Service Payment	 17,657,415	 17,658,777
 Total Town Pension Cost	 27,182,280	 26,830,254

Section II - Plan Assets

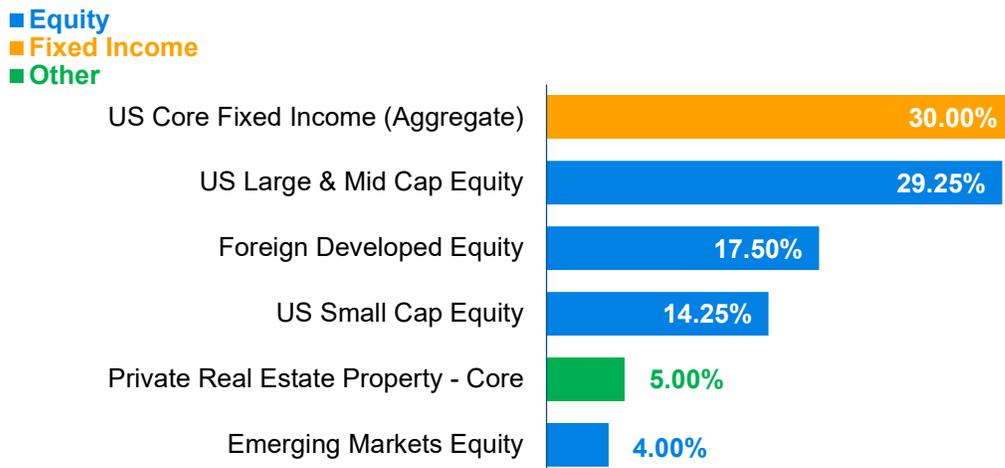
A. Summary of Fund Transactions

Market Value of Pension Trust as of July 1, 2022	\$489,126,046
Town Contributions	7,038,012
Member Contributions	3,537,883
Net Investment Income *	52,217,036
Benefit Payments	(40,136,294)
Administrative Expenses	<u>(378,275)</u>
Market Value of Pension Trust as of June 30, 2023	511,404,408
Approximate Rate of Return on Pension Trust **	11.01%
Expected Return on Market Value of Pension Trust	29,641,823
Market Value (Gain)/Loss = Expected Return - Net Investment Income	(22,575,213)
 Market Value of Pension Reserve Fund as of July 1, 2022	 \$26,496,551
Net Investment Income	965,813
Town Contributions	0
Transfers to Pension Trust	<u>0</u>
Market Value of Pension Reserve Fund as of June 30, 2023	27,462,364
Approximate Rate of Return on Pension Reserve Fund **	3.65%

* Gross investment return of \$52,677,042 less investment expenses of \$460,006

** The rate shown here is not the dollar or time weighted investment yield rate which measures investment performance. It is an approximate net return assuming all activity occurred on average midway through the fiscal year.

Target Asset Allocation of Pension Trust as of June 30, 2023



Section II - Plan Assets

B. Development of Actuarial Value of Assets

In order to minimize the impact of market fluctuations on the contribution level, the Town's funding policy includes use of an Actuarial Value of Assets that recognizes gains and losses asymptotically over a five year period. The Actuarial Value of Assets as of July 1, 2023 is determined below.

1.	Expected Actuarial Value of Assets:	
	a. Actuarial Value of Assets as of July 1, 2022	\$571,724,493
	b. Town and Member Contributions	10,575,895
	c. Benefit Payments and Administrative Expenses	(40,514,569)
	d. Expected Earnings Based on 6.25% Interest	<u>34,797,197</u>
	e. Expected Actuarial Value of Assets as of July 1, 2023	576,583,016
2.	Market Value of Assets as of July 1, 2023	511,404,408
3.	Unrecognized Gains/(Losses): (2) - (1e)	(65,178,608)
4.	Amount Recognized as of July 1, 2023: 20% of (3)	(13,035,722)
5.	Actuarial Value of Assets as of July 1, 2023: (1e) + (4)	563,547,294
6.	Actuarial Value of Assets as a % of Market Value: (5) / (2)	110.2%
7.	Actual Earnings on Actuarial Value of Assets: (5) - [(1a) + (1b) + (1c)]	21,761,475
8.	Approximate Rate of Return on Actuarial Value of Assets	3.91%
9.	Actuarial Value (Gain)/Loss: (1d) - (7)	13,035,722

Section III - Development of Contribution

A. Past Service Cost

In determining the Past Service Cost, the Unfunded Accrued Liability is amortized as a level percent over a closed 25 year period starting on July 1, 2021.

	Part A	Part B	Part B1	Part C	Part D	Part E	Total
1. Accrued Liability							
Active Members	\$0	\$73,592,039	\$1,662,985	\$27,911,282	\$44,800,779	\$5,954,972	\$153,922,057
Terminated Members	0	3,470,570	232,301	306,263	335,304	298,174	4,642,612
Service Retirees	489,322	185,320,269	1,857,263	94,516,406	131,328,560	261,242	413,773,062
Disabled Retirees	0	3,594,294	0	3,165,004	1,282,742	0	8,042,040
Beneficiaries	<u>470,691</u>	<u>6,463,055</u>	<u>0</u>	<u>6,440,303</u>	<u>9,084,949</u>	<u>0</u>	<u>22,458,998</u>
Total Accrued Liability	960,013	272,440,227	3,752,549	132,339,258	186,832,334	6,514,388	602,838,769
2. Actuarial Value of Assets (see Section IIB - allocated in proportion to Total Accrued Liability)	897,442	254,683,275	3,507,968	123,713,727	174,655,085	6,089,797	563,547,294
3. Unfunded Accrued Liability: (1) - (2)	62,571	17,756,952	244,581	8,625,531	12,177,249	424,591	39,291,475
4. Funded Ratio: (2) / (1)	93.5%	93.5%	93.5%	93.5%	93.5%	93.5%	93.5%
5. Amortization Period	23	23	23	23	23	23	23
6. Amortization Growth Rate	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%
7. Past Service Cost: (3) amortized over (5)	3,924	1,113,469	15,337	540,873	763,588	26,624	2,463,815

Section III - Development of Contribution

B. Actuarial Gains / (Losses)

From one valuation to the next, the Accrued Liability and Actuarial Value of Assets may change in ways that were not anticipated by the actuarial assumptions that were used in the last valuation. If the Accrued Liability is lower than expected or the Actuarial Value of Assets is higher than expected, we say that the plan has experienced an 'actuarial gain', and if the Accrued Liability is higher than expected or the Actuarial Value of Assets is lower than expected, we say that the plan has experienced an 'actuarial loss'. The actuarial gains / (losses) that arose during 2022-23 are shown below, along with the impact of plan changes and changes in the actuarial assumptions and method. Please see page 3 for more details on any changes since the last valuation.

	Accrued Liability A	Actuarial Value of Assets B	Unfunded Accrued Liability = A - B
1. Value as of July 1, 2022	\$613,975,864	\$571,724,493	\$42,251,371
2. Normal Cost as of July 1, 2022	9,309,296		9,309,296
3. Town Contributions during 2022-23		7,038,012	(7,038,012)
4. Employee Contributions during 2022-23		3,537,883	(3,537,883)
5. Benefit Payments during 2022-23	(40,136,294)	(40,136,294)	0
6. Administrative Expenses during 2022-23		(378,275)	378,275
7. One year of interest on (1) thru (2) at 6.25%	38,955,323	35,732,781	3,222,542
8. Half year of interest on (3) thru (6) at 6.25%	<u>(1,254,259)</u>	<u>(935,584)</u>	<u>(318,675)</u>
9. Expected value as of July 1, 2023	620,849,930	576,583,016	44,266,914
10. Actual value as of July 1, 2023 before any plan, assumption, or method changes	618,007,276	563,547,294	54,459,982
11. Experience gains / losses: (10) - (9)	(2,842,654)	(13,035,722)	10,193,068
12. Impact of plan changes (see page 3)	79	0	79
13. Impact of assumption changes (see page 3)	(15,168,586)	0	(15,168,586)
14. Impact of method changes (see page 3)	0	0	0
15. Final value as of July 1, 2023	602,838,769	563,547,294	39,291,475

Section III - Development of Contribution

C. Actuarially Determined Contribution for FY 2024-25

	Part A	Part B	Part B1	Part C	Part D	Part E	Total
1. Total Normal Cost	\$0	\$2,290,180	\$108,828	\$2,165,713	\$3,344,501	\$1,216,392	\$9,125,614
2. Expected Member Contributions	0	1,069,946	67,181	819,916	844,609	565,061	3,366,713
3. Expected Administrative Expenses (allocated in proportion to Total Normal Cost)	0	97,624	4,639	92,318	142,567	51,852	389,000
4. Net Normal Cost: (1) - (2) + (3)	0	1,317,858	46,286	1,438,115	2,642,459	703,183	6,147,901
5. Past Service Cost (see Section IIIA)	3,924	1,113,469	15,337	540,873	763,588	26,624	2,463,815
6. Interest on (4) + (5) to beginning of fiscal year	255	158,036	4,005	128,634	221,393	47,438	559,761
7. Actuarially Determined Contribution (ADC) for FY 2024-25: (4) + (5) + (6)	4,179	2,589,363	65,628	2,107,622	3,627,440	777,245	9,171,477
8. Maximum Payable from Operating Budget for FY 2024-25: Amount Paid from Operating Budget for FY 2023-24 (\$7,389,912) increased by 8%							7,981,105
9. Portion of ADC To Be Paid by Operating Budget for FY 2024-25: smaller of (7) and (8)							7,981,105
10. Portion of ADC To Be Paid by Pension Reserve Fund for FY 2024-25: (7) - (9)							1,190,372

Section III - Development of Contribution
D. Breakdown by Town / BOE

	BOE	Town	Total
1. Total Normal Cost	\$1,813,191	\$7,312,423	\$9,125,614
2. Expected Member Contributions	836,086	2,530,627	3,366,713
3. Expected Administrative Expenses	77,291	311,709	389,000
4. Net Normal Cost: (1) - (2) + (3)	1,054,396	5,093,505	6,147,901
5. Accrued Liability	126,623,357	476,215,412	602,838,769
6. Actuarial Value of Assets	118,370,373	445,176,921	563,547,294
7. Unfunded Accrued Liability	8,252,984	31,038,491	39,291,475
8. Past Service Cost	517,512	1,946,303	2,463,815
9. Interest on (4) + (8) to the start of the fiscal year	102,174	457,587	559,761
10. Actuarially Determined Contribution: (4) + (8) + (9)	1,674,082	7,497,395	9,171,477

Section III - Development of Contribution

E. Long Range Forecast of Funded Status

This forecast assumes that (1) in each future year the Town will pay the Actuarially Determined Contribution and the Market Value of Assets will return the assumed interest rate, and (2) there are no future changes in the actuarial methods, assumptions, or plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

Valuation Date	Accrued Liability	Market Value of Assets	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
07/01/2023	\$602,838,769	\$511,404,408	\$563,547,294	\$39,291,475	93.5%
07/01/2024	609,499,000	515,257,000	559,682,000	49,816,000	91.8%
07/01/2025	615,667,000	518,163,000	556,014,000	59,653,000	90.3%
07/01/2026	621,358,000	521,246,000	553,494,000	67,864,000	89.1%
07/01/2027	626,587,000	524,436,000	551,912,000	74,675,000	88.1%
07/01/2028	631,277,000	527,855,000	551,265,000	80,012,000	87.3%
07/01/2029	635,904,000	531,771,000	551,716,000	84,189,000	86.8%
07/01/2030	640,529,000	536,325,000	553,318,000	87,212,000	86.4%
07/01/2031	645,414,000	541,653,000	556,131,000	89,283,000	86.2%
07/01/2032	650,600,000	547,966,000	560,301,000	90,299,000	86.1%
07/01/2033	656,009,000	555,097,000	565,607,000	90,403,000	86.2%
07/01/2034	661,774,000	563,203,000	572,157,000	89,617,000	86.5%
07/01/2035	667,863,000	572,314,000	579,943,000	87,919,000	86.8%
07/01/2036	674,180,000	582,478,000	588,978,000	85,202,000	87.4%
07/01/2037	681,050,000	593,858,000	599,396,000	81,654,000	88.0%
07/01/2038	688,421,000	606,553,000	611,271,000	77,150,000	88.8%
07/01/2039	696,162,000	620,333,000	624,353,000	71,809,000	89.7%
07/01/2040	703,927,000	635,167,000	638,592,000	65,335,000	90.7%
07/01/2041	711,749,000	650,982,000	653,900,000	57,849,000	91.9%
07/01/2042	719,532,000	667,851,000	670,337,000	49,194,000	93.2%
07/01/2043	727,410,000	686,004,000	688,122,000	39,288,000	94.6%
07/01/2044	735,493,000	705,584,000	707,389,000	28,104,000	96.2%
07/01/2045	743,870,000	726,816,000	728,354,000	15,516,000	97.9%
07/01/2046	752,446,000	749,807,000	751,117,000	1,329,000	99.8%
07/01/2047	761,002,000	775,190,000	776,306,000	(15,304,000)	102.0%
07/01/2048	769,919,000	786,204,000	787,155,000	(17,236,000)	102.2%
07/01/2049	778,733,000	795,815,000	796,625,000	(17,892,000)	102.3%
07/01/2050	787,464,000	805,539,000	806,230,000	(18,765,000)	102.4%
07/01/2051	796,608,000	815,712,000	816,300,000	(19,692,000)	102.5%
07/01/2052	806,422,000	826,651,000	827,152,000	(20,730,000)	102.6%

Section III - Development of Contribution

F. Long Range Forecast of Pension Trust Cash Flows

For purposes of this forecast the amortization period declines to 1 year to illustrate the progress of the plan towards becoming fully funded; in actual practice the amortization period will not be less than 10 years in order to shield the Town from contribution volatility.

Fiscal Year	Town Payments From Operating Budget and Reserve Fund	Active Member Contributions	Benefit Payments	Administrative Expenses	Net Cash Flows
2024-25	\$9,171,477	\$3,477,431	(\$41,872,089)	(\$399,367)	(\$29,622,548)
2025-26	9,970,000	3,490,000	(42,685,000)	(410,000)	(29,635,000)
2026-27	10,750,000	3,484,000	(43,537,000)	(422,000)	(29,725,000)
2027-28	11,567,000	3,497,000	(44,335,000)	(433,000)	(29,704,000)
2028-29	12,204,000	3,544,000	(44,741,000)	(445,000)	(29,438,000)
2029-30	12,885,000	3,577,000	(45,071,000)	(457,000)	(29,066,000)
2030-31	13,509,000	3,630,000	(45,273,000)	(470,000)	(28,604,000)
2031-32	14,224,000	3,670,000	(45,396,000)	(483,000)	(27,985,000)
2032-33	14,867,000	3,697,000	(45,658,000)	(496,000)	(27,590,000)
2033-34	15,487,000	3,770,000	(45,843,000)	(510,000)	(27,096,000)
2034-35	16,142,000	3,822,000	(46,072,000)	(524,000)	(26,632,000)
2035-36	16,758,000	3,877,000	(46,283,000)	(538,000)	(26,186,000)
2036-37	17,306,000	3,942,000	(46,342,000)	(553,000)	(25,647,000)
2037-38	17,919,000	4,009,000	(46,449,000)	(568,000)	(25,089,000)
2038-39	18,519,000	4,037,000	(46,811,000)	(584,000)	(24,839,000)
2039-40	19,141,000	4,082,000	(47,308,000)	(600,000)	(24,685,000)
2040-41	19,707,000	4,114,000	(47,873,000)	(616,000)	(24,668,000)
2041-42	20,284,000	4,150,000	(48,445,000)	(633,000)	(24,644,000)
2042-43	20,889,000	4,205,000	(48,906,000)	(651,000)	(24,463,000)
2043-44	21,531,000	4,265,000	(49,351,000)	(669,000)	(24,224,000)
2044-45	22,264,000	4,331,000	(49,765,000)	(687,000)	(23,857,000)
2045-46	23,166,000	4,391,000	(50,339,000)	(706,000)	(23,488,000)
2046-47	24,614,000	4,460,000	(50,968,000)	(725,000)	(22,619,000)
2047-48	9,580,000	4,524,000	(51,493,000)	(745,000)	(38,134,000)
2048-49	8,368,000	4,593,000	(52,382,000)	(766,000)	(40,187,000)
2049-50	8,543,000	4,687,000	(53,125,000)	(787,000)	(40,682,000)
2050-51	8,658,000	4,805,000	(53,514,000)	(809,000)	(40,860,000)
2051-52	8,856,000	4,936,000	(53,718,000)	(831,000)	(40,757,000)
2052-53	9,074,000	5,063,000	(53,882,000)	(854,000)	(40,599,000)

Section III - Development of Contribution

G. Long Range Forecast of Pension Reserve Fund Balance

The Town's Pension Reserve Fund was established in 2021, coincident with the issuance of Pension Obligation Bonds, to provide budgetary stability in times of market turmoil. See the following page for more details on the Town's policy for drawing from and replenishing the Pension Reserve Fund. For purposes of this forecast the Pension Reserve Fund is assumed to earn 2.93% annually.

Fiscal Year	Beginning Reserve Fund Balance	Transfers In From Operating Budget	Transfers Out To Pension Trust	Net Investment Income	Ending Reserve Fund Balance
2023-24	\$27,462,364	\$0	(\$2,134,953)	\$742,000	\$26,070,000
2024-25	26,070,000	0	(1,190,000)	729,000	25,608,000
2025-26	25,608,000	0	(1,351,000)	711,000	24,968,000
2026-27	24,968,000	0	(1,441,000)	689,000	24,217,000
2027-28	24,217,000	0	(1,513,000)	665,000	23,369,000
2028-29	23,369,000	0	(1,345,000)	645,000	22,669,000
2029-30	22,669,000	0	(1,158,000)	630,000	22,141,000
2030-31	22,141,000	0	(844,000)	624,000	21,920,000
2031-32	21,920,000	0	(546,000)	626,000	22,001,000
2032-33	22,001,000	0	(95,000)	642,000	22,548,000
2033-34	22,548,000	0	0	661,000	23,208,000
2034-35	23,208,000	0	0	680,000	23,888,000
2035-36	23,888,000	0	0	700,000	24,588,000
2036-37	24,588,000	0	0	720,000	25,309,000
2037-38	25,309,000	0	0	742,000	26,050,000
2038-39	26,050,000	0	0	763,000	26,814,000
2039-40	26,814,000	0	0	786,000	27,599,000
2040-41	27,599,000	0	0	809,000	28,408,000
2041-42	28,408,000	0	0	832,000	29,240,000
2042-43	29,240,000	0	0	857,000	30,097,000
2043-44	30,097,000	0	0	882,000	30,979,000
2044-45	30,979,000	0	0	908,000	31,887,000
2045-46	31,887,000	0	0	934,000	32,821,000
2046-47	32,821,000	0	0	962,000	33,782,000
2047-48	33,782,000	15,034,000	0	1,430,000	50,247,000
2048-49	50,247,000	1,211,000	0	1,508,000	52,966,000
2049-50	52,966,000	0	0	1,552,000	54,518,000
2050-51	54,518,000	0	0	1,597,000	56,115,000
2051-52	56,115,000	0	0	1,644,000	57,760,000

Section III - Development of Contribution

H. Long Range Forecast of Total Town Pension Cost

The annual amount transferred from the Town's Operating Budget to the Pension Trust is capped at the prior year's amount increased by 8%; any additional funds needed to fully fund the ADC will be paid from the Pension Reserve Fund. If the Operating Budget amount declines from the prior year and the Plan's funded ratio is less than 150%, the difference in the Operating Budget amount will be transferred into the Reserve Fund as a replenishment.

Fiscal Year	Actuarially Determined Contribution (ADC)	ADC Paid From Operating Budget	ADC Paid From Reserve Fund	POB Debt Service	Total Town Cost
2024-25	\$9,171,477	\$7,981,105	\$1,190,372	\$17,658,777	\$26,830,254
2025-26	9,970,000	8,620,000	1,351,000	17,660,000	27,630,000
2026-27	10,750,000	9,309,000	1,441,000	17,660,000	28,410,000
2027-28	11,567,000	10,054,000	1,513,000	17,662,000	29,229,000
2028-29	12,204,000	10,858,000	1,345,000	17,660,000	29,864,000
2029-30	12,885,000	11,727,000	1,158,000	17,662,000	30,547,000
2030-31	13,509,000	12,665,000	844,000	17,661,000	31,170,000
2031-32	14,224,000	13,678,000	546,000	17,661,000	31,885,000
2032-33	14,867,000	14,772,000	95,000	17,657,000	32,524,000
2033-34	15,487,000	15,487,000	0	17,658,000	33,145,000
2034-35	16,142,000	16,142,000	0	17,660,000	33,802,000
2035-36	16,758,000	16,758,000	0	17,657,000	34,415,000
2036-37	17,306,000	17,306,000	0	17,658,000	34,964,000
2037-38	17,919,000	17,919,000	0	17,660,000	35,579,000
2038-39	18,519,000	18,519,000	0	17,661,000	36,180,000
2039-40	19,141,000	19,141,000	0	17,662,000	36,803,000
2040-41	19,707,000	19,707,000	0	17,661,000	37,368,000
2041-42	20,284,000	20,284,000	0	17,660,000	37,944,000
2042-43	20,889,000	20,889,000	0	17,659,000	38,548,000
2043-44	21,531,000	21,531,000	0	17,658,000	39,189,000
2044-45	22,264,000	22,264,000	0	17,659,000	39,923,000
2045-46	23,166,000	23,166,000	0	0	23,166,000
2046-47	24,614,000	24,614,000	0	0	24,614,000
2047-48	9,580,000	9,580,000	0	0	9,580,000
2048-49	8,368,000	8,368,000	0	0	8,368,000
2049-50	8,543,000	8,543,000	0	0	8,543,000
2050-51	8,658,000	8,658,000	0	0	8,658,000
2051-52	8,856,000	8,856,000	0	0	8,856,000
2052-53	9,074,000	9,074,000	0	0	9,074,000

Section III - Development of Contribution

I. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
July 1, 2015	\$173,140,717	\$403,746,402	\$230,605,685	42.9%
July 1, 2016	179,642,266	414,533,071	234,890,805	43.3%
July 1, 2017	189,993,169	452,993,244	263,000,075	41.9%
July 1, 2018	200,503,878	469,050,740	268,546,862	42.7%
July 1, 2019	209,053,093	510,843,434	301,790,341	40.9%
July 1, 2020	215,752,896	530,966,866	315,213,970	40.6%
July 1, 2021	592,613,081	601,847,298	9,234,217	98.5%
July 1, 2022	571,724,493	613,975,864	42,251,371	93.1%
July 1, 2023	563,547,294	602,838,769	39,291,475	93.5%

Section III - Development of Contribution

J. History of Town Contributions

Fiscal Year	Actuarially Determined Contribution	Actual Town Contribution	Payroll	Actual Contribution as a Percent of Payroll
2016-17	\$20,551,457	\$20,551,457	\$56,648,623	36.3%
2017-18	21,615,393	21,615,393	58,064,839	37.2%
2018-19	23,880,013	23,880,000	58,707,946	40.7%
2019-20	25,231,540	25,231,002	60,175,645	41.9%
2020-21*	25,439,481	348,339,484	63,885,033	545.3%
2021-22	26,919,077	0	65,110,045	0.0%
2022-23	7,038,011	7,038,012	64,437,918	10.9%
2023-24	9,524,865	TBD	68,559,935	TBD
2024-25	9,171,477	TBD	71,803,623	TBD

*The Town contribution for fiscal year 2020-21 includes Pension Obligation Bond proceeds of \$322.9 million.

Section III - Development of Contribution

K. Tread Water Amount

The **Tread Water Amount** is equal to the Town's net normal cost (see Section III C) plus one year's interest on the Accrued Liability less the Market Value of Assets. Below is a comparison of the Tread Water Amount to the Actuarially Determined Contribution based on the results of our long range forecast (see Section III F). We have included this metric at the Town's request.

Valuation Date	Net Normal Cost	Accrued Liability	Market Value of Assets	Tread Water Amount	Actuarially Determined Contribution (ADC)	ADC as a Percent of the Tread Water Amount
July 1, 2023	\$6,147,901	\$602,838,769	\$511,404,408	\$12,091,134	\$9,171,477	75.9%
July 1, 2024	6,146,000	609,499,000	515,257,000	12,272,000	9,970,000	81.2%
July 1, 2025	6,123,000	615,667,000	518,163,000	12,460,000	10,750,000	86.3%
July 1, 2026	6,192,000	621,358,000	521,246,000	12,699,000	11,567,000	91.1%
July 1, 2027	6,135,000	626,587,000	524,436,000	12,775,000	12,204,000	95.5%
July 1, 2028	6,173,000	631,277,000	527,855,000	12,896,000	12,885,000	99.9%
July 1, 2029	6,188,000	635,904,000	531,771,000	12,957,000	13,509,000	104.3%
July 1, 2030	6,320,000	640,529,000	536,325,000	13,094,000	14,224,000	108.6%
July 1, 2031	6,401,000	645,414,000	541,653,000	13,145,000	14,867,000	113.1%
July 1, 2032	6,484,000	650,600,000	547,966,000	13,155,000	15,487,000	117.7%

Note that the Actuarially Determined Contribution calculated as of each valuation date is for the fiscal year that starts one year after the valuation date.

Section III - Development of Contribution

L. Alternative Contribution Amounts

At the Town's request, we have estimated the Actuarially Determined Contribution (ADC) under several alternative scenarios. For each scenario, the Market Value of Assets is used rather than the Actuarial Value (i.e., no asset smoothing is used) and the amortization payment is calculated as a flat dollar amount. Otherwise, all the same methods and assumptions that are used for the actual ADC calculation are used. Note that the resulting amounts are not considered "reasonable" ADCs as that term is defined by ASOP 4.

Interest Rate	6.00%	7.00%	8.00%	10.00%
1. Total Normal Cost*	\$10,046,000	\$8,289,000	\$6,839,000	\$4,656,000
2. Expected Member Contributions	3,367,000	3,367,000	3,367,000	3,367,000
3. Expected Expenses	389,000	389,000	389,000	389,000
4. Net Normal Cost: (1) - (2) + (3)	7,068,000	5,311,000	3,861,000	1,678,000
5. Accrued Liability*	633,985,000	573,223,000	518,285,000	423,700,000
6. Market Value of Assets	511,404,000	511,404,000	511,404,000	511,404,000
7. Unfunded Accrued Liability: (5) - (6)	122,581,000	61,819,000	6,881,000	(87,704,000)
8. Amortization Period	23	23	23	23
9. Amortization Growth Rate	0.00%	0.00%	0.00%	0.00%
10. Past Service Cost: (7) amortized over (8) **	9,399,000	5,125,000	614,000	0
11. Interest on (4) + (10)	988,000	731,000	358,000	168,000
12. ADC: (4) + (10) + (11), not less than \$0	17,455,000	11,167,000	4,833,000	1,846,000

*The plan's duration on the valuation date, as measured for GASB 68 purposes, was used to estimate the impact of the interest rate difference relative to the valuation interest rate assumption.

** Not less than \$0 unless funded ratio is greater than 150%

Section IV - Membership Data

A. Reconciliation of Membership from Prior Full Valuation

Details of the changes in the Plan membership since the last full valuation are shown below. Additional details on the Plan membership are provided in the remainder of Section IV.

	Active Members	Terminated Vested Members	Nonvested Members Due Refunds	Service Retirees	Disabled Retirees	Beneficiaries	Total
Count July 1, 2022	827	54	37	1,082	31	150	2,181
Terminated							
- refund due	(29)	-	29	-	-	-	0
- paid refund	(19)	-	(2)	-	-	-	(21)
- vested benefits due	(12)	12	-	-	-	-	0
Retired	(31)	(5)	-	36	-	-	0
Died	-	-	-	-	-	-	0
- with beneficiary	(1)	-	-	(5)	(1)	7	0
- no beneficiary	(1)	-	-	(33)	-	(6)	(40)
Benefits expired	-	-	-	-	-	-	0
New member	91	-	-	-	-	-	91
Rehired	-	-	-	-	-	-	0
New Alternate Payee	-	-	-	-	-	4	4
Correction	-	-	-	-	-	1	1
Count July 1, 2023	825	61	64	1,080	30	156	2,216

Breakdown as of July 1, 2023 by plan

Part A	0	0	0	3	0	7	10
Part B	263	44	6	759	16	72	1,160
Part B1	12	2	0	4	0	0	18
Part C	91	1	0	127	10	36	265
Part D	126	2	10	186	4	41	369
Part E	<u>333</u>	<u>12</u>	<u>48</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>394</u>
Total	825	61	64	1,080	30	156	2,216

Section IV - Membership Data

B. Statistics of Active Membership

		As of July 1, 2022	As of July 1, 2023
Number of Active Members	Part B	295	263
	Part B1	13	12
	Part C	86	91
	Part D	123	126
	Part E	<u>310</u>	<u>333</u>
	Total	827	825
Average Age	Part B	55.9	56.2
	Part B1	37.3	38.8
	Part C	38.8	39.5
	Part D	34.3	34.0
	Part E	45.6	45.6
	Total	46.8	46.4
Average Service	Part B	18.2	18.9
	Part B1	8.6	9.6
	Part C	7.9	8.4
	Part D	8.3	8.2
	Part E	3.8	4.1
	Total	10.1	10.0
Total Payroll	Part B	\$21,727,402	\$20,501,260
	Part B1	1,178,010	1,015,637
	Part C	12,068,743	12,845,687
	Part D	15,295,547	16,342,897
	Part E	<u>18,290,233</u>	<u>21,098,142</u>
	Total	68,559,935	71,803,623
Average Payroll	Part B	\$73,652	\$77,952
	Part B1	90,616	84,636
	Part C	140,334	141,161
	Part D	124,354	129,706
	Part E	59,001	63,358
	Total	82,902	87,035

Section IV - Membership Data

C. Distribution of Active Members as of July 1, 2023

Part B

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29								0
30-34		4						4
35-39		5	9					14
40-44		2	6	7	3			18
45-49		5	7	8	9	2		31
50-54		2	13	12	13	4	4	48
55-59		2	11	10	17	8	1	49
60-64	1	4	8	12	20	8	2	55
65+		2	4	15	12	3	8	44
Total	1	26	58	64	74	25	15	263

Part B1

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29	1							1
30-34	3	2						5
35-39		1						1
40-44				2				2
45-49				1	1			2
50-54								0
55-59								0
60-64		1						1
65+								0
Total	4	4	0	3	1	0	0	12

Part C

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	1							1
25-29	7							7
30-34	15	5	1					21
35-39	12	11	9	1				33
40-44	3		4	1	1			9
45-49	1	1	3		3			8
50-54					5			5
55-59	2		2		1	1		6
60-64			1					1
65+								0
Total	41	17	20	2	10	1	0	91

Section IV - Membership Data

C. Distribution of Active Members as of July 1, 2023

Part D

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	14							14
25-29	25	8						33
30-34	7	13	7					27
35-39	4	1	13	9				27
40-44	1	1		12	1			15
45-49	2			1	1			4
50-54				3	1			4
55-59	1			1				2
60-64								0
65+								0
Total	54	23	20	26	3	0	0	126

Part E

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	14							14
25-29	36	4						40
30-34	23	6						29
35-39	20	10	2					32
40-44	38	10	1					49
45-49	20	7		1				28
50-54	27	17	1	1				46
55-59	20	16	1	1				38
60-64	29	14	2					45
65+	6	5	1					12
Total	233	89	8	3	0	0	0	333

Section IV - Membership Data

D. Statistics of Inactive Membership

	As of July 1, 2022	As of July 1, 2023
Terminated Vested Members		
Number	54	61
Total Annual Benefit	\$560,061	\$680,612
Average Annual Benefit	10,372	11,158
Average Age	51.2	50.3
Nonvested Members Due Refunds		
Number	37	64
Service Retirees		
Number	1,082	1,080
Total Annual Benefit	\$36,788,669	\$37,119,633
Average Annual Benefit	34,001	34,370
Average Age	70.6	70.8
Disabled Retirees		
Number	31	30
Total Annual Benefit	\$770,161	\$735,517
Average Annual Benefit	24,844	24,517
Average Age	65.6	66.5
Beneficiaries		
Number	150	156
Total Annual Benefit	\$2,310,042	\$2,446,048
Average Annual Benefit	15,400	15,680
Average Age	76.7	76.4

Section IV - Membership Data
E. Distribution of Inactive Members as of July 1, 2023

	Age	Number	Annual Benefits
Terminated Members*	< 50	73	\$310,588
	50 - 59	40	322,077
	60 - 69	11	47,947
	70 - 79	0	0
	80 - 89	1	0
	90 +	<u>0</u>	<u>0</u>
	Total	125	680,612
Service Retirees	< 50	34	\$2,297,739
	50 - 59	124	7,463,652
	60 - 69	334	13,338,004
	70 - 79	386	10,125,567
	80 - 89	167	3,537,554
	90 +	<u>35</u>	<u>357,116</u>
	Total	1,080	37,119,633
Disabled Retirees	< 50	0	\$0
	50 - 59	9	264,721
	60 - 69	9	170,420
	70 - 79	8	181,977
	80 - 89	4	118,398
	90 +	<u>0</u>	<u>0</u>
	Total	30	735,517
Beneficiaries	< 50	4	\$139,486
	50 - 59	12	269,367
	60 - 69	22	329,484
	70 - 79	52	924,035
	80 - 89	50	634,674
	90 +	<u>16</u>	<u>149,002</u>
	Total	156	2,446,048

*Count includes terminated vested members and non-vested members who are due a refund of contributions. Annual benefits represent future annuities for terminated vested members only.

Section V - Analysis of Risk

A. Introduction

The results of this actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match these assumptions. As an example, the plan's investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these likely differences when making decisions that may affect the future financial health of the plan, or of the plan's members.

In addition, as plans mature they accumulate larger pools of assets and liabilities. The increase in size in turn increases the potential magnitude of adverse experience. As an example, the dollar impact of a 10% investment loss on a plan with \$1 billion in assets and liabilities is much greater than the dollar impact for a plan with \$1 million in assets and liabilities. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the plan is today, and how mature it may become in the future.

Actuarial Standard of Practice No. 51 (ASOP 51) directs actuaries to provide pension plan sponsors with information concerning the risks associated with the plan:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

This section of the report uses the framework of ASOP 51 to communicate important information about significant risks to the plan, the plan's maturity, and relevant historical plan data.

Please see Sections III E and III F for more information on the basis for the projected results shown on the following pages.

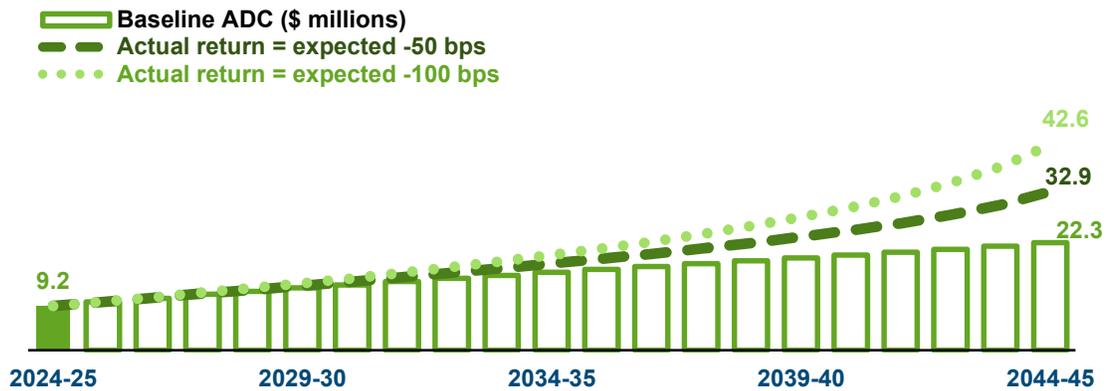
Section V - Analysis of Risk

B. Risk Identification and Assessment

Investment Risk

Definition: This is the potential that investment returns will be different than expected.

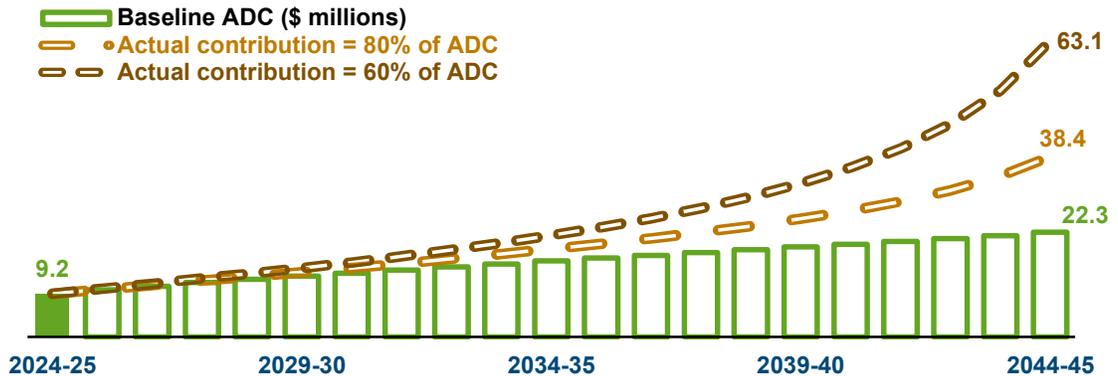
Identification: To the extent that actual investment returns differ from the assumed investment return, the plan’s future assets, Actuarially Determined Contributions, and funded status may differ significantly from those presented in this valuation. The consequences of persistent underperformance on future Actuarially Determined Contribution levels are illustrated below:



Contribution Risk

Definition: This is the potential that actual future contributions will be less than the Actuarially Determined Contribution.

Identification: Over the past 6* years, actual contributions have been approximately 100.0% of the Actuarially Determined Contribution in total. The consequences of persistent underfunding on future Actuarially Determined Contribution levels are illustrated below:



*We excluded the past three years from this metric due to the Pension Obligation Bond which distorted the contribution rate

Section V - Analysis of Risk

B. Risk Identification and Assessment

Liquidity Risk

Definition: This is the potential that assets must be liquidated at a loss earlier than planned in order to pay for the plan's benefits and operating costs. This risk is heightened for plans with negative cash flows, in which contributions are not sufficient to cover benefit payments plus expenses.

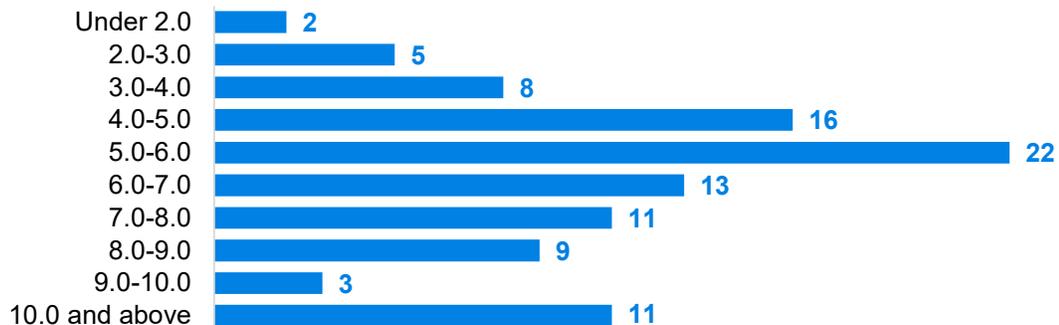
Identification: In 2022-23, the plan had negative cash flow, with town and member contributions to the plan of \$10,575,895 compared to \$40,514,569 of benefit payments and administrative expenses paid out of the plan. We suggest that you consult with your investment advisors with respect to the liquidity characteristics of the plan's investment holdings.

Maturity Risk

Definition: This is the potential for total plan liabilities to become more heavily weighted toward inactive liabilities over time, and for plan assets and/or liabilities to become larger relative to the active member liability.

Identification: The plan is subject to maturity risk because as plan assets and liabilities continue to grow, the dollar impact of any gains or losses on the assets or liabilities also becomes larger.

Assessment: As of July 1, 2023, the plan's Asset Volatility Ratio (the ratio of the market value of plan assets to payroll) is 7.1. According to Milliman's 2022 Public Pension Funding Study, the 100 largest US public pension plans have the following range of Asset Volatility Ratios:



Inflation Risk

Definition: This is the potential for a pension to lose purchasing power over time due to inflation.

Identification: The members of pension plans without fully inflation-indexed benefits are subject to the risk that their purchasing power will be reduced over time due to inflation.

Assessment: This plan provides for limited postretirement benefit increases, but the increases are not directly tied to each year's rate of actual inflation; this leaves members bearing some inflation risk. In addition, not all members are eligible for these increases.

Section V - Analysis of Risk

B. Risk Identification and Assessment

Insolvency Risk

Definition: This is the potential that a plan will become insolvent; that is, assets will be fully depleted.

Identification: If a plan becomes insolvent, contractually required benefits must be paid from the plan sponsor's other remaining assets.

Assessment: Under the GASB 67/68 depletion date methodology, the plan is not projected to become insolvent. Please see the GASB 67/68 report for more details on the underlying analysis.

Demographic Risks

Definition: This is the potential that mortality, turnover, retirement, or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that members will follow patterns of demographic experience as described in Appendix B. If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, Actuarially Determined Contributions, and funded status may differ significantly from those presented in this valuation. Formal Experience Studies performed on a regular basis are helpful in ensuring that the demographic assumptions reflect emerging plan experience.

Retirement Risk

Definition: This is the potential for members to retire and receive subsidized benefits that are more valuable than expected.

Identification: This plan has a range of retirement eligibility with varying retirement benefits. If members retire at different ages than are anticipated by the actuarial assumptions, this may put upward pressure on subsequent Actuarially Determined Contributions.

Pensionable Earnings Risk

Definition: This is the potential for active members to add items to their pensionable earnings and receive pension benefits that are higher than expected.

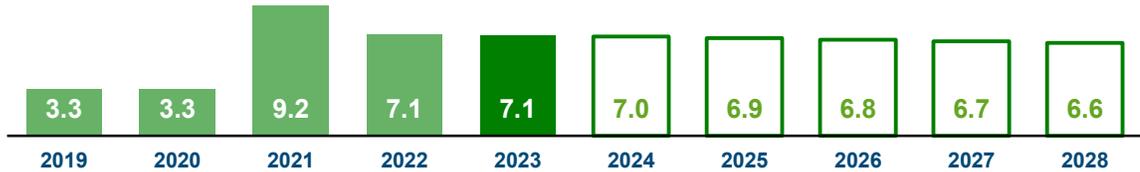
Identification: Unused sick pay is included in pension calculations for some groups of members (see Appendix C for more details). If members include more unused sick pay than is anticipated by the actuarial assumptions, this will put upward pressure on subsequent Actuarially Determined Contributions.

Section V - Analysis of Risk

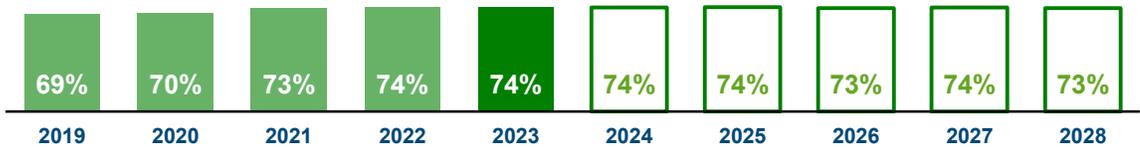
C. Maturity Measures

The metrics presented below are different ways of understanding the plan's maturity level, both in the past and as it is expected to change in the coming years.

Asset Volatility Ratio: Market Value of Assets compared to Payroll



Accrued Liability for members in pay status compared to total Accrued Liability



Benefit Payments compared to Market Value of Assets



Net Cash Flows compared to Market Value of Assets*



Benefit Payments compared to Town Contributions*



Duration of Accrued Liability (based on GASB 68 sensitivity disclosures)



*The 2021 metrics exclude the Pension Obligation Bond proceeds.

Appendix A - Actuarial Funding Method

The actuarial funding method used in the valuation of this Plan is known as the Entry Age Normal Method. The Actuarially Determined Contribution consists of three pieces: Normal Cost plus a Past Service Cost payment to gradually eliminate the Unfunded Accrued Liability plus Interest to reflect the timing of the contribution relative to the valuation date.

The Normal Cost is determined by calculating the present value of future benefits for present active Members that will become payable as the result of death, disability, retirement or termination. This cost is then spread as a level percentage of earnings from entry age to termination as an Active Member. If Normal Costs had been paid at this level for all prior years, a fund would have accumulated. Because this fund represents the portion of benefits that would have been funded to date, it is termed the Accrued Liability. In fact, it is calculated by adding the present value of benefits for Retired Members and Terminated Vested Members to the present value of benefits for Active Members and subtracting the present value of future Normal Cost contributions.

The funding cost of the Plan is derived by making certain specific assumptions as to rates of interest, mortality, turnover, etc. which are assumed to hold for many years into the future. Since actual experience may differ somewhat from the assumptions, the costs determined by the valuation must be regarded as estimates of the true costs of the Plan.

The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets. This Unfunded Accrued Liability is amortized as a level percent over a closed 25 year period starting on July 1, 2021. The amortization period will decrease by 1 year every year. Once it reaches 10, the policy will shift to 10 year layered amortization bases. The Town will continue to fund the Net Normal Cost so long as the Plan's funded ratio is below 150%. Should the funded ratio be 150% or more as of the valuation date, surplus would be used to offset the Net Normal Cost.

The Actuarial Value of Assets is determined by recognizing market gains and losses asymptotically over a five year period. The Actuarial Value of Assets was set equal to the Market Value of Assets as of July 1, 2021.

The long-range forecasts included in this report have been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years.

Appendix B - Actuarial Assumptions

Each of the assumptions used in this valuation was set based on a formal study of the plan's experience for the period July 1, 2017 - June 30, 2022 supplemented by industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period. Several assumptions were changed with this valuation. See pages 46 and 47 of this report for the assumptions that were used for the prior valuation.

Interest Rate	6.50%			
Inflation	2.50%			
Amortization Growth Rate	2.75%			
Expenses	The prior year actual administrative expenses paid, increased with inflation and rounded to the nearest \$1,000.			
Salary Scale	Police:	Service	Rate	
		0	7.10%	
		1	7.50%	
		2	5.70%	
		3	6.50%	
		4	9.40%	
		5-19	3.00%	
		20	7.00%	
		21+	2.75%	
		Fire:	Service	Rate
			0	7.20%
			1	7.40%
			2	5.70%
			3	6.50%
			4	8.50%
			5+	2.75%
		Others:	Service	Rate
			0-4	6.00%
			5	5.00%
			6-8	4.50%
			9-14	3.50%
		15+	2.75%	

Plus an additional 1% increase in the first year for all groups.

Pay Adjustment for Unions With Open Contracts	2.50% per year back to July 1, 2021 for Public Safety Dispatch (Part B1) and all SEIU groups (65,66,68,70,71,73,74 and 81).
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Appendix B - Actuarial Assumptions

Unused Sick Pay

Including unused sick days in Average Final Compensation is assumed to increase benefits by:

Parts B & B1 & E	5.00%
Parts C & D	5.25%

Turnover

Parts B & B1 & E:

Town employees: 5% per year

BOE (Custodian/Maintenance):

Service	Rate
0-4	3%
5-9	1%
10+	0%

BOE (Others):

Service	Rate
0-4	13%
5-9	8%
10+	7%

Parts C & D:

Service	Rate
0	18.0%
1-3	5.0%
4-9	1.5%
10+	0%

Disability

Age	Rate
20	0.08%
30	0.09%
40	0.17%
50	0.51%
60	1.44%

Service-connected disabilities are assumed to comprise 20% of disabilities for Parts B & B1 & E and 50% of disabilities for Parts C & D.

The member's regular accrued benefit is assumed to be higher than the other disability benefits under the plan.

Appendix B - Actuarial Assumptions

Retirement

Parts B & B1 & E:

Age	Rate
45-54	3%
55	10%
56-57	5%
58	8%
59-61	12%
62	20%
63	11%
64-66	25%
67	40%
68	25%
69-73	20%
74	50%
75	100%

Part C:

Age	Rate
40-42	0%
43-54	20%
55	30%
56-64	40%
65	100%

In the year in which the member becomes eligible for both an unreduced pension and retiree medical benefits, the greater of the rate from the table and 20% for ages 40-49 and 25% for ages 50+

Part D:

Age	Rate
30-39	0%
40-44	1%
45-54	50%
55-59	60%
60	100%

In the year in which the member becomes eligible for both an unreduced pension and retiree medical benefits, the greater of the rate from the table and 60% for ages 40-45 and 50% for ages 46+

Appendix B - Actuarial Assumptions

Healthy Mortality

Pub-2010 Mortality Table with generational projection per the MP-2021 ultimate scale, with employee rates before commencement and healthy annuitant rates after benefit commencement. The Public Safety variant is used for Custodial (05), Maintenance (06), Grounds (70), Building Maintenance (71), Streets (62), Fire (61), and Police (60), and the General variant is used for all other groups. This assumption includes a margin for future improvements in longevity.

Disabled Mortality

Pub-2010 Mortality Table for disabled retirees with generational projection per the MP-2021 ultimate scale. The Public Safety variant is used for Custodial (05), Maintenance (06), Grounds (70), Building Maintenance (71), Streets (62), Fire (61), and Police (60), and the General variant is used for all other groups. This assumption includes a margin for future improvements in longevity.

Marital Status

80% of active participants are assumed to be married. Female spouses are assumed to be 3 years younger than male spouses.

Survivor Benefit

In order to approximate the additional death benefits for Parts C & D, the survivorship benefit is assumed to equal 25% of final pay and the normal form of the retirement benefit is valued as a 10% Joint & Survivor annuity.

Appendix B - Actuarial Assumptions

Changes in Assumptions From Prior Year

The following assumptions were used in the prior year actuarial valuation:

Interest Rate 6.25%

Inflation 2.75%

Salary Scale	Age	Rate
	<25	6.00%
	25-29	5.85%
	30-34	4.65%
	35-39	4.35%
	40-49	3.65%
	50-59	3.50%
	60+	2.80%

Turnover	Parts B & B1 & E:	Service			
		Age	0-2	3-5	6-9
	20	30%	12%	8%	6%
	25	25%	11%	7%	5%
	30	20%	10%	6%	4%
	35	15%	9%	5%	3%
	40+	10%	8%	4%	2%

Part C: None

Part D: Crocker-Sarasan Table T-1

Appendix B - Actuarial Assumptions

Changes in Assumptions From Prior Year (continued)

Retirement

Parts B & B1 & E:

Age	Rate
45-49	1%
50-54	3%
55-59	5%
60	15%
61-64	10%
65-69	40%
70	100%

Part C:

Age	Rate	
40-44	1%	In the year in which the member becomes eligible for both an unreduced pension and retiree medical benefits, the greater of the rate from the table and 25%
45-49	5%	
50-55	10%	
56-64	25%	
65	100%	

Part D:

Age	Rate	
30-39	1%	In the year in which the member becomes eligible for both an unreduced pension and retiree medical benefits, the greater of the rate from the table and 25%
40-44	2%	
45-54	10%	
55-61	20%	
62	100%	

Appendix C - Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Many plan provisions vary by union. We have shown the applicable union codes in parentheses where appropriate to indicate which union(s) are covered by which plan provisions.

Effective Date of Plan March 1, 1945

Covered Employees Employees working at least 1,000 hours, excluding those teachers eligible under the State Teachers Retirement System, may participate. Participation is compulsory for new employees hired under age 50.

Employees hired after the following dates are not covered by the Pension Plan:

Nurses (07)	June 1, 2010
Cafeteria (08)	June 1, 2011
Security (12)	June 1, 2010
Directors (59)	July 1, 2012 may opt out

Classes of Members

Part A Covered Employees on December 8, 1959 who did not elect coverage under Social Security plus certain police officers and firefighters not covered under Part C or Part D.

Part B All Covered Employees not in Parts A, B1, C, D, or E.

Board of Education Unions

- Secretarial/Clerical (02)
- Paraprofessional (03)
- Printers (04)
- Custodial (05)
- Maintenance (06)
- Nurses (07)
- Cafeteria (08)
- Non-Bargaining (09)
- Custodial III/Head Custodian (10)
- Security (12)
- Professional/Technical (14)
- Cafeteria Managers (15)
- Non-Union Plan B (16)

Town Unions

- Nurses (58)
- Directors (59)
- Streets (62)
- Clerical (65)
- Non-Bargaining Clerical (66)
- Non-Bargaining (68)
- Grounds (70)
- Building Maintenance (71)
- Professional/Management (73)
- Supervisor (74)
- Parking Monitors (81)
- Corporate Counsel (87)
- Town Manager (90)

Part B1 (64) All Covered Employees classified as public safety dispatchers.

Appendix C - Summary of Plan Provisions

Classes of Members (continued)

Part C (61)	All Covered Employees classified as firefighters except those covered in Part A.	
Part D (60)	All Covered Employees classified as police officers except those covered in Part A.	
Part E	Covered employees in the following unions who were hired on or after the dates indicated:	
	Secretarial/Clerical (02)	05/21/2013
	Paraprofessional (03)	05/21/2013
	Printers (04)	10/02/2012
	Custodial (05)	10/02/2012
	Maintenance (06)	10/02/2012
	Custodial III/Head Custodian (10)	07/01/2014
	Professional/Technical (14)	10/15/2013
	Cafeteria Managers (15)	07/01/2014
	Nurses (58)	11/10/2015
	Directors (59)	07/01/2012
	Streets (62)	08/01/2016
	Clerical (65)	05/24/2016
	Non-Bargaining (68)	11/10/2015
	Grounds (70)	09/24/2015
	Building Maintenance (71)	05/24/2016
	Professional/Management (73)	09/24/2015
	Supervisor (74)	05/24/2016
	Parking Monitors (81)	02/07/2017

Credited Service All service including completed months from date of hire to date of actual retirement, date of death, or date of termination of employment. Solely for the purpose of calculating amount of pension (see Normal Retirement Benefit) credited service includes any additional service credited in connection with the prior governmental service purchase provision of the plan.

Compensation All benefits except Service-Connected Disability: Gross wages including overtime and the value of maintenance.

Service-Connected Disability Benefits: Annual rate of basic pay excluding overtime and other supplemental compensation.

Compensation is limited to \$200,000, indexed in accordance with the Internal Revenue Code requirements for qualified plans.

Appendix C - Summary of Plan Provisions

Average Final Compensation Average of the three highest calendar years of compensation, prior to date of actual retirement. Unused sick pay is included in average final compensation to the extent allowed under the plan.

For Part B and Part E members who were hired on or after the dates shown below, Average Final Compensation is capped at the member's highest paid calendar year base wage, not including overtime, longevity, meal payments, or other forms of compensation.

Secretarial/Clerical (02)	05/01/2006
Paraprofessional (03)	05/01/2006
Printers (04)	07/01/2004
Custodial (05)	07/01/2006
Maintenance (06)	07/01/2004
Nurses (07)	07/01/2004
Cafeteria (08)	07/01/2004
Non-Bargaining (09)	05/01/2006
Custodial III/Head Custodian (10)	07/01/2006
Security (12)	05/01/2006
Professional/Technical (14)	07/01/2004
Cafeteria Managers (15)	07/01/2004
Non-Union Plan B (16)	05/01/2006
All Town Unions (58) - (90)	07/01/2013

For Part C members who were hired on or after 04/01/2014, final rate of compensation is used; defined as the member's highest bi-weekly rate of pay times 26.089 plus the member's highest holiday pay attained.

Covered Compensation Covered compensation, as defined under Revenue Ruling 71-446, for persons turning age 65 during later of the year the member turns age 65 or the year of actual retirement.

Vesting An active member will become vested after 5 years of service (10 years for Dispatchers (64) members hired on or after 06/30/2007). A vested member is eligible for a vested pension payable starting at the member's Normal Retirement Date. The monthly benefit is equal to the accrued pension at date of termination. A vested member may elect to retire early and receive a reduced monthly benefit if the member has met the eligibility criteria. In lieu of monthly benefits, a vested member may elect to receive a refund of member contributions with credited interest.

Normal Form Single life annuity.

Appendix C - Summary of Plan Provisions

Unused Sick Pay

Unused sick pay is included in pension calculations for members who were hired prior to the dates shown below:

Secretarial/Clerical (02)	07/01/2006
Paraprofessional (03)	07/01/2006
Printers (04)	07/01/2005
Custodial (05)	07/01/2005
Maintenance (06)	07/01/2004
Nurses (07)	07/01/2004
Cafeteria (08)	07/01/2005
Non-Bargaining (09)	07/01/2006
Custodial III/Head Custodian (10)	07/01/2005
Security (12)	07/01/2005
Professional/Technical (14)	07/01/2004
Cafeteria Managers (15)	07/01/2005
Non-Union Plan B (16)	07/01/2006
All Town Unions (58) - (90)	07/01/2003
Part C	07/01/2005
Part D	08/01/2006

Appendix C - Summary of Plan Provisions

Member Contributions

Part B

Members contribute at the Normal Rate. For certain unions, the Long Service Rate applies after 30 years of service for members hired prior to 07/01/2003, and after 35 years of service for members hired on or after 07/01/2003. (Custodial (05) date of demarkation is 01/01/2006.) For members in the Streets (62), Grounds (70), Building Maintenance (71), and Supervisor (74) unions, the contribution is based on base pay. For other members, the contribution is based on total compensation.

	Normal Rate	Long Service Rate
	5.75%	
	5.50%	
	5.25%	2.00%
	5.50%	2.00%
	5.50%	2.00%
	6.00%	2.00%
	4.50%	
	6.00%	
	7.00%	
	6.25%	
	6.25%	
	7.00%	
	6.00%	
	6.25%	2.00%
	6.25%	4.00%
	6.25%	2.00%
a - Includes 1.00% for COLA	5.25% a	2.00% a
	6.25%	2.00%
	6.25%	2.00%
	6.25%	2.00%
a - Includes 1.00% for COLA	6.25% a	2.00% a
b - Includes 1.00% for COLA.	6.25%	2.00% b
Employees hired after	6.25%	3.00%
09/24/2015 contribute at	6.25%	2.00%
the Normal Rate regardless	6.25%	4.00%
of service.	6.25%	

Part B1 (64)

6% of compensation plus 1% COLA contribution.

Part C (61)

Members hired prior to 04/01/2014, 1% of base pay plus 7% of compensation. Members hired on or after 04/01/2014, 1% of base pay plus 7% of base plus holiday pay.

Part D (60)

1% of base pay plus 5% of compensation. Members hired on or after 06/26/2018, 6% of base pay.

Appendix C - Summary of Plan Provisions

Member Contributions cont.

Part E 3% of base compensation.

Interest 2% compounded annually.

Normal Retirement Date Earliest of the following age/service combinations, based on date of hire. For these purposes, "service" is calculated by assuming the member continues to work beyond date of termination.

Parts B & E	If hired prior to the applicable date				Applicable date	If hired on or after the applicable date		
Secretarial/Clerical (02)	55/25	60/10	70/0		05/01/2006	65/15	62/35	70/0
Paraprofessional (03)	55/25	60/10	70/0		05/01/2006	65/15	62/35	70/0
Printers (04)	55/25	60/10	70/0		07/01/2004	65/15	62/35	70/0
Custodial (05)	55/25	60/10	70/0	0/30	01/01/2006	65/15	0/35	70/0
Maintenance (06)	55/25	60/10	70/0	0/30	07/01/2004	65/15	62/35	70/0
Nurses (07)	55/25	60/10	70/0		07/01/2004	65/15	62/35	70/0
Cafeteria (08)	55/25	60/10	70/0		07/01/2004	65/15	62/35	70/0
Non-Bargaining (09)	55/25	60/10	70/0		07/01/2006	65/15	62/35	70/0
Custodial III/Head Custodian (10)	55/25	60/10	70/0		07/01/2005	65/15	62/35	70/0
Security (12)	55/25	60/10	70/0		05/01/2006	65/15	62/35	70/0
Professional/Technical (14)	55/25	60/10	70/0		07/01/2003	65/15	62/35	70/0
Cafeteria Managers (15)	55/25	60/10	70/0		07/01/2004	65/15	62/35	70/0
Non-Union Plan B (16)	55/25	60/10	70/0		07/01/2006	65/15	62/35	70/0
Nurses (58)	55/25	60/10	70/0		07/01/2003	65/15	62/35	70/0
Directors (59)	55/25	60/10	70/0		07/01/2003	65/15	62/35	70/0
Streets (62)	55/25	60/10	70/0	0/30	07/01/2003	65/15	0/35	70/0
Clerical (65)	55/25	60/10	70/0		07/01/2003	65/15	62/35	70/0
Non-Bargaining Clerical (66)	55/25	60/10	70/0		07/01/2003	65/15	62/35	70/0
Non-Bargaining (68)	55/25	60/10	70/0		07/01/2003	65/15	62/35	70/0
Grounds (70)	55/25	60/10	70/0	0/30	07/01/2003	65/15	62/35	70/0
Building Maintenance (71)	55/25	60/10	70/0	0/30	07/01/2003	65/15	62/35	70/0
Professional/Management (73)	55/25	60/10	70/0		07/01/2003	65/15	62/35	70/0
Supervisor (74)	55/25	60/10	70/0	0/30	07/01/2003	65/15	62/35	70/0
Parking Monitors (81)	applies to all members regardless of hire					65/15	62/35	70/0
Corporate Counsel (87)	55/25	60/10	70/0		07/01/2003	65/15	62/35	70/0
Town Manager (90)	55/25	60/10	70/0		07/01/2003	65/15	62/35	70/0
Part B1 (64)	55/25	60/10	70/0	0/20	07/01/2007	0/25		
Part C (61)	55/10	0/20	65/0		07/01/2005	50/25	65/0	
Part D (60)	applies to all members regardless of hire					55/10	0/20	65/0

Appendix C - Summary of Plan Provisions

Normal Retirement Benefit

Part B

For service prior to 01/01/1986:

(1) 2% times Average Final Compensation times Credited Service up to 33 years, plus 1% times Average Final Compensation times Credited Service in excess of 33 years; less

(2) 5/6% times Average Final Compensation not in excess of Covered Compensation times Credited Service; plus

(3) For Members who retire before age 62, a temporary allowance calculated as in (2) above. Such benefit shall terminate with the payment for the month the member attains Social Security Normal Retirement Age if in a Town union and age 62 otherwise.

For service after 01/01/1986: 2% times Average Final Compensation times Credited Service capped at 35 years (30 years for **Custodial (05)**).

For members of the following groups hired prior to the applicable date shown below, the benefit for a member who retires with 30 years of Credited Service is 70% of Average Final Compensation:

Custodial (05)	01/01/2006
Maintenance (06)	07/01/2004
Streets (62)	07/01/2003
Non-Bargaining Clerical (66)	07/01/2003
Non-Bargaining (68)	07/01/2003
Grounds (70)	07/01/2003
Building Maintenance (71)	07/01/2003
Professional/Management (73)	07/01/2003
Supervisor (74)	07/01/2003

For Clerical (65) members hired prior to 07/01/2003, the benefit for a member who retires at age 55 with 25 years of Credited Service is 60% of Average Final Compensation; the benefit for a member who retires at age 55 with 30 years of Credited Service is 70% of Average Final Compensation.

Part B1 (64)

The same as Part B. For members hired on or after 07/01/2007:

25-27 years of Credited Service	55% of Average Final Compensation
28+ years of Credited Service	56% of Average Final Compensation plus 2% for each additional year of Credited Service capped at 35 years

Appendix C - Summary of Plan Provisions

Part C (61) For members hired prior to 04/01/2014, 2.5% times Average Final Compensation times Credited Service, capped at 75% of Average Final Compensation (except as noted below under Maximum Benefit).

For members actively employed on 07/01/2014 who were hired prior to 04/01/2014 and retire with 30 years of Credited Service, 80% of Average Final Compensation.

For members hired on or after 04/01/2014, 2.0% times Average Final Compensation times Credited Service. For such members who retire with 30 years of Credited Service, 65% of Average Final Compensation. Maximum benefit is 65% of Average Final Compensation.

Part D (60) For members hired prior to 08/01/2006, 2.5% times Average Final Compensation times Credited Service.

For members hired on or after 08/01/2006 and prior to 06/26/2018, 2.5% times average base pay times Credited Service (average base pay is the highest three calendar years of base pay plus 50% of overtime pay determined without regard to private duty, sick leave, or any other compensation).

For members hired on or after 06/26/2018, 2.0% times average base pay times Credited Service (average base pay is the highest three calendar years determined without regard to overtime, private duty, sick leave, or any other compensation than base pay).

For members on payroll as of 07/01/2006 or hired thereafter but prior to 06/26/2018 who retire with 30 years of Credited service, 80% of Average Final Compensation (determined with buyback time excluded).

Part E 1.0% times Average Final Compensation times Credited Service capped at 35 years.

Minimum Benefit

Parts B & B1 & E \$360 per year. For terminated vested members, the benefit is reduced by \$24 per year for less than 15 years of continuous credited service.

Parts C & D \$1,000 per year. For Part C members, the benefit is reduced by \$67 per year for less than 15 years of continuous credited service.

Appendix C - Summary of Plan Provisions

Maximum Benefit

Parts B & E Except as noted below, the maximum benefit is 75% of Average Final Compensation for Part B and 35% of Average Final Compensation for Part E.

For all Board of Education unions except Printers (04) and Cafeteria (08), the maximum benefit (before the Supplemental Benefit) is 100% of the final year's base pay.

For members of Streets (62), Grounds (70), Building Maintenance (71), Professional/Management (73) who are eligible for normal retirement, and Supervisor (74) members who were hired prior to 07/01/2003 and retire with 30 years of service, the maximum benefit (before the Supplemental Benefit) is 70% of Average Final Compensation.

For all other Town union members, the maximum benefit (before the Supplemental Benefit) is 100% of the final year's base pay.

Part B1 75% of Average Final Compensation.

Part C For members hired prior to 07/01/2005, 95% of base pay. For members hired on or after 07/01/2005, 85% of base pay.

Part D For members hired prior to 08/01/2006, 95% of base pay (including education incentive and holiday pay only). For members hired on or after 08/01/2006, 85% of base pay (excluding overtime, holiday pay, sick pay, vacation time or other incentive or extra pay).

Supplemental Benefit Applies to Secretarial/Clerical (02), Paraprofessional (03) and Security (12) hired prior to 05/01/2006; Printers (04), Maintenance (06), Nurses (07), Cafeteria (08), Professional/Technical (14), and Cafeteria Managers (15) hired prior to 07/01/2004; Custodial (05) hired prior to 01/01/2006; Non-Bargaining (09) hired prior to 07/01/2006; Custodian III/Head Custodian (10) hired prior to 07/01/2005; and all Town unions and Town non-bargaining hired prior to 07/01/2003.

Members who work past Normal Retirement Date by attaining age 55 with 25 years of service or age 60 with 10 years of service receive a supplemental annual benefit equal to \$600 times each full year of service worked beyond Normal Retirement Date. This supplemental benefit is not eligible for a COLA and will not be a survivor benefit. Payments are made as a single payment during the month of July, starting the first July after the member's retirement date.

Appendix C - Summary of Plan Provisions

Early Retirement

A member may retire and receive a reduced monthly benefit upon reaching the earliest of the following age/service combinations, based on date of hire.

	If hired prior to the applicable date	Applicable date	If hired on or after the applicable date			
Parts B & E						
Secretarial/Clerical (02)	45/15	50/10	05/01/2006	55/15	60/10	
Paraprofessional (03)	45/15	50/10	05/01/2006	55/15	60/10	
Printers (04)	45/15	50/10	07/01/2004	55/15	60/10	
Custodial (05)	45/15	50/10	01/01/2006	55/15	60/10	
Maintenance (06)	45/15	50/10	07/01/2004	55/15	60/10	
Nurses (07)	45/15	50/10	07/01/2004	55/15	60/10	
Cafeteria (08)	45/15	50/10	07/01/2004	55/15	60/10	
Non-Bargaining (09)	45/15	50/10	07/01/2006	55/15	60/10	
Custodial III/Head Custodian (10)	45/15	50/10	07/01/2005	55/15	60/10	
Security (12)	45/15	50/10	05/01/2006	55/15	60/10	
Professional/Technical (14)	45/15	50/10	07/01/2003	55/15	60/10	
Cafeteria Managers (15)	45/15	50/10	07/01/2004	55/15	60/10	
Non-Union Plan B (16)	45/15	50/10	07/01/2006	55/15	60/10	
Nurses (58)	45/15	50/10	07/01/2003	55/15	60/10	
Directors (59)	45/15	50/10	07/01/2003	55/15	60/10	
Streets (62)	45/15	50/10	07/01/2003	55/15	60/10	
Clerical (65)	45/15	50/10	07/01/2003	55/15	60/10	
Non-Bargaining Clerical (66)	45/15	50/10	07/01/2003	55/15	60/10	
Non-Bargaining (68)	45/15	50/10	07/01/2003	55/15	60/10	
Grounds (70)	45/15	50/10	07/01/2003	55/15	60/10	
Building Maintenance (71)	45/15	50/10	07/01/2003	55/15	60/10	
Professional/Management (73)	45/15	50/10	07/01/2003	55/15	60/10	
Supervisor (74)	45/15	50/10	07/01/2003	55/15	60/10	
Parking Monitors (81)	45/15	50/10	07/01/2003	55/15	60/10	
Corporate Counsel (87)	45/15	50/10	07/01/2003	55/15	60/10	
Town Manager (90)	45/15	50/10	07/01/2003	55/15	60/10	
Part B1 (64)	45/15	50/10	07/01/2007	45/15	50/10	0/20
Benefit reduction basis (for all listed above)	1971GAM Male-1, 6.5%			6% per year retiring prior to Normal Retirement		

Parts C & D

Any age with 10 years of Credited Service; benefit reduction basis is 1971GAM Male-1, 6.5%.

Appendix C - Summary of Plan Provisions

Deferred Retirement

Parts B, B1 & E Members may work beyond retirement at their own option, and will continue to accrue benefits under the plan.

Parts C & D Members may not work later than the December 31st nearest their 65th birthday.

Disability Retirement

A member regardless of age with 10 or more years of continuous service is eligible if he or she is totally and permanently disabled and unable thereby to engage in gainful occupation with the Town. The benefit amount is equal to the regular pension benefit without reduction for early commencement.

If the disability is Service-Connected, the 10-year service requirement is waived and the benefit is the greater of (a) the regular pension benefit without reduction for early commencement, or (b) 50% of base pay less any payments received on account of Social Security or Worker's Compensation.

Parts B, B1 & E: annual minimum benefit of \$360.

Parts C & D: annual minimum benefit of \$1,000.

Survivorship Benefit

Upon the death of a Part C (61) or Part D (60) member, either active or retired (including disability retirements), an annual benefit is paid to spouses who have not remarried, dependent minor children, or dependent parent(s). The benefit is equal to a percentage between 25% and 50% (depending on number and types of survivors) of final base rate of pay.

Preretirement Death

Return of member's contributions with regular interest. Part C (61) and Part D (60) members generally do not receive 1% of base wages contributed.

Alternatively, a surviving spouse may elect to receive a life annuity starting on or after the date the member would have been eligible for Early Retirement. The benefit is equal to what the spouse would have received had the member terminated employment on the date of death, elected a 50% Joint & Survivor annuity commencing on the death benefit start date, and then died.

Appendix C - Summary of Plan Provisions

Postretirement Death

Excess of member's contributions with regular interest to retirement date over pension payments received prior to death, unless optional form with 10-year certain period has been elected. Part C (61) and Part D (60) members generally do not receive 1% of base wages contributed.

For Part C (61) and Part D (60) members, the surviving spouse will receive a benefit (until remarriage) as follows:

Age/Service Criteria:

Part C hired prior to 07/01/2005: 0/10

Part C hired on or after 07/01/2005: 55/10 or 0/15

Part D: 55/10 or 0/15

Benefit: The benefit that would have been payable to the surviving spouse had the member elected a 50% Joint & Survivor annuity. The excess of actual benefit payments received over the payments that would have been received had the member actually elected a 50% Joint & Survivor annuity must be repaid; the repayment can be made as an offset to the surviving spouse's monthly benefit.

For all other members, postretirement death benefits are payable according to the form of annuity elected by the member at retirement.

Cost of Living Adjustments

The following groups receive a 1% annual COLA starting on the January 1 or July 1 following the third year of retirement if the member retires on or after Normal Retirement Date, or beginning three years after the member would have been eligible for a Normal Retirement benefit.

Nurses (07) hired prior to 06/30/2010

Security (12) hired prior to 06/30/2010

Dispatchers (64)

Clerical (65)

Grounds (70) who retire prior to 09/24/2015

Building Maintenance (71)

Professional Management (73)

Supervisor (74) who retire prior to 05/24/2016

Part C (61) members hired after 07/01/2005 receive a 2% COLA starting two years after retirement and payable each July 1.

Part D (60) members hired after 08/01/2006 receive a 2% COLA starting on the July 1 following the second year of retirement. Those hired on or after 06/26/2018 are only eligible for this COLA if they retire under normal retirement provisions with 25 years of Credited Service.

COLAs do not apply to Supplemental Benefits, pre-retirement death benefits, disability benefits, or benefits payable to members who terminate with a vested benefit.

Appendix D - Glossary

Actuarial Cost Method - This is a procedure for determining the Actuarial Present Value of Benefits and allocating it to time periods to produce the Actuarial Accrued Liability and the Normal Cost.

Accrued Liability - This is the portion of the Actuarial Present Value of Benefits attributable to periods prior to the valuation date by the Actuarial Cost Method (i.e., that portion not provided by future Normal Costs).

Actuarial Assumptions - With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. Some examples of key assumptions include the interest rate, salary scale, and rates of mortality, turnover and retirement.

Actuarial Present Value of Benefits - This is the present value, as of the valuation date, of future payments for benefits and expenses under the Plan, where each payment is: a) multiplied by the probability of the event occurring on which the payment is conditioned, such as the probability of survival, death, disability, termination of employment, etc.; and b) discounted at the assumed interest rate.

Actuarial Value of Assets - This is the value of cash, investments and other property belonging to the plan, typically adjusted to recognize investment gains or losses over a period of years to dampen the impact of market volatility on the Actuarially Determined Contribution.

Actuarially Determined Contribution (“ADC”) - This is the employer’s periodic contributions to a defined benefit plan, calculated in accordance with actuarial standards of practice.

Attribution Period - The period of an employee’s service to which the expected benefit obligation for that employee is assigned. The beginning of the attribution period is the employee’s date of hire and costs are spread across all employment.

Interest Rate - This is the long-term expected rate of return on any investments set aside to pay for the benefits. In a financial reporting context (e.g., GASB 68) this is termed the Discount Rate.

Normal Cost - This is the portion of the Actuarial Present Value of Benefits allocated to a valuation year by the Actuarial Cost Method.

Past Service Cost - This is a catch-up payment to fund the Unfunded Accrued Liability over time (generally 10 to 30 years). A closed amortization period is a specific number of years counted from one date and reducing to zero with the passage of time; an open amortization period is one that begins again or is recalculated at each valuation date. Also known as the Amortization Payment.

Return on Plan Assets - This is the actual investment return on plan assets during the fiscal year.

Unfunded Accrued Liability - This is the excess of the Accrued Liability over the Actuarial Value of Assets.