



WORCESTER REGIONAL RETIREMENT SYSTEM

FINANCIAL REPORTING AND DISCLOSURES Governmental Accounting Standards Board Statements 67 and 68

**Disclosures as of
December 31, 2021**

KMS Actuarial, LLC
52 Hunt Road
Kingston, NH 03848

November, 2022



November 22, 2022

Mr. Kevin Blanchette
Chairman
Worcester Regional Retirement System
23 Midstate Drive, Suite 106
Auburn, MA 01501

Dear Kevin:

We are pleased to present the enclosed report providing financial reporting and disclosures under Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans (GASB 67), and GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68) for the Worcester Regional Retirement System and participating employers as of December 31, 2021. Results are based on liabilities developed in an actuarial valuation performed as of January 1, 2020 and rolled forward to the plan's measurement date of December 31, 2021.

The Principal Valuation Results are provided in Section 1. The Notes to the Financial Statements and the Required Supplementary Information are provided in Sections 2 and 3, respectively. Employer Reporting Amounts Under GASB 68 are provided in Section 4. Finally, a Glossary of Terms is provided in Section 5.

The financial reporting and disclosures contained in this report are based on the member data provided by the Worcester Regional Retirement Board, asset information reported to the Public Employee Retirement Administration Commission (PERAC) by the Retirement Board and plan provisions contained in Chapter 32 of the Massachusetts General Laws. Although we did not audit the data used in the valuation and disclosure calculations, we believe that the information is complete and reliable.

Liabilities presented in this report are based on a long-term investment return rate of 7.25%, net of investment expense, compounded annually.

This report was completed in accordance with generally accepted actuarial standards and procedures, and conforms to the Code of Professional Conduct of the American Academy of Actuaries. The actuarial assumptions used in the determination of costs are reasonably related to the experience of the Plan and to reasonable expectations, and represent our best estimate of anticipated long-term experience under the Plan.

Mr. Kevin Blanchette

November 22, 2022

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

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

This report is intended for the sole use of the Worcester Regional Retirement System and participating employers and is intended to provide information to comply with the stated purpose of the report. It may not be appropriate for other purposes.

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

Respectfully submitted,



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EXECUTIVE SUMMARY

GASB 67 and GASB 68

In June 2012, the GASB approved two related Statements that significantly changed the way pension plans and governments account and report pension liabilities. Effective for plans with fiscal years beginning after June 15, 2013, **GASB Statement No. 67**, *Financial Reporting for Pension Plans*, replaced the requirements of Statement No. 25 and effective for employers with fiscal years beginning after June 15, 2014, **GASB Statement No. 68**, *Accounting and Financial Reporting for Pensions*, replaced the requirements of Statement No. 27.

The pension standards reflect changes from those previously in place regarding how governments calculate total pension liability and pension expense. Further, the standards contain requirements for disclosing information in the notes to financial statements and presenting required supplementary information following the notes.

GASB 67 requires defined benefit pension plans, such as the Worcester Regional Retirement System, to present a statement of fiduciary net position (pension plan assets) and a statement of changes in fiduciary net position. Further, the statement requires that notes to financial statements include descriptive information such as the types of benefits provided, the classes of plan members covered and the composition of the pension plan's retirement board. Finally, GASB 67 requires pension plans to present in required supplementary information the sources of the changes in the net pension liability and information about the actuarially determined contributions compared with the actual contributions made to the plan and related ratios.

GASB 67 and GASB 68 require projected benefit payments be discounted to their actuarial present value using the single rate that reflects a long-term expected rate of return on pension plan investments to the extent that the pension plan's assets are sufficient to pay benefits and pension plan assets are expected to be invested using a strategy to achieve that return and a tax-exempt, high-quality municipal bond rate to the extent that the conditions for use of the long-term expected rate of return are not met.

GASB 68 establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources and pension expense by state and local governments.

The effective date for GASB 67 is for plan years beginning after June 15, 2013, which is the fiscal year ending December 31, 2014 for the Worcester Regional Retirement System. The effective date for GASB 68 is for employers' fiscal years beginning after June 15, 2014. The disclosures prepared as of December 31, 2021 (the measurement date) presents information to assist the Worcester Regional Retirement Board in providing the required information under GASB 68 to participating employers.

GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*, clarifies the application of certain provisions of Statements 67 and 68 with regard to the following issues:

- (1) Information about investment-related factors that significantly affect trends in the amounts reported for GASB 67 and GASB 68 should be limited to those factors over which the pension plan or participating governments have influence (such as an investment policy) and
- (2) The contribution-related schedules in the RSI should exclude amounts associated with payables to the pension plan that arose in a prior fiscal year.

GASB Statement No. 82, *Pension Issues - An Amendment of GASB Statements No. 67, No. 68, and No. 73*, clarifies the definition of covered payroll, that a deviation from the Actuarial Standards of Practice with respect to selection of assumptions is not considered to be in conformity with GASB 67, GASB 68 and GASB 73, and that employer-paid member contributions are to be classified as plan member contributions.

EXECUTIVE SUMMARY

A summary of principal results from the current disclosures and prior disclosures follows.

Disclosure Date	December 31, 2021	December 31, 2020	% Change
Valuation Date	January 1, 2020	January 1, 2020	
Membership Data			
Active Plan Members	7,121	7,137	(0.2%)
Inactive Members Currently in Receipt	4,112	3,941	4.3%
Inactive Members Deferred	2,714	2,414	12.4%
Total Plan Members	13,947	13,492	3.4%
Covered Payroll	\$316,455,433	\$321,050,145	(1.4%)
Net Pension Liability			
Discount Rate	7.25%	7.50%	
Total Pension Liability (TPL)	\$1,921,828,296	\$1,787,058,913	7.5%
Fiduciary Net Position (FNP)	1,079,814,993	898,658,766	20.2%
Net Pension Liability (NPL)	\$842,013,303	\$888,400,147	(5.2%)
FNP as % of TPL	56.2%	50.3%	11.7%
Pension Expense			
Pension Expense	\$78,810,662	\$100,873,556	(21.9%)
Deferred Outflows	\$72,402,779	\$56,206,384	
Deferred Inflows	\$136,404,861	\$68,957,576	
Recognition Period	5.71	5.71	

EXECUTIVE SUMMARY

Fiduciary Net Position

Pension plan investments are reported at market value as of the measurement date. The fiduciary net position as of the current and prior measurement dates are shown in Section 1, Fiduciary Net Position.

Total Pension Liability

The Total Pension Liability is based on liabilities developed in an actuarial valuation performed as of January 1, 2020 and rolled forward to the plan's measurement date of December 31, 2021 and is shown in Section 1, Total Pension Liability.

Benefit Changes

All benefit provisions remained the same from the prior measurement date. The Plan provisions used in these disclosures are detailed in Section 5, Summary of Plan Provisions, in the most recent funding actuarial report.

Assumption Changes

Most of the Actuarial Assumptions and Methods used in these disclosures are the same as the last measurement date, except the investment rate of return assumption decreased from 7.50% to 7.25% and the mortality table and mortality improvement rates were updated. The Actuarial Assumptions and Methods used in these disclosures are detailed in Section 6, Actuarial Assumptions and Methods, in the most recent funding valuation report.

Pension Expense

The Pension Expense for the fiscal year ending December 31, 2021 is \$78,810,662 and is developed in Exhibit 4.2. Pension Expense, as well as the Net Pension Liability and Deferred Outflows of Resources and Deferred Inflows of Resources, are developed for each member unit and are shown in Appendix C. Amounts by employer are developed using a proportionate share, the proportion of each employer's contribution to the aggregate amount of employer contributions, as shown in Exhibit 4.3.

COVID-19 Pandemic

The assumptions in this report do not reflect the potential impacts of the COVID-19 pandemic on the System. Especially in the short range, the pandemic is likely to materially affect the economic and demographic experience, in a way not anticipated by the assumptions on which the projections are based.

SECTION 1 - PRINCIPAL VALUATION RESULTS

Fiduciary Net Position

Asset information was provided by the Worcester Regional Retirement Board. The Trust Fund Composition, Asset Activity and the Gain or Loss on Pension Plan Investments for the current and prior fiscal years are as follows:

Fiscal Year Ended December 31 **2021** **2020**

Trust Fund Composition at Fiscal Year-End			
Cash	\$	3,913,792	\$ 4,386,752
Individually Owned Short Term Investments		0	0
Fixed Income Securities		0	0
Equities (at market value)		0	0
Pooled Short Term Funds		0	0
Pooled Domestic Equity Funds		0	0
Pooled International Equity Funds		0	0
Pooled Global Equity Funds		0	0
Pooled Domestic Fixed Income Funds		0	0
Pooled International Fixed Income Funds		0	0
Pooled Global Fixed Income Funds		0	0
Pooled Alternative/Private Equity		47,220	688,422
Pooled Real Estate Funds		0	0
Pooled Domestic Balanced Funds		0	0
Pooled International Balanced Funds		0	0
Hedge Funds		0	0
PRIT Cash		0	0
PRIT Fund		1,082,662,154	899,736,351
Interest Due and Accrued		0	0
Prepaid Expenses		0	0
Accounts Receivable (A)		6,944,235	5,656,731
Land		0	0
Buildings		0	0
Accumulated Depreciation - Buildings		0	0
Accounts Payable (A)		(9,968,569)	(8,092,378)
Auditor or Other Adjustments		(3,783,839)	(3,717,112)
Total Market Value of Assets		\$ 1,079,814,993	\$ 898,658,766

SECTION 1 - PRINCIPAL VALUATION RESULTS

Fiscal Year Ended December 31	Fiduciary Net Position		2021	2020
Asset Activity				
Market value as of beginning of year	\$	898,658,766	\$	800,739,275
Contributions - employer		73,946,616		67,269,029
Contributions - member		38,567,322		35,391,500
Net investment income		177,961,091		97,497,004
Benefit payments, including refunds of member contributions		(99,647,598)		(93,751,426)
Administrative expenses		(1,125,229)		(1,045,530)
Other		(8,545,975)		(7,441,086)
Market Value as of end of year		\$ 1,079,814,993		\$ 898,658,766
Money-Weighted Rate of Return				
		19.74%		12.03%
(Gain) / Loss on Pension Plan Investments				
Projected earnings	\$	67,386,787	\$	61,180,238
Actual earnings		177,961,091		97,497,004
(Gain) / Loss on pension plan investments	\$	(110,574,304)	\$	(36,316,766)

SECTION 1 - PRINCIPAL VALUATION RESULTS

Total Pension Liability

The Total Pension Liability, developed using the Entry Age Normal funding method, is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service. The total pension liability as of the December 31, 2021 measurement date was developed from an actuarial valuation as of January 1, 2020 and rolled forward to the pension plan's fiscal year-end.

The Service Cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year. Only active employees who have not reached the age at which the probability of retirement is 100% incur a service cost.

Actuarial gains and losses arise from the difference between estimates and actual experience, excluding amounts related to benefit changes and changes in assumptions or other inputs.

The development of the Total Pension Liability from the beginning of the measurement period, December 31, 2020 to the end of the measurement period, December 31, 2021 is shown below:

Measurement Date	December 31, 2021
1. Total Pension Liability, beginning of year:	
a. Actives	\$ 896,018,289
b. Retired and Disabled Members and Beneficiaries	862,552,083
c. Inactive Members	28,488,541
d. Total Pension Liability at 7.5% (a. + b. + c.)	\$ 1,787,058,913
2. Service Cost	\$ 51,147,819
3. Benefit Payments	(99,647,598)
4. Interest [7.5% x (1.d. + 2. + .5 x 3)]	\$ 134,128,720
5. Changes of benefit terms	-
6. Differences between expected and actual experience	-
7. Changes of assumptions or other inputs	49,140,442
8. Total Pension Liability, end of year (1.d. + 2. + 3. + 4. + 5. + 6. + 7.)	
a. Actives	\$ 1,051,769,797
b. Retired and Disabled Members and Beneficiaries	839,575,595
c. Inactive Members	30,482,904
d. Total Pension Liability at 7.25% (a. + b. + c.)	\$ 1,921,828,296

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Plan Description

Plan administration

The Worcester Regional Retirement System (the "System") is a cost-sharing, multiple-employer defined benefit pension plan that provides pensions for eligible employees of 99 participating employers. The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws. The System does not have the authority to amend benefit provisions.

The System is governed by a Retirement Board made up of five elected and appointed members.

Plan membership

At December 31, 2021, pension plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefits	4,112
Inactive plan members entitled to but not yet receiving benefits	2,714
Active plan members	7,121
	<hr/>
	13,947

Benefits provided

The System provides retirement, disability and death benefits. Retirement benefits are determined as a percentage of the member's 3-year (5-year for members hired after April 1, 2012) final average compensation times the member's years of service. The percentage is based on the age of the member at retirement and his or her Group classification. Cost-of-living adjustments of 3% of the first \$16,000 of the annual retirement allowance are provided at the discretion of the System's Retirement Board. A summary of the benefits is outlined in the January 1, 2020 actuarial valuation report.

Contributions

Plan members are required to contribute a percentage of their annual compensation that varies according to their membership date, as follows:

Prior to 1975	5% of Salary
1975 - 1983	7% of Salary
1984 - June 30, 1996	8% of Salary
July 1, 1996 - present	9% of Salary
1979 - present	An additional 2% of Salary in excess of \$30,000.
Group 1 members hired on or after April 2, 2012	6% of Salary with 30 or more years of creditable service.

Employer contributions are determined in accordance with the requirements set forth in Section 22D and Section 22F of Chapter 32 of the Massachusetts General Laws ("M.G.L."). The appropriation is comprised of the annual employer normal cost and amortization payments to pay the unfunded actuarial accrued liability.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Net Pension Liability

The components of the Net Pension Liability at December 31, 2021, were as follows:

Total Pension Liability	\$ 1,921,828,296
Fiduciary Net Position	(1,079,814,993)
Net Pension Liability	\$ 842,013,303

Fiduciary Net Position as a percentage of the Total Pension Liability 56.2%

Actuarial assumptions

The Total Pension Liability was determined by an actuarial valuation as of January 1, 2020, rolled forward to the measurement date of December 31, 2021 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.4% per year
Salary increases	Group 1: 6% - 4.25%, based on service Group 4: 7% - 4.75%, based on service
Investment rate of return	7.25%, net of pension plan investment expense, including inflation

Mortality rates were based on the RP-2014 Blue Collar Mortality Table with full generational mortality improvement using Scale MP-2020. For disabled lives, the mortality rates were based on the RP-2014 Blue Collar Mortality Table set forward one year with full generational mortality improvement using Scale MP-2020.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Long-Term Real Rates of Return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2021 (see the discussion of the pension plan's investment policy) are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rates of Return¹
Global Equity	38%	4.22%
Core Fixed Income	15%	0.70%
Value-Added Fixed Income	8%	4.00%
Private Equity	15%	7.70%
Real Estate	10%	3.60%
Timberland	4%	4.20%
Portfolio Completion (PCS)	10%	3.00%
Total	100%	

¹ Provided by NEPC, Inc. (inclusive of fees). Inflation of 2.4% is added to the long-term expected real rates of return to approximate the long-term expected rate of return.

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Discount Rate

The discount rate used to measure the Total Pension Liability is 7.25%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rates and that contributions from participating employers will be made in accordance with Sections 22D and 22F of Chapter 32 of the Massachusetts General Laws. Based on those assumptions, the pension plan's Fiduciary Net Position was projected to be available to make all projected benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate:

The following presents the Net Pension Liability calculated using the discount rate of 7.25%, as well as what the Net Pension Liability would be if it were calculated using a discount rate 1-percentage point lower (6.25%) or 1-percentage point higher (8.25%) than the current rate:

	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Total Pension Liability	\$ 2,141,951,516	\$ 1,921,828,296	\$ 1,735,829,254
Fiduciary Net Position	1,079,814,993	1,079,814,993	1,079,814,993
Net Pension Liability	\$ 1,062,136,523	\$ 842,013,303	\$ 656,014,261

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.1 - Changes in Net Pension Liability and Related Ratios

Fiscal Year Ended December 31	2021	2020	2019	2018	2017
Total Pension Liability					
Service cost	\$ 51,147,819	\$ 47,971,080	\$ 45,464,593	\$ 44,445,482	\$ 42,736,040
Interest	134,128,720	129,435,294	123,507,870	118,116,251	112,224,318
Changes of benefit terms	-	-	-	-	-
Differences between expected and actual experience	-	(23,171,133)	-	(8,110,737)	-
Changes of assumptions	49,140,442	35,705,832	17,826,312	-	-
Benefit payments, including refunds of member contributions	(99,647,598)	(93,751,426)	(88,229,714)	(83,571,930)	(77,717,794)
Net change in Total Pension Liability	<u>\$ 134,769,383</u>	<u>\$ 96,189,647</u>	<u>\$ 98,569,061</u>	<u>\$ 70,879,066</u>	<u>\$ 77,242,564</u>
Total Pension Liability--beginning	<u>\$ 1,787,058,913</u>	<u>\$ 1,690,869,266</u>	<u>\$ 1,592,300,205</u>	<u>\$ 1,521,421,139</u>	<u>\$ 1,444,178,575</u>
Total Pension Liability--ending (a)	<u><u>\$ 1,921,828,296</u></u>	<u><u>\$ 1,787,058,913</u></u>	<u><u>\$ 1,690,869,266</u></u>	<u><u>\$ 1,592,300,205</u></u>	<u><u>\$ 1,521,421,139</u></u>
Fiduciary Net Position					
Contributions--employer	\$ 73,946,616	\$ 67,269,029	\$ 60,887,972	\$ 55,674,504	\$ 50,599,326
Contributions--member	38,567,322	35,391,500	35,087,583	33,362,836	31,592,837
Net investment income	177,961,091	97,497,004	110,458,217	(17,770,572)	103,123,070
Benefit payments, including refunds of member contributions	(99,647,598)	(93,751,426)	(88,229,714)	(83,571,930)	(77,717,794)
Administrative expenses	(1,125,229)	(1,045,530)	(1,112,640)	(1,178,272)	(1,145,509)
Other	(8,545,975)	(7,441,086)	(1,890,156)	(6,971,840)	(7,043,455)
Net change in Fiduciary Net Position	<u>\$ 181,156,227</u>	<u>\$ 97,919,491</u>	<u>\$ 115,201,262</u>	<u>\$ (20,455,274)</u>	<u>\$ 99,408,475</u>
Fiduciary Net Position--beginning	<u>\$ 898,658,766</u>	<u>\$ 800,739,275</u>	<u>\$ 685,538,013</u>	<u>\$ 705,993,287</u>	<u>\$ 606,584,812</u>
Fiduciary Net Position--ending (b)	<u><u>\$ 1,079,814,993</u></u>	<u><u>\$ 898,658,766</u></u>	<u><u>\$ 800,739,275</u></u>	<u><u>\$ 685,538,013</u></u>	<u><u>\$ 705,993,287</u></u>
Net Pension Liability and Related Ratios					
Net Pension Liability--ending (a) -- (b)	<u><u>\$ 842,013,303</u></u>	<u><u>\$ 888,400,147</u></u>	<u><u>\$ 890,129,991</u></u>	<u><u>\$ 906,762,192</u></u>	<u><u>\$ 815,427,852</u></u>
Fiduciary Net Position as a percentage of the Total Pension Liability	56.19%	50.29%	47.36%	43.05%	46.40%
Covered Payroll	\$ 316,455,433	\$ 321,050,145	\$ 301,686,927	\$ 273,888,022	\$ 271,037,131
Net Pension Liability as a percentage of Covered Payroll	266.08%	276.72%	295.05%	331.07%	300.85%

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.1 - Changes in Net Pension Liability and Related Ratios (continued)

Fiscal Year Ended December 31	2016	2015	2014	2013	2012
Total Pension Liability					
Service cost	\$ 35,984,130	\$ 31,996,981	\$ 31,996,981		
Interest	99,124,367	91,276,045	84,568,061		
Changes of benefit terms	-	\$ 49,721,211	\$ -		
Differences between expected and actual experience	8,235,183	-	-		
Changes of assumptions	94,194,565	\$ 31,534,870	\$ -		
Benefit payments, including refunds of member contributions	(72,799,275)	(68,086,158)	(61,338,289)		
Net change in Total Pension Liability	<u>\$ 164,738,970</u>	<u>\$ 136,442,949</u>	<u>\$ 55,226,753</u>		
Total Pension Liability--beginning	<u>\$ 1,279,439,605</u>	<u>\$ 1,142,996,656</u>	<u>\$ 1,087,769,903</u>		
Total Pension Liability--ending (a)	<u><u>\$ 1,444,178,575</u></u>	<u><u>\$ 1,279,439,605</u></u>	<u><u>\$ 1,142,996,656</u></u>		
Fiduciary Net Position					
Contributions--employer	\$ 48,574,831	\$ 44,986,040	\$ 39,519,038		
Contributions--member	29,032,767	52,111,046	27,066,085		
Net investment income	40,509,286	\$ 1,177,960	\$ 40,135,521		
Benefit payments, including refunds of member contributions	(72,799,275)	(68,086,158)	(61,338,289)		
Administrative expenses	(1,170,184)	\$ (1,055,662)	\$ (1,054,297)		
Other	(7,195,247)	(7,429,438)	(3,178,354)		
Net change in Fiduciary Net Position	<u>\$ 36,952,178</u>	<u>\$ 21,703,788</u>	<u>\$ 41,149,704</u>		
Fiduciary Net Position--beginning	<u>\$ 569,632,634</u>	<u>\$ 547,928,846</u>	<u>\$ 506,779,142</u>		
Fiduciary Net Position--ending (b)	<u><u>\$ 606,584,812</u></u>	<u><u>\$ 569,632,634</u></u>	<u><u>\$ 547,928,846</u></u>		
Net Pension Liability and Related Ratios					
Net Pension Liability--ending (a) -- (b)	<u><u>\$ 837,593,763</u></u>	<u><u>\$ 709,806,971</u></u>	<u><u>\$ 595,067,810</u></u>		
Fiduciary Net Position as a percentage of the Total Pension Liability	42.00%	44.52%	47.94%		
Covered Payroll	\$ 282,918,805	\$ 269,899,678	\$ 252,829,591		
Net Pension Liability as a percentage of Covered Payroll	296.05%	262.99%	235.36%		

Note: Only 8 years are presented here and on the previous page, beginning with the year of implementation; 10 years of information will be required.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.2 - Schedule of Employer Contributions

Fiscal Year Ended December 31	2021	2020	2019	2018	2017
Actuarially Determined Contribution	\$ 73,946,616	\$ 67,269,029	\$ 60,887,972	\$ 55,674,504	\$ 50,599,326
Contributions in relation to the Actuarially Determined Contribution	<u>73,946,616</u>	<u>67,269,029</u>	<u>60,887,972</u>	<u>55,674,504</u>	<u>50,599,326</u>
Contribution deficiency (excess)	<u>\$ -</u>				
Covered Payroll	\$ 316,455,433	\$ 321,050,145	\$ 301,686,927	\$ 273,888,022	\$ 271,037,131
Contributions as a percentage of Covered Payroll	23.37%	20.95%	20.18%	20.33%	18.67%

The contribution shown above, \$73,946,616, represents the actual contributions made by member units of the Worcester Regional Retirement System for the 2022 fiscal year.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.2 - Schedule of Employer Contributions (continued)

Fiscal Year Ended December 31	2016	2015	2014	2013	2012
Actuarially Determined Contribution	\$ 48,574,831	\$ 44,986,040	\$ 39,519,038		
Contributions in relation to the Actuarially Determined Contribution	<u>48,574,831</u>	<u>\$ 44,986,040</u>	<u>\$ 39,519,038</u>		
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>		
Covered Payroll	\$ 282,918,805	\$ 269,899,678	\$ 252,829,591		
Contributions as a percentage of Covered Payroll	17.17%	16.67%	15.63%		

Note: Only 8 years are presented here and on the previous page, beginning with the year of implementation; 10 years of information will be required.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Exhibit 3.3 - Investment Returns

Fiscal Year Ended December 31	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Annual money-weighted rate of return, net of investment expense	19.74%	12.03%	16.55%	-2.75%	16.71%	7.06%	0.05%	7.79%		

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. The rate of return is then calculated by solving, through an iterative process, for the rate that equates the sum of the weighted external cash flows into and out of the pension plan investments to the ending fair value of pension plan investments.

Appendix A shows the details of the calculation of the money-weighted rate of return for the current fiscal year.

Note: Only 8 years are presented here, beginning with the year of implementation; 10 years of information will be required.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Notes to the Required Supplementary Information

Changes of benefit terms

All benefit provisions remained the same from the prior measurement date. The Plan provisions used in these disclosures are detailed in Section 5, Summary of Plan Provisions, in the most recent funding actuarial report.

Changes of assumptions

Most of the Actuarial Assumptions and Methods used in these disclosures are the same as the last measurement date, except the investment rate of return assumption decreased from 7.50% to 7.25% and the mortality table and mortality improvement rates were updated. The Actuarial Assumptions and Methods used in these disclosures are detailed in Section 6, Actuarial Assumptions and Methods, in the most recent funding valuation report.

Methods and assumptions used in calculations of Actuarially Determined Contributions

The Actuarially Determined Contributions in the schedule of employers' contributions shown in Exhibit 4.3 are calculated as of July 1 of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contributions reported in that schedule:

Valuation date	January 1, 2020
Actuarial cost method	Entry Age Normal
Amortization method	UAAL Increasing dollar amount at 4% to reduce the Unfunded Actuarial Accrued Liability to zero on or before June 30, 2036. The annual increase in appropriation is further limited to 9.95%. 2002, Increasing dollar amount at 4.5% to reduce the 2003 ERI 2002 and 2003 ERI Actuarial Accrued Liability to zero on or before June 30, 2028.
Asset valuation method	The Actuarial Value of Assets is the market value of assets as of the valuation date reduced by the sum of: a) 80% of gains and losses of the prior year, b) 60% of gains and losses of the second prior year, c) 40% of gains and losses of the third prior year, and d) 20% of gains and losses of the fourth prior year.

Investment gains and losses are determined by the excess or deficiency of the expected return over the actual return on the market value. The actuarial valuation of assets is further constrained to be not less than 80% or more than 120% of market value.

SECTION 3 - REQUIRED SUPPLEMENTARY INFORMATION

Notes to the Required Supplementary Information

Inflation	2.4% per year
Salary increases	Group 1: 6% - 4.25%, based on service Group 4: 7% - 4.75%, based on service
Payroll growth	3.5% per year
Investment rate of return	7.65%, net of pension plan investment expense, including inflation.

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.1 - Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred Outflows of Resources and Deferred Inflows of Resources arising from differences between expected and actual experience are recognized in Pension Expense over the average expected remaining service life of all active and inactive members.

					Balances at December 31, 2021	
Year	Experience Losses	Experience Gains	Amounts Recognized in Pension Expense through December 31, 2021	Deferred Outflows of Resources	Deferred Inflows of Resources	
Year	(a)	(b)	(c)	(a) - (c)	(b) + (c)	
2016	\$ 8,235,183	\$ -	\$ 8,235,183	\$ -	\$ -	
2017	-	-	-	-	-	
2018	-	8,110,737	(5,555,300)	-	2,555,437	
2019	-	-	-	-	-	
2020	-	23,171,133	(8,115,984)	-	15,055,149	
2021	-	-	-	-	-	
Total				\$ -	\$ 17,610,586	

Deferred Outflows of Resources and Deferred Inflows of Resources arising from changes of assumptions are recognized in Pension Expense over the average expected remaining service life of all active and inactive members.

					Balances at December 31, 2021	
Year	Increases in the Total Pension Liability	Decreases in the Total Pension Liability	Amounts Recognized in Pension Expense through December 31, 2021	Deferred Outflows of Resources	Deferred Inflows of Resources	
Year	(a)	(b)	(c)	(a) - (c)	(b) + (c)	
2016	\$ 94,194,565	\$ -	\$ 94,194,565	\$ -	\$ -	
2017	-	-	-	-	-	
2018	-	-	-	-	-	
2019	17,826,312	-	9,157,353	8,668,959	-	
2020	35,705,832	-	12,506,422	23,199,410	-	
2021	49,140,442	-	8,606,032	40,534,410	-	
Total				\$ 72,402,779	\$ -	

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.1 - Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred Outflows of Resources and Deferred Inflows of Resources arising from differences between projected and actual earnings on Pension Plan investments are recognized in Pension Expense over five years.

				Balances at December 31, 2021	
Year	Investment Earnings Less Than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense through December 31, 2021 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) + (c)
2016	\$ 3,499,405	\$ -	\$ 3,499,405	\$ -	\$ -
2017	-	56,256,688	(56,256,688)	-	-
2018	72,217,350	-	57,773,880	14,443,470	-
2019	-	57,470,605	(34,482,363)	-	22,988,242
2020	-	36,316,766	(14,526,706)	-	21,790,060
2021	-	110,574,304	(22,114,861)	-	88,459,443
Subtotal				<u>\$ 14,443,470</u>	<u>\$133,237,745</u>
Net				<u>\$ -</u>	<u>\$118,794,275</u>

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.1 - Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred Outflows of Resources and Deferred Inflows of Resources arising from changes in proportion and differences between employer contributions and proportionate share of contributions are recognized in Pension Expense over the average expected remaining service life of all active and inactive members.

				Balances at December 31, 2021	
Year	Proportionate Share* Outflows	Proportionate Share* Inflows	Amounts Recognized in Pension Expense through December 31, 2021	Deferred Outflows of Resources	Deferred Inflows of Resources
Year	(a)	(b)	(c)	(a) - (c)	(b) - (c)
2016	\$ 1,803,974	\$ 1,803,974	\$ 1,803,974	\$ -	\$ -
2017	22,317,342	22,317,342	19,042,099	3,275,243	3,275,243
2018	2,319,170	2,319,170	1,588,474	730,696	730,696
2019	12,790,409	12,790,409	6,570,419	6,219,990	6,219,990
2020	2,440,894	2,440,894	854,953	1,585,941	1,585,941
2021	15,038,822	15,038,822	2,633,768	12,405,054	12,405,054
Total				<u>\$ 24,216,924</u>	<u>\$ 24,216,924</u>

* Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources will be recognized in Pension Expense as follows:

Year ended December 31		
2022	\$	(13,963,988)
2023	\$	(28,185,245)
2024	\$	(16,012,907)
2025	\$	(11,950,224)
2026	\$	6,110,282
Thereafter	\$	-
Total Deferred Outflows	\$	96,619,703
Total Deferred Inflows	\$	160,621,785

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.2 - Pension Expense

The Pension Expense and deferred outflows and inflows of resources primarily result from changes in the components of the net pension liability (NPL). Most changes in the NPL are included in the Pension Expense in the period of the change, including service cost, interest on total pension liability, changes in benefit terms and projected earnings on the pension plan's investments. Other changes in the net pension liability are included in Pension Expense over the current and future periods. These include the effects on the total pension liability of changes of economic and demographic assumptions and differences between expected and actual experience. In addition, the effect on the net pension liability of differences between the projected earnings on pension plan investments and actual experience with regard to those earnings are included in Pension Expense over the current and future periods. The Pension Expense for the reporting period ending December 31, 2021 is presented below:

Fiscal Year Ended December 31, 2021

1. Service cost		\$ 51,147,819
2. Interest on the total pension liability		
a. Total Pension Liability, beginning of year	1,787,058,913	
b. Service cost, beginning of year	51,147,819	
c. Benefit payments, including refunds of employee contributions	<u>(99,647,598)</u>	
d. Interest on Total Pension Liability		134,128,720
3. Differences between expected and actual experience		(4,238,239)
4. Changes of benefit terms		-
5. Changes of assumptions		31,735,469
6. Employee contributions		(38,567,322)
7. Projected earnings on pension plan investments		
a. Fiduciary Net Position, beginning of year	898,658,766	
b. Employer contributions	73,946,616	
c. Employee contributions	38,567,322	
d. Benefit payments, including refunds of employee contributions	<u>(99,647,598)</u>	
e. Administrative expenses and other	<u>(9,671,204)</u>	
f. Total projected earnings		(67,386,787)
8. Differences between projected and actual earnings on plan investments		(37,680,202)
9. Pension plan administrative expenses		1,125,229
10. Other changes in Fiduciary Net Position		<u>8,545,975</u>
11. Total Pension Expense		<u>\$ 78,810,662</u>

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2021 and 2020, based on employer contributions made for the 2022 fiscal year and 2021 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2021		2020	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Ashburnham	1,035,010	1.399672%	880,527	1.308963%
Ashburnham-Westminster Regional	791,626	1.070537%	725,901	1.079101%
Athol	1,802,550	2.437637%	1,633,931	2.428950%
Athol Housing Authority	44,249	0.059839%	38,518	0.057260%
Athol-Royalston Regional	670,136	0.906243%	621,513	0.923921%
Auburn	3,900,522	5.274781%	3,559,783	5.291860%
Auburn Housing Authority	77,473	0.104769%	70,867	0.105349%
Auburn Water District	118,050	0.159642%	101,938	0.151538%
Barre	410,048	0.554519%	357,853	0.531973%
Barre Housing Authority	30,207	0.040850%	20,935	0.031121%
Berlin	551,425	0.745707%	533,288	0.792769%
Berlin-Boylston Regional	319,456	0.432009%	178,269	0.265009%
Blackstone	920,201	1.244413%	928,294	1.379972%
Blackstone Housing Authority	18,702	0.025291%	19,306	0.028700%
Blackstone-Millville Regional	610,102	0.825057%	581,897	0.865030%
Bolton	602,296	0.814501%	520,648	0.773979%
Boylston	705,353	0.953868%	723,109	1.074951%
Boylston Water District	14,790	0.020001%	13,583	0.020192%
Brookfield	364,534	0.492969%	314,618	0.467701%
Charlton	1,725,580	2.333548%	1,491,343	2.216983%
Cherry Valley-Rochdale Water	65,335	0.088354%	60,980	0.090651%
Cherry Valley Sewer District	-	0.000000%	-	0.000000%
Douglas	1,277,098	1.727054%	1,192,372	1.772542%
Dudley	1,091,367	1.475885%	955,135	1.419873%
Dudley Housing Authority	22,528	0.030465%	17,758	0.026398%
Dudley-Charlton Regional	1,229,539	1.662739%	1,129,966	1.679772%
East Brookfield	185,493	0.250847%	169,117	0.251404%
Grafton	2,348,007	3.175273%	2,074,425	3.083774%
Grafton Housing Authority	55,802	0.075463%	56,940	0.084645%
Hardwick	218,312	0.295229%	210,913	0.313537%
Harvard	1,128,337	1.525881%	1,001,439	1.488707%
Hillcrest Water District	10,010	0.013537%	3,994	0.005937%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2021 and 2020, based on employer contributions made for the 2022 fiscal year and 2021 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2021		2020	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Holden	2,690,938	3.639028%	2,391,040	3.554444%
Holden Housing Authority	23,264	0.031461%	36,390	0.054096%
Hopedale	1,201,711	1.625106%	1,067,572	1.587019%
Hopedale Housing Authority	3,365	0.004551%	5,723	0.008508%
Hubbardston	323,533	0.437522%	273,567	0.406676%
Lancaster	760,156	1.027979%	728,019	1.082250%
Lancaster Housing Authority	15,694	0.021223%	17,401	0.025868%
Lancaster Sewer	2,778	0.003757%	2,172	0.003229%
Leicester	1,556,343	2.104685%	1,456,243	2.164805%
Leicester Housing Authority	60,068	0.081232%	52,455	0.077978%
Leicester Water District	56,036	0.075779%	53,115	0.078959%
Lunenburg	1,531,070	2.070507%	1,502,144	2.233040%
Lunenburg Housing Authority	2,372	0.003208%	1,816	0.002700%
Lunenburg Water District	66,753	0.090272%	66,460	0.098797%
Mendon	828,542	1.120460%	717,711	1.066926%
Mendon-Upton Regional	924,930	1.250808%	855,158	1.271251%
Millbury	2,200,435	2.975708%	2,027,136	3.013476%
Millbury Housing Authority	115,397	0.156054%	107,298	0.159506%
Millville	211,847	0.286486%	189,731	0.282048%
Narragansett Regional	565,061	0.764147%	440,722	0.655163%
Nashoba Regional	1,210,965	1.637621%	1,146,017	1.703632%
Nashoba Valley Dispatch	56,172	0.075963%	42,695	0.063469%
New Braintree	65,854	0.089056%	64,267	0.095537%
Northboro	2,548,279	3.446106%	2,356,175	3.502615%
Northboro Housing Authority	81,206	0.109817%	75,236	0.111843%
Northboro-Southboro Regional	518,953	0.701794%	434,691	0.646198%
North Brookfield	661,563	0.894649%	568,015	0.844393%
North Brookfield Housing Authority	21,896	0.029611%	18,365	0.027301%
Oakham	77,089	0.104250%	78,584	0.116820%
Oxford	2,476,316	3.348789%	2,188,260	3.252998%
Oxford Housing Authority	85,990	0.116287%	83,797	0.124570%
Oxford-Rochdale Sewer District	42,156	0.057009%	37,828	0.056234%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2021 and 2020, based on employer contributions made for the 2022 fiscal year and 2021 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2021		2020	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Paxton	914,200	1.236297%	837,612	1.245167%
Petersham	185,492	0.250846%	174,811	0.259868%
Phillipston	150,222	0.203149%	149,318	0.221971%
Princeton	471,980	0.638271%	408,817	0.607734%
Quabbin Regional	1,230,031	1.663404%	1,147,408	1.705700%
Quaboag Regional	435,854	0.589417%	401,099	0.596261%
Royalston	65,881	0.089093%	63,203	0.093956%
Rutland	775,974	1.049371%	684,053	1.016891%
Southboro	2,321,536	3.139476%	2,170,625	3.226782%
Southboro Housing Authority	30,823	0.041683%	16,500	0.024528%
Spencer	1,092,846	1.477885%	978,163	1.454106%
Spencer-East Brookfield Regional	714,866	0.966733%	667,641	0.992494%
Spencer Housing Authority	61,064	0.082578%	51,695	0.076848%
Sterling	1,256,404	1.699069%	1,196,875	1.779236%
Sterling Housing Authority	11,448	0.015481%	6,246	0.009285%
Sturbridge	1,674,824	2.264910%	1,501,694	2.232371%
Sutton	1,419,336	1.919406%	1,314,568	1.954195%
Tantasqua Regional	819,211	1.107841%	794,242	1.180695%
Templeton	964,560	1.304400%	887,221	1.318915%
Templeton Housing Authority	54,770	0.074067%	46,383	0.068951%
Upton	757,724	1.024691%	696,704	1.035698%
Uxbridge	2,194,484	2.967660%	2,051,032	3.048999%
Uxbridge Housing Authority	69,494	0.093979%	59,854	0.088977%
Wachusett Regional	2,350,170	3.178198%	2,081,419	3.094171%
Warren	462,757	0.625799%	402,654	0.598573%
Warren Water District	22,179	0.029993%	19,509	0.029001%
Westboro	5,057,623	6.839560%	4,500,066	6.689655%
Westboro Housing Authority	56,435	0.076319%	51,300	0.076261%
West Boylston	1,514,443	2.048022%	1,432,352	2.129289%
West Boylston Housing Authority	18,422	0.024913%	6,244	0.009282%
West Boylston Water District	76,511	0.103468%	73,490	0.109248%
West Brookfield	336,330	0.454828%	322,339	0.479179%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.3 - Proportionate Share of Contributions

The basis of an employer's allocation of the collective pension amount is consistent with the manner in which contributions to the plan are made. The schedule of employer allocations for 2021 and 2020, based on employer contributions made for the 2022 fiscal year and 2021 fiscal year, respectively, shows the proportionate relationship of each employer to all employers and each employer's allocation percentage.

Entity	2021		2020	
	Employer Contribution	Proportionate Share of Total Employer Contribution	Employer Contribution	Proportionate Share of Total Employer Contribution
Westminster	1,039,322	1.405503%	963,834	1.432805%
Winchendon	1,865,573	2.522865%	1,706,683	2.537101%
Winchendon Housing Authority	142,957	0.193325%	128,412	0.190893%
Total	73,946,616	100.000000%	67,269,029	100.000000%

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.4 - Pension Amounts by Employer

The Schedule of Pension Amounts by Employer is provided in Appendix C. The schedule shows the Net Pension Liability, the various categories of Deferred Outflows of Resources and Deferred Inflows of Resources and Pension Expense for each employer. The schedule includes the differences between expected and actual experience, differences between projected and actual investment earnings and changes of assumptions. Further, each employer is required to recognize Deferred Outflows of Resources and Deferred Inflows of Resources related to (1) the net impact from changes in proportion between periods and (2) differences between actual contributions made by an employer and their proportionate share of contributions.

Each employer's allocation of Pension Expense and Net Pension Liability can be based on the proportion of its contributions to the aggregate amount of employer contributions.

Under GASB 68, gains and losses (investment, experience or assumption changes) and changes in employer's proportionate shares related to pensions are recognized in Pension Expense systematically over time.

The first amortized amounts are recognized in Pension Expense for the year the gain or loss occurs. The remaining amounts are categorized as Deferred Inflows and Deferred Outflows to be recognized in future Pension Expense.

The amortization period differs depending on the source of the gain or loss:

Difference between projected and actual earnings	5 year straight-line amortization
All other amounts	Straight-line amortization over the average expected remaining service lives of all members that are provided with benefits (actives, inactives and retirees) as of the beginning of the measurement period

For 2021:

- ◆ Net Pension Liability, Deferred Outflows of Resources, Deferred Inflows of Resources and Pension Expense are allocated to each employer based on its proportionate share of Total Employer Contribution shown in Exhibit 4.3.
- ◆ The difference between expected and actual experience is amortized over the average of the expected future service lives of all participants, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in Pension Expense in 2015.
- ◆ Net difference between projected and actual investment earnings (gain on pension plan investments for 2021) is amortized over 5 years, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in Pension Expense in 2014.
- ◆ The change in Total Pension Liability as a result of changes in assumptions is amortized over the average of the expected future service lives of all participants, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in Pension Expense in 2015.

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.4 - Pension Amounts by Employer

For 2021 (continued):

- ◆ There are no differences between employer contributions and the proportionate share of contributions because the Plan utilizes employer contributions as the method of allocation.

- ◆ The net effect of the change in the employer's proportionate shares of the collective Net Pension Liability, collective Deferred Outflows and Deferred Inflows is amortized over the average expected remaining service lives of all members, with the first amortized amount recognized in Pension Expense in the current year. Similar Deferred Outflows of Resources and Deferred Inflows of Resources were established during prior years, with the first amortized amount recognized in 2015.

- ◆ No adjustments have been made for employer contributions made subsequent to the measurement date as defined in paragraph 57 of GASB 68.

SECTION 5 - GLOSSARY OF TERMS

Actuarial Assumptions – Assumptions, based upon past experience or standard tables, used to predict the occurrence of future events affecting the commencement, amount and duration of pension benefits, such as: changes in compensation, mortality, withdrawal, disablement and retirement; rates of investment earnings and asset appreciation or depreciation; and any other relevant items.

Actuarial Cost Method (or Funding Method) – A procedure for allocating the Actuarial Present Value of projected benefit payments to the current year (Service Cost) and the past (Total Pension Liability).

Actuarial (Experience) Gain or Loss – A measure of the difference between actual experience and that expected based upon the set of Actuarial Assumptions during the period between the valuation date and the most recent immediately preceding valuation date.

Actuarial Present Value of Projected Benefit Payments – The dollar value on the valuation date of all benefits expected to be paid to current members based upon the Actuarial Assumptions and the terms of the Plan.

Actuarially Determined Contribution – A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Actuarial Valuation Date – The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

Covered Payroll – The payroll on which contributions to a pension plan are based.

Deferred Inflow of Resources – Acquisition of resources by a government that is applicable to future reporting periods. Under GASB 68, deferred inflows of resources are made up of experience gains, assumption changes reducing the Total Pension Liability and investment gains that are recognized in future reporting periods.

Deferred Outflow of Resources – Consumption of resources by a government that is applicable to future reporting periods. Under GASB 68, deferred outflows of resources are made up of experience losses, assumption changes increasing the Total Pension Liability and investment losses that are recognized in future reporting periods.

Discount Rate – Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:

- (1) a long-term expected rate of return on pension plan investments *to the extent that the pension plan's assets are sufficient to pay benefits and pension plan assets are expected to be invested using a strategy to achieve that return and*
- (2) a tax-exempt, high-quality municipal bond rate *to the extent that the conditions for use of the long-term expected rate of return are not met.*

Entry Age Normal Actuarial Cost Method – A method under which the actuarial present value of the projected benefits of each individual in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age.

SECTION 5 - GLOSSARY OF TERMS

Fiduciary Net Position – The fair market value of assets as of the measurement date.

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

GASB – Governmental Accounting Standards Board.

Long-Term Expected Rate of Return – Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.

Measurement Date – The date as of which the Total Pension Liability and Fiduciary Net Position are measured.

Municipal Bond Rate – Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

Net Pension Liability – The liability of the employer for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Fiduciary Net Position.

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

Reporting Date – The last day of the Plan or employer's fiscal year.

Service Cost – The portion of the actuarial present value of projected benefit amounts that is attributed to a valuation year.

Total Pension Liability – The portion of the actuarial present value of projected benefit amounts that is attributed to past periods of employee service using the Entry Age Normal cost method based on the requirements of GASB 67 and GASB 68.

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

APPENDIX A - CALCULATION OF MONEY-WEIGHTED RATE OF RETURN

	Plan Investments/ Net External Cash Flows (a)	Periods Invested (b)	Period Weight (c)=(b)÷12	(d)=(a) x (1+r _{mw}) ^(c)
Beginning value - January 1, 2021	\$ 898,658,766	12	1.00	\$ 1,076,061,906
Monthly net external cash flows:				
January	(4,022,974)	11	0.92	(4,745,363)
February	(6,124,417)	10	0.83	(7,116,505)
March	(5,249,302)	9	0.75	(6,008,740)
April	(6,264,676)	8	0.67	(7,064,155)
May	(4,540,381)	7	0.58	(5,043,520)
June	(4,050,896)	6	0.50	(4,432,741)
July	63,443,972	5	0.42	68,389,808
August	(5,055,002)	4	0.33	(5,367,872)
September	(7,171,873)	3	0.25	(7,502,279)
October	(4,909,549)	2	0.17	(5,059,202)
November	(6,081,566)	1	0.08	(6,173,559)
December	(6,122,785)	0	0.00	(6,122,785)
Ending value - December 31, 2021				\$ 1,079,814,993
Money-weighted rate of return				19.74%

Note: Beginning and ending values are based on amounts reported in the System's 2021 Annual Statement with GAAP adjustments for 3(8)(c) amounts due to the Commonwealth, and monthly cash flows are based on amounts provided by the Retirement Board.

APPENDIX B - SCHEDULE OF DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

Year	Differences between Expected and Actual Experience	Recognition Period (Years)										
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2016	8,235,183	5.86	1,208,578	-	-	-	-	-	-	-	-	-
2017	-	5.86	-	-	-	-	-	-	-	-	-	-
2018	(8,110,737)	5.84	(1,388,825)	(1,388,825)	(1,166,612)	-	-	-	-	-	-	-
2019	-	5.84	-	-	-	-	-	-	-	-	-	-
2020	(23,171,133)	5.71	(4,057,992)	(4,057,992)	(4,057,992)	(4,057,992)	(2,881,173)	-	-	-	-	-
2021	-	5.71	-	-	-	-	-	-	-	-	-	-
Net Increase (Decrease) in Pension Expense			(4,238,239)	(5,446,817)	(5,224,604)	(4,057,992)	(2,881,173)	-	-	-	-	-

Year	Changes of Assumptions	Recognition Period (Years)										
			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2016	94,194,565	5.86	13,823,775	-	-	-	-	-	-	-	-	-
2017	-	5.86	-	-	-	-	-	-	-	-	-	-
2018	-	5.84	-	-	-	-	-	-	-	-	-	-
2019	17,826,312	5.84	3,052,451	3,052,451	3,052,451	2,564,057	-	-	-	-	-	-
2020	35,705,832	5.71	6,253,211	6,253,211	6,253,211	6,253,211	4,439,777	-	-	-	-	-
2021	49,140,442	5.71	8,606,032	8,606,032	8,606,032	8,606,032	8,606,032	6,110,282	-	-	-	-
Net Increase (Decrease) in Pension Expense			31,735,469	17,911,694	17,911,694	17,423,300	13,045,809	6,110,282	-	-	-	-

APPENDIX B - SCHEDULE OF DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2016	3,499,405	5	-	-	-	-	-	-	-	-	-	-
2017	(56,256,688)	5	(11,251,337)	-	-	-	-	-	-	-	-	-
2018	72,217,350	5	14,443,470	14,443,470	-	-	-	-	-	-	-	-
2019	(57,470,605)	5	(11,494,121)	(11,494,121)	(11,494,121)	-	-	-	-	-	-	-
2020	(36,316,766)	5	(7,263,353)	(7,263,353)	(7,263,353)	(7,263,354)	-	-	-	-	-	-
2021	(110,574,304)	5	(22,114,861)	(22,114,861)	(22,114,861)	(22,114,861)	(22,114,860)	-	-	-	-	-
Net Increase (Decrease) in Pension Expense			(37,680,202)	(26,428,865)	(40,872,335)	(29,378,215)	(22,114,860)	-	-	-	-	-

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Ashburnham
◆ Current Proportionate Share		1.399672%
◆ Prior Proportionate Share		1.308963%
Beginning Net Pension Liability	\$ 888,400,147	\$ 11,628,833
Ending Net Pension Liability	\$ 842,013,303	\$ 11,785,424
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,013,401
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	763,788
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,777,189
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 246,490
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,662,730
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	88,389
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,997,609
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,103,091
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	215,492
Total Employer Pension Expense	\$ 78,810,662	\$ 1,318,583
Covered Payroll:	\$ 316,455,433	\$ 3,686,781
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 11,785,424
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 14,866,426
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 9,182,047
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 6,614
◆ 2023	\$ (28,185,245)	\$ (281,156)
◆ 2024	\$ (16,012,907)	\$ (103,654)
◆ 2025	\$ (11,950,224)	\$ (29,389)
◆ 2026	\$ 6,110,282	\$ 187,165
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Ashburnham- Westminster Regional
◆ Current Proportionate Share		1.070537%
◆ Prior Proportionate Share		1.079101%
Beginning Net Pension Liability	\$ 888,400,147	\$ 9,586,738
Ending Net Pension Liability	\$ 842,013,303	\$ 9,014,065
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	775,099
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	69,874
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 844,973
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 188,528
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,271,737
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	87,765
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,548,030
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 843,697
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	57,303
Total Employer Pension Expense	\$ 78,810,662	\$ 901,000
Covered Payroll:	\$ 316,455,433	\$ 4,212,845
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 9,014,065
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 11,370,566
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 7,022,876
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (102,065)
◆ 2023	\$ (28,185,245)	\$ (323,480)
◆ 2024	\$ (16,012,907)	\$ (189,328)
◆ 2025	\$ (11,950,224)	\$ (144,003)
◆ 2026	\$ 6,110,282	\$ 55,819
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Athol
◆ Current Proportionate Share		2.437637%
◆ Prior Proportionate Share		2.428950%
Beginning Net Pension Liability	\$ 888,400,147	\$ 21,578,794
Ending Net Pension Liability	\$ 842,013,303	\$ 20,525,227
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,764,917
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	269,436
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 2,034,353
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 429,282
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,895,773
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,202,778
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 4,527,833
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,921,118
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(1,304,827)
Total Employer Pension Expense	\$ 78,810,662	\$ 616,291
Covered Payroll:	\$ 316,455,433	\$ 6,272,259
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 20,525,227
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 25,891,032
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 15,991,246
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (1,454,784)
◆ 2023	\$ (28,185,245)	\$ (626,422)
◆ 2024	\$ (16,012,907)	\$ (319,635)
◆ 2025	\$ (11,950,224)	\$ (251,319)
◆ 2026	\$ 6,110,282	\$ 158,680
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Athol Housing Authority
◆ Current Proportionate Share		0.059839%
◆ Prior Proportionate Share		0.057260%
Beginning Net Pension Liability	\$ 888,400,147	\$ 508,695
Ending Net Pension Liability	\$ 842,013,303	\$ 503,853
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	43,325
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	21,179
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 64,504
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 10,538
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	71,085
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	105,873
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 187,496
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 47,160
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(83,473)
Total Employer Pension Expense	\$ 78,810,662	\$ (36,313)
Covered Payroll:	\$ 316,455,433	\$ 279,213
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 503,853
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 635,573
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 392,553
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (79,915)
◆ 2023	\$ (28,185,245)	\$ (27,719)
◆ 2024	\$ (16,012,907)	\$ (18,817)
◆ 2025	\$ (11,950,224)	\$ (3,087)
◆ 2026	\$ 6,110,282	\$ 6,546
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Athol-Royalston Regional
◆ Current Proportionate Share		0.906243%
◆ Prior Proportionate Share		0.923921%
Beginning Net Pension Liability	\$ 888,400,147	\$ 8,208,120
Ending Net Pension Liability	\$ 842,013,303	\$ 7,630,686
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	656,145
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	52,616
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 708,761
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 159,595
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,076,565
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	831,095
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,067,255
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 714,216
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(744,357)
Total Employer Pension Expense	\$ 78,810,662	\$ (30,141)
Covered Payroll:	\$ 316,455,433	\$ 2,751,691
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 7,630,686
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 9,625,537
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 5,945,083
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (753,014)
◆ 2023	\$ (28,185,245)	\$ (312,996)
◆ 2024	\$ (16,012,907)	\$ (199,984)
◆ 2025	\$ (11,950,224)	\$ (128,064)
◆ 2026	\$ 6,110,282	\$ 35,564
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Auburn
◆ Current Proportionate Share		5.274781%
◆ Prior Proportionate Share		5.291860%
Beginning Net Pension Liability	\$ 888,400,147	\$ 47,012,894
Ending Net Pension Liability	\$ 842,013,303	\$ 44,414,357
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	3,819,088
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	894,198
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 4,713,286
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 928,920
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	6,266,138
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	277,105
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 7,472,163
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 4,157,090
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	540,054
Total Employer Pension Expense	\$ 78,810,662	\$ 4,697,144
Covered Payroll:	\$ 316,455,433	\$ 15,955,682
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 44,414,357
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 56,025,375
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 34,603,315
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (254,669)
◆ 2023	\$ (28,185,245)	\$ (1,386,019)
◆ 2024	\$ (16,012,907)	\$ (746,323)
◆ 2025	\$ (11,950,224)	\$ (675,033)
◆ 2026	\$ 6,110,282	\$ 303,167
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Auburn Housing Authority
◆ Current Proportionate Share		0.104769%
◆ Prior Proportionate Share		0.105349%
Beginning Net Pension Liability	\$ 888,400,147	\$ 935,917
Ending Net Pension Liability	\$ 842,013,303	\$ 882,167
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	75,856
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	6,460
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 82,316
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 18,450
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	124,459
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	22,598
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 165,507
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 82,569
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(234)
Total Employer Pension Expense	\$ 78,810,662	\$ 82,335
Covered Payroll:	\$ 316,455,433	\$ 277,532
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 882,167
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 1,112,788
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 687,298
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (16,513)
◆ 2023	\$ (28,185,245)	\$ (36,559)
◆ 2024	\$ (16,012,907)	\$ (22,682)
◆ 2025	\$ (11,950,224)	\$ (13,188)
◆ 2026	\$ 6,110,282	\$ 5,751
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Auburn Water District
◆ Current Proportionate Share		0.159642%
◆ Prior Proportionate Share		0.151538%
Beginning Net Pension Liability	\$ 888,400,147	\$ 1,346,262
Ending Net Pension Liability	\$ 842,013,303	\$ 1,344,209
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	115,585
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	65,371
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 180,956
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 28,114
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	189,646
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	83,224
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 300,984
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 125,815
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(17,154)
Total Employer Pension Expense	\$ 78,810,662	\$ 108,661
Covered Payroll:	\$ 316,455,433	\$ 474,611
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 1,344,209
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 1,695,618
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 1,047,276
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (39,406)
◆ 2023	\$ (28,185,245)	\$ (57,925)
◆ 2024	\$ (16,012,907)	\$ (35,585)
◆ 2025	\$ (11,950,224)	\$ (5,947)
◆ 2026	\$ 6,110,282	\$ 18,835
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Barre
◆ Current Proportionate Share		0.554519%
◆ Prior Proportionate Share		0.531973%
Beginning Net Pension Liability	\$ 888,400,147	\$ 4,726,048
Ending Net Pension Liability	\$ 842,013,303	\$ 4,669,123
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	401,487
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	227,368
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 628,855
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 97,654
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	658,737
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	46,991
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 803,382
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 437,020
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	57,598
Total Employer Pension Expense	\$ 78,810,662	\$ 494,618
Covered Payroll:	\$ 316,455,433	\$ 2,634,139
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 4,669,123
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 5,889,748
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 3,637,723
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (25,425)
◆ 2023	\$ (28,185,245)	\$ (125,713)
◆ 2024	\$ (16,012,907)	\$ (47,994)
◆ 2025	\$ (11,950,224)	\$ (34,542)
◆ 2026	\$ 6,110,282	\$ 59,147
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Barre Housing Authority
◆ Current Proportionate Share		0.040850%
◆ Prior Proportionate Share		0.031121%
Beginning Net Pension Liability	\$ 888,400,147	\$ 276,482
Ending Net Pension Liability	\$ 842,013,303	\$ 343,960
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	29,576
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	90,631
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 120,207
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 7,194
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	48,527
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	-
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 55,721
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 32,194
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	23,389
Total Employer Pension Expense	\$ 78,810,662	\$ 55,583
Covered Payroll:	\$ 316,455,433	\$ 63,121
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 343,960
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 433,880
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 267,980
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 17,186
◆ 2023	\$ (28,185,245)	\$ 9,588
◆ 2024	\$ (16,012,907)	\$ 13,325
◆ 2025	\$ (11,950,224)	\$ 10,989
◆ 2026	\$ 6,110,282	\$ 13,398
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Berlin
◆ Current Proportionate Share		0.745707%
◆ Prior Proportionate Share		0.792769%
Beginning Net Pension Liability	\$ 888,400,147	\$ 7,042,961
Ending Net Pension Liability	\$ 842,013,303	\$ 6,278,951
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	539,913
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	65,197
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 605,110
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 131,323
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	885,857
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	495,522
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,512,702
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 587,697
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(48,092)
Total Employer Pension Expense	\$ 78,810,662	\$ 539,605
Covered Payroll:	\$ 316,455,433	\$ 2,116,778
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 6,278,951
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 7,920,425
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 4,891,943
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (164,593)
◆ 2023	\$ (28,185,245)	\$ (335,654)
◆ 2024	\$ (16,012,907)	\$ (236,043)
◆ 2025	\$ (11,950,224)	\$ (164,131)
◆ 2026	\$ 6,110,282	\$ (7,171)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Berlin-Boylston Regional
◆ Current Proportionate Share		0.432009%
◆ Prior Proportionate Share		0.265009%
Beginning Net Pension Liability	\$ 888,400,147	\$ 2,354,341
Ending Net Pension Liability	\$ 842,013,303	\$ 3,637,573
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	312,786
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,433,960
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,746,746
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 76,079
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	513,202
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	5,943
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 595,224
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 340,469
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	339,018
Total Employer Pension Expense	\$ 78,810,662	\$ 679,487
Covered Payroll:	\$ 316,455,433	\$ 1,923,333
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 3,637,573
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 4,588,525
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 2,834,040
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 276,818
◆ 2023	\$ (28,185,245)	\$ 203,821
◆ 2024	\$ (16,012,907)	\$ 246,458
◆ 2025	\$ (11,950,224)	\$ 210,900
◆ 2026	\$ 6,110,282	\$ 213,525
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Blackstone
◆ Current Proportionate Share		1.244413%
◆ Prior Proportionate Share		1.379972%
Beginning Net Pension Liability	\$ 888,400,147	\$ 12,259,676
Ending Net Pension Liability	\$ 842,013,303	\$ 10,478,120
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	900,989
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	367,344
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,268,333
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 219,148
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,478,291
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,007,657
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,705,096
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 980,730
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	13,234
Total Employer Pension Expense	\$ 78,810,662	\$ 993,964
Covered Payroll:	\$ 316,455,433	\$ 4,162,321
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 10,478,120
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 13,217,361
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 8,163,524
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (182,609)
◆ 2023	\$ (28,185,245)	\$ (476,100)
◆ 2024	\$ (16,012,907)	\$ (339,711)
◆ 2025	\$ (11,950,224)	\$ (362,483)
◆ 2026	\$ 6,110,282	\$ (75,860)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Blackstone Housing Authority
◆ Current Proportionate Share		0.025291%
◆ Prior Proportionate Share		0.028700%
Beginning Net Pension Liability	\$ 888,400,147	\$ 254,968
Ending Net Pension Liability	\$ 842,013,303	\$ 212,955
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	18,312
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	4,481
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 22,793
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 4,454
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	30,045
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	45,056
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 79,555
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 19,932
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(6,798)
Total Employer Pension Expense	\$ 78,810,662	\$ 13,134
Covered Payroll:	\$ 316,455,433	\$ -
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 212,955
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 268,627
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 165,914
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (11,544)
◆ 2023	\$ (28,185,245)	\$ (19,505)
◆ 2024	\$ (16,012,907)	\$ (14,840)
◆ 2025	\$ (11,950,224)	\$ (8,598)
◆ 2026	\$ 6,110,282	\$ (2,275)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Blackstone-Millville Regional
◆ Current Proportionate Share		0.825057%
◆ Prior Proportionate Share		0.865030%
Beginning Net Pension Liability	\$ 888,400,147	\$ 7,684,924
Ending Net Pension Liability	\$ 842,013,303	\$ 6,947,093
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	597,364
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,695
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 599,059
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 145,297
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	980,121
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	394,143
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,519,561
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 650,233
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(144,755)
Total Employer Pension Expense	\$ 78,810,662	\$ 505,478
Covered Payroll:	\$ 316,455,433	\$ 2,735,085
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 6,947,093
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 8,763,236
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 5,412,494
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (235,160)
◆ 2023	\$ (28,185,245)	\$ (317,196)
◆ 2024	\$ (16,012,907)	\$ (212,414)
◆ 2025	\$ (11,950,224)	\$ (161,356)
◆ 2026	\$ 6,110,282	\$ 5,624
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Bolton
◆ Current Proportionate Share		0.814501%
◆ Prior Proportionate Share		0.773979%
Beginning Net Pension Liability	\$ 888,400,147	\$ 6,876,028
Ending Net Pension Liability	\$ 842,013,303	\$ 6,858,208
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	589,721
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	492,019
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,081,740
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 143,438
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	967,581
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	13,849
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,124,868
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 641,914
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	156,679
Total Employer Pension Expense	\$ 78,810,662	\$ 798,593
Covered Payroll:	\$ 316,455,433	\$ 2,748,507
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 6,858,208
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 8,651,114
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 5,343,243
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 39,778
◆ 2023	\$ (28,185,245)	\$ (118,573)
◆ 2024	\$ (16,012,907)	\$ (24,738)
◆ 2025	\$ (11,950,224)	\$ (34,770)
◆ 2026	\$ 6,110,282	\$ 95,175
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Boylston
◆ Current Proportionate Share		0.953868%
◆ Prior Proportionate Share		1.074951%
Beginning Net Pension Liability	\$ 888,400,147	\$ 9,549,865
Ending Net Pension Liability	\$ 842,013,303	\$ 8,031,694
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	690,627
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	139,858
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 830,485
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 167,982
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,133,140
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	991,533
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,292,655
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 751,750
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(64,327)
Total Employer Pension Expense	\$ 78,810,662	\$ 687,423
Covered Payroll:	\$ 316,455,433	\$ 3,153,264
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 8,031,694
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 10,131,379
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 6,257,509
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (217,216)
◆ 2023	\$ (28,185,245)	\$ (490,352)
◆ 2024	\$ (16,012,907)	\$ (361,340)
◆ 2025	\$ (11,950,224)	\$ (315,870)
◆ 2026	\$ 6,110,282	\$ (77,392)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Boylston Water District
◆ Current Proportionate Share		0.020001%
◆ Prior Proportionate Share		0.020192%
Beginning Net Pension Liability	\$ 888,400,147	\$ 179,386
Ending Net Pension Liability	\$ 842,013,303	\$ 168,410
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	14,481
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	8,951
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 23,432
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 3,522
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	23,760
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,421
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 28,703
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 15,763
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	4,867
Total Employer Pension Expense	\$ 78,810,662	\$ 20,630
Covered Payroll:	\$ 316,455,433	\$ 69,839
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 168,410
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 212,437
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 131,209
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 1,638
◆ 2023	\$ (28,185,245)	\$ (3,633)
◆ 2024	\$ (16,012,907)	\$ (1,736)
◆ 2025	\$ (11,950,224)	\$ (2,549)
◆ 2026	\$ 6,110,282	\$ 1,009
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Brookfield
◆ Current Proportionate Share		0.492969%
◆ Prior Proportionate Share		0.467701%
Beginning Net Pension Liability	\$ 888,400,147	\$ 4,155,057
Ending Net Pension Liability	\$ 842,013,303	\$ 4,150,866
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	356,923
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	232,211
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 589,134
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 86,815
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	585,619
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	78,357
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 750,791
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 388,512
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	61,016
Total Employer Pension Expense	\$ 78,810,662	\$ 449,528
Covered Payroll:	\$ 316,455,433	\$ 1,461,330
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 4,150,866
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 5,236,005
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 3,233,948
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (13,151)
◆ 2023	\$ (28,185,245)	\$ (127,045)
◆ 2024	\$ (16,012,907)	\$ (60,102)
◆ 2025	\$ (11,950,224)	\$ (19,794)
◆ 2026	\$ 6,110,282	\$ 58,435
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Charlton
◆ Current Proportionate Share		2.333548%
◆ Prior Proportionate Share		2.216983%
Beginning Net Pension Liability	\$ 888,400,147	\$ 19,695,681
Ending Net Pension Liability	\$ 842,013,303	\$ 19,648,787
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,689,554
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,449,324
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 3,138,878
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 410,952
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,772,122
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	63,810
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 3,246,884
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,839,085
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	412,094
Total Employer Pension Expense	\$ 78,810,662	\$ 2,251,179
Covered Payroll:	\$ 316,455,433	\$ 6,671,498
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 19,648,787
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 24,785,469
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 15,308,410
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 77,964
◆ 2023	\$ (28,185,245)	\$ (309,482)
◆ 2024	\$ (16,012,907)	\$ (46,257)
◆ 2025	\$ (11,950,224)	\$ (103,428)
◆ 2026	\$ 6,110,282	\$ 273,197
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Cherry Valley- Rochdale Water
◆ Current Proportionate Share		0.088354%
◆ Prior Proportionate Share		0.090651%
Beginning Net Pension Liability	\$ 888,400,147	\$ 805,343
Ending Net Pension Liability	\$ 842,013,303	\$ 743,955
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	63,971
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	40,739
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 104,710
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 15,560
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	104,960
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	19,443
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 139,963
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 69,633
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	9,321
Total Employer Pension Expense	\$ 78,810,662	\$ 78,954
Covered Payroll:	\$ 316,455,433	\$ 323,739
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 743,955
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 938,443
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 579,617
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (3,931)
◆ 2023	\$ (28,185,245)	\$ (14,623)
◆ 2024	\$ (16,012,907)	\$ (7,752)
◆ 2025	\$ (11,950,224)	\$ (11,774)
◆ 2026	\$ 6,110,282	\$ 2,827
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Cherry Valley Sewer District
◆ Current Proportionate Share		0.000000%
◆ Prior Proportionate Share		0.000000%
Beginning Net Pension Liability	\$ 888,400,147	\$ -
Ending Net Pension Liability	\$ 842,013,303	\$ -
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	3,420
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 3,420
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ -
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	-
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	12,497
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 12,497
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ -
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(625)
Total Employer Pension Expense	\$ 78,810,662	\$ (625)
Covered Payroll:	\$ 316,455,433	\$ -
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ -
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ -
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ -
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (1,129)
◆ 2023	\$ (28,185,245)	\$ (4,253)
◆ 2024	\$ (16,012,907)	\$ (3,696)
◆ 2025	\$ (11,950,224)	\$ -
◆ 2026	\$ 6,110,282	\$ 1
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Douglas
◆ Current Proportionate Share		1.727054%
◆ Prior Proportionate Share		1.772542%
Beginning Net Pension Liability	\$ 888,400,147	\$ 15,747,268
Ending Net Pension Liability	\$ 842,013,303	\$ 14,542,025
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,250,435
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	146,040
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,396,475
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 304,144
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,051,641
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	478,245
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,834,030
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,361,103
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	41,751
Total Employer Pension Expense	\$ 78,810,662	\$ 1,402,854
Covered Payroll:	\$ 316,455,433	\$ 6,354,975
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 14,542,025
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 18,343,671
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 11,329,721
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (215,954)
◆ 2023	\$ (28,185,245)	\$ (604,581)
◆ 2024	\$ (16,012,907)	\$ (377,302)
◆ 2025	\$ (11,950,224)	\$ (294,275)
◆ 2026	\$ 6,110,282	\$ 54,557
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Dudley
◆ Current Proportionate Share		1.475885%
◆ Prior Proportionate Share		1.419873%
Beginning Net Pension Liability	\$ 888,400,147	\$ 12,614,157
Ending Net Pension Liability	\$ 842,013,303	\$ 12,427,148
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,068,582
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	416,352
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,484,934
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 259,912
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,753,267
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	177,551
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,190,730
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,163,155
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(25,869)
Total Employer Pension Expense	\$ 78,810,662	\$ 1,137,286
Covered Payroll:	\$ 316,455,433	\$ 3,718,166
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 12,427,148
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 15,675,913
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 9,682,016
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (220,171)
◆ 2023	\$ (28,185,245)	\$ (365,497)
◆ 2024	\$ (16,012,907)	\$ (176,842)
◆ 2025	\$ (11,950,224)	\$ (96,233)
◆ 2026	\$ 6,110,282	\$ 152,947
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Dudley Housing Authority
◆ Current Proportionate Share		0.030465%
◆ Prior Proportionate Share		0.026398%
Beginning Net Pension Liability	\$ 888,400,147	\$ 234,524
Ending Net Pension Liability	\$ 842,013,303	\$ 256,521
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	22,058
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	39,722
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 61,780
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 5,365
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	36,191
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	22,042
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 63,598
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 24,010
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(16,006)
Total Employer Pension Expense	\$ 78,810,662	\$ 8,004
Covered Payroll:	\$ 316,455,433	\$ 122,964
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 256,521
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 323,582
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 199,856
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (16,084)
◆ 2023	\$ (28,185,245)	\$ 1,308
◆ 2024	\$ (16,012,907)	\$ 3,191
◆ 2025	\$ (11,950,224)	\$ 3,346
◆ 2026	\$ 6,110,282	\$ 6,421
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Dudley-Charlton Regional
◆ Current Proportionate Share		1.662739%
◆ Prior Proportionate Share		1.679772%
Beginning Net Pension Liability	\$ 888,400,147	\$ 14,923,093
Ending Net Pension Liability	\$ 842,013,303	\$ 14,000,481
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,203,869
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	73,426
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,277,295
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 292,818
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,975,238
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	144,285
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,412,341
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,310,415
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,156
Total Employer Pension Expense	\$ 78,810,662	\$ 1,315,571
Covered Payroll:	\$ 316,455,433	\$ 5,572,769
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 14,000,481
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 17,660,555
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 10,907,803
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (227,870)
◆ 2023	\$ (28,185,245)	\$ (482,929)
◆ 2024	\$ (16,012,907)	\$ (279,503)
◆ 2025	\$ (11,950,224)	\$ (227,255)
◆ 2026	\$ 6,110,282	\$ 82,511
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	East Brookfield
◆ Current Proportionate Share		0.250847%
◆ Prior Proportionate Share		0.251404%
Beginning Net Pension Liability	\$ 888,400,147	\$ 2,233,473
Ending Net Pension Liability	\$ 842,013,303	\$ 2,112,167
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	181,620
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	77,812
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 259,432
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 44,176
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	297,992
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	26,252
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 368,420
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 197,694
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	60,291
Total Employer Pension Expense	\$ 78,810,662	\$ 257,985
Covered Payroll:	\$ 316,455,433	\$ 793,566
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 2,112,167
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 2,664,340
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 1,645,593
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 17,267
◆ 2023	\$ (28,185,245)	\$ (70,266)
◆ 2024	\$ (16,012,907)	\$ (37,245)
◆ 2025	\$ (11,950,224)	\$ (33,450)
◆ 2026	\$ 6,110,282	\$ 14,706
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Grafton
◆ Current Proportionate Share		3.175273%
◆ Prior Proportionate Share		3.083774%
Beginning Net Pension Liability	\$ 888,400,147	\$ 27,396,255
Ending Net Pension Liability	\$ 842,013,303	\$ 26,736,222
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,298,986
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,007,795
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 3,306,781
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 559,184
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	3,772,043
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	20,434
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 4,351,661
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,502,454
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	283,654
Total Employer Pension Expense	\$ 78,810,662	\$ 2,786,108
Covered Payroll:	\$ 316,455,433	\$ 11,759,775
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 26,736,222
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 33,725,735
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 20,830,244
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (164,162)
◆ 2023	\$ (28,185,245)	\$ (657,231)
◆ 2024	\$ (16,012,907)	\$ (282,768)
◆ 2025	\$ (11,950,224)	\$ (237,268)
◆ 2026	\$ 6,110,282	\$ 296,549
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Grafton Housing Authority
◆ Current Proportionate Share		0.075463%
◆ Prior Proportionate Share		0.084645%
Beginning Net Pension Liability	\$ 888,400,147	\$ 751,988
Ending Net Pension Liability	\$ 842,013,303	\$ 635,405
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	54,637
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	5,561
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 60,198
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 13,289
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	89,645
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	100,867
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 203,801
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 59,473
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(28,279)
Total Employer Pension Expense	\$ 78,810,662	\$ 31,194
Covered Payroll:	\$ 316,455,433	\$ 204,409
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 635,405
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 801,515
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 495,045
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (37,492)
◆ 2023	\$ (28,185,245)	\$ (44,925)
◆ 2024	\$ (16,012,907)	\$ (33,061)
◆ 2025	\$ (11,950,224)	\$ (22,446)
◆ 2026	\$ 6,110,282	\$ (5,679)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Hardwick
◆ Current Proportionate Share		0.295229%
◆ Prior Proportionate Share		0.313537%
Beginning Net Pension Liability	\$ 888,400,147	\$ 2,785,459
Ending Net Pension Liability	\$ 842,013,303	\$ 2,485,869
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	213,754
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	6,685
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 220,439
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 51,992
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	350,715
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	318,143
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 720,850
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 232,672
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(133,614)
Total Employer Pension Expense	\$ 78,810,662	\$ 99,058
Covered Payroll:	\$ 316,455,433	\$ 1,023,724
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 2,485,869
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 3,135,737
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 1,936,746
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (167,905)
◆ 2023	\$ (28,185,245)	\$ (154,674)
◆ 2024	\$ (16,012,907)	\$ (112,208)
◆ 2025	\$ (11,950,224)	\$ (63,149)
◆ 2026	\$ 6,110,282	\$ (2,475)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Harvard
◆ Current Proportionate Share		1.525881%
◆ Prior Proportionate Share		1.488707%
Beginning Net Pension Liability	\$ 888,400,147	\$ 13,225,679
Ending Net Pension Liability	\$ 842,013,303	\$ 12,848,117
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,104,780
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	344,561
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,449,341
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 268,716
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,812,659
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	114,942
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,196,317
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,202,557
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	22,164
Total Employer Pension Expense	\$ 78,810,662	\$ 1,224,721
Covered Payroll:	\$ 316,455,433	\$ 4,841,712
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 12,848,117
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 16,206,934
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 10,009,994
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (187,721)
◆ 2023	\$ (28,185,245)	\$ (382,105)
◆ 2024	\$ (16,012,907)	\$ (198,412)
◆ 2025	\$ (11,950,224)	\$ (113,624)
◆ 2026	\$ 6,110,282	\$ 134,886
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Hillcrest Water District
◆ Current Proportionate Share		0.013537%
◆ Prior Proportionate Share		0.005937%
Beginning Net Pension Liability	\$ 888,400,147	\$ 52,747
Ending Net Pension Liability	\$ 842,013,303	\$ 113,982
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	9,801
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	57,552
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 67,353
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 2,384
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	16,081
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	45,456
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 63,921
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 10,668
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	8,100
Total Employer Pension Expense	\$ 78,810,662	\$ 18,768
Covered Payroll:	\$ 316,455,433	\$ 52,396
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 113,982
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 143,779
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 88,803
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (4,923)
◆ 2023	\$ (28,185,245)	\$ (2,362)
◆ 2024	\$ (16,012,907)	\$ (1,195)
◆ 2025	\$ (11,950,224)	\$ 2,572
◆ 2026	\$ 6,110,282	\$ 9,340
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Holden
◆ Current Proportionate Share		3.639028%
◆ Prior Proportionate Share		3.554444%
Beginning Net Pension Liability	\$ 888,400,147	\$ 31,577,686
Ending Net Pension Liability	\$ 842,013,303	\$ 30,641,099
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,634,757
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	803,470
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 3,438,227
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 640,854
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	4,322,957
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	944,279
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 5,908,090
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,867,942
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(252,294)
Total Employer Pension Expense	\$ 78,810,662	\$ 2,615,648
Covered Payroll:	\$ 316,455,433	\$ 10,404,562
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 30,641,099
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 38,651,445
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 23,872,542
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (751,457)
◆ 2023	\$ (28,185,245)	\$ (1,115,163)
◆ 2024	\$ (16,012,907)	\$ (645,173)
◆ 2025	\$ (11,950,224)	\$ (275,200)
◆ 2026	\$ 6,110,282	\$ 317,130
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Holden Housing Authority
◆ Current Proportionate Share		0.031461%
◆ Prior Proportionate Share		0.054096%
Beginning Net Pension Liability	\$ 888,400,147	\$ 480,591
Ending Net Pension Liability	\$ 842,013,303	\$ 264,902
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	22,778
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	11,224
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 34,002
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 5,540
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	37,373
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	175,619
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 218,532
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 24,794
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(36,610)
Total Employer Pension Expense	\$ 78,810,662	\$ (11,816)
Covered Payroll:	\$ 316,455,433	\$ -
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 264,902
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 334,154
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 206,386
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (40,207)
◆ 2023	\$ (28,185,245)	\$ (42,375)
◆ 2024	\$ (16,012,907)	\$ (38,367)
◆ 2025	\$ (11,950,224)	\$ (40,141)
◆ 2026	\$ 6,110,282	\$ (23,440)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Hopedale
◆ Current Proportionate Share		1.625106%
◆ Prior Proportionate Share		1.587019%
Beginning Net Pension Liability	\$ 888,400,147	\$ 14,099,076
Ending Net Pension Liability	\$ 842,013,303	\$ 13,683,610
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,176,622
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	394,105
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,570,727
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 286,191
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,930,533
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	280,521
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,497,245
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,280,757
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	99,964
Total Employer Pension Expense	\$ 78,810,662	\$ 1,380,721
Covered Payroll:	\$ 316,455,433	\$ 5,386,032
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 13,683,610
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 17,260,846
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 10,660,928
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (142,516)
◆ 2023	\$ (28,185,245)	\$ (482,670)
◆ 2024	\$ (16,012,907)	\$ (271,273)
◆ 2025	\$ (11,950,224)	\$ (172,032)
◆ 2026	\$ 6,110,282	\$ 141,973
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Hopedale Housing Authority
◆ Current Proportionate Share		0.004551%
◆ Prior Proportionate Share		0.008508%
Beginning Net Pension Liability	\$ 888,400,147	\$ 75,582
Ending Net Pension Liability	\$ 842,013,303	\$ 38,316
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	3,295
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	3,519
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 6,814
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 801
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	5,406
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	38,603
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 44,810
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 3,586
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(12,404)
Total Employer Pension Expense	\$ 78,810,662	\$ (8,818)
Covered Payroll:	\$ 316,455,433	\$ -
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 38,316
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 48,333
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 29,852
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (12,458)
◆ 2023	\$ (28,185,245)	\$ (7,715)
◆ 2024	\$ (16,012,907)	\$ (7,374)
◆ 2025	\$ (11,950,224)	\$ (6,293)
◆ 2026	\$ 6,110,282	\$ (4,156)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Hubbardston
◆ Current Proportionate Share		0.437522%
◆ Prior Proportionate Share		0.406676%
Beginning Net Pension Liability	\$ 888,400,147	\$ 3,612,910
Ending Net Pension Liability	\$ 842,013,303	\$ 3,683,997
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	316,778
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	261,732
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 578,510
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 77,050
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	519,752
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	248,784
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 845,586
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 344,814
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(9,250)
Total Employer Pension Expense	\$ 78,810,662	\$ 335,564
Covered Payroll:	\$ 316,455,433	\$ 1,442,399
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 3,683,997
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 4,647,085
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 2,870,209
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (70,683)
◆ 2023	\$ (28,185,245)	\$ (162,745)
◆ 2024	\$ (16,012,907)	\$ (85,291)
◆ 2025	\$ (11,950,224)	\$ (9,654)
◆ 2026	\$ 6,110,282	\$ 61,297
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Lancaster
◆ Current Proportionate Share		1.027979%
◆ Prior Proportionate Share		1.082250%
Beginning Net Pension Liability	\$ 888,400,147	\$ 9,614,710
Ending Net Pension Liability	\$ 842,013,303	\$ 8,655,724
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	744,286
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	308,672
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,052,958
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 181,033
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,221,181
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	403,409
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,805,623
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 810,157
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	27,439
Total Employer Pension Expense	\$ 78,810,662	\$ 837,596
Covered Payroll:	\$ 316,455,433	\$ 2,653,243
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 8,655,724
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 10,918,545
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 6,743,692
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (120,472)
◆ 2023	\$ (28,185,245)	\$ (267,970)
◆ 2024	\$ (16,012,907)	\$ (160,141)
◆ 2025	\$ (11,950,224)	\$ (206,082)
◆ 2026	\$ 6,110,282	\$ 2,000
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Lancaster Housing Authority
◆ Current Proportionate Share		0.021223%
◆ Prior Proportionate Share		0.025868%
Beginning Net Pension Liability	\$ 888,400,147	\$ 229,809
Ending Net Pension Liability	\$ 842,013,303	\$ 178,704
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	15,366
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	9,586
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 24,952
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 3,738
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	25,212
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	37,242
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 66,192
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 16,726
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	2,868
Total Employer Pension Expense	\$ 78,810,662	\$ 19,594
Covered Payroll:	\$ 316,455,433	\$ 57,026
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 178,704
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 225,422
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 139,229
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (1,833)
◆ 2023	\$ (28,185,245)	\$ (14,178)
◆ 2024	\$ (16,012,907)	\$ (11,489)
◆ 2025	\$ (11,950,224)	\$ (9,835)
◆ 2026	\$ 6,110,282	\$ (3,905)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Lancaster Sewer
◆ Current Proportionate Share		0.003757%
◆ Prior Proportionate Share		0.003229%
Beginning Net Pension Liability	\$ 888,400,147	\$ 28,685
Ending Net Pension Liability	\$ 842,013,303	\$ 31,632
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,720
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	13,384
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 16,104
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 662
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	4,463
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,620
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 6,745
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,961
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,028
Total Employer Pension Expense	\$ 78,810,662	\$ 7,989
Covered Payroll:	\$ 316,455,433	\$ 29,700
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 31,632
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 39,902
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 24,645
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 4,503
◆ 2023	\$ (28,185,245)	\$ 3,378
◆ 2024	\$ (16,012,907)	\$ 580
◆ 2025	\$ (11,950,224)	\$ 74
◆ 2026	\$ 6,110,282	\$ 824
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Leicester
◆ Current Proportionate Share		2.104685%
◆ Prior Proportionate Share		2.164805%
Beginning Net Pension Liability	\$ 888,400,147	\$ 19,232,127
Ending Net Pension Liability	\$ 842,013,303	\$ 17,721,724
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,523,850
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	321,628
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,845,478
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 370,647
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,500,245
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	470,422
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 3,341,314
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,658,716
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(5,855)
Total Employer Pension Expense	\$ 78,810,662	\$ 1,652,861
Covered Payroll:	\$ 316,455,433	\$ 5,859,732
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 17,721,724
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 22,354,623
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 13,807,031
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (301,034)
◆ 2023	\$ (28,185,245)	\$ (577,067)
◆ 2024	\$ (16,012,907)	\$ (338,427)
◆ 2025	\$ (11,950,224)	\$ (340,540)
◆ 2026	\$ 6,110,282	\$ 61,232
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Leicester Housing Authority
◆ Current Proportionate Share		0.081232%
◆ Prior Proportionate Share		0.077978%
Beginning Net Pension Liability	\$ 888,400,147	\$ 692,756
Ending Net Pension Liability	\$ 842,013,303	\$ 683,981
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	58,814
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	63,259
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 122,073
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 14,305
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	96,498
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	5,614
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 116,417
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 64,019
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	13,089
Total Employer Pension Expense	\$ 78,810,662	\$ 77,108
Covered Payroll:	\$ 316,455,433	\$ 224,332
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 683,981
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 862,790
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 532,891
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 2,312
◆ 2023	\$ (28,185,245)	\$ (3,800)
◆ 2024	\$ (16,012,907)	\$ 3,092
◆ 2025	\$ (11,950,224)	\$ (4,556)
◆ 2026	\$ 6,110,282	\$ 8,608
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Leicester Water District
◆ Current Proportionate Share		0.075779%
◆ Prior Proportionate Share		0.078959%
Beginning Net Pension Liability	\$ 888,400,147	\$ 701,472
Ending Net Pension Liability	\$ 842,013,303	\$ 638,069
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	54,866
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	58,143
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 113,009
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 13,345
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	90,021
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	85,507
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 188,873
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 59,722
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(33,975)
Total Employer Pension Expense	\$ 78,810,662	\$ 25,747
Covered Payroll:	\$ 316,455,433	\$ 356,489
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 638,069
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 804,876
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 497,121
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (31,500)
◆ 2023	\$ (28,185,245)	\$ (25,937)
◆ 2024	\$ (16,012,907)	\$ (15,844)
◆ 2025	\$ (11,950,224)	\$ (3,651)
◆ 2026	\$ 6,110,282	\$ 1,068
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Lunenburg
◆ Current Proportionate Share		2.070507%
◆ Prior Proportionate Share		2.233040%
Beginning Net Pension Liability	\$ 888,400,147	\$ 19,838,326
Ending Net Pension Liability	\$ 842,013,303	\$ 17,433,946
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,499,105
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	207,054
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,706,159
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 364,628
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,459,644
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,208,153
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 4,032,425
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,631,780
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(152,170)
Total Employer Pension Expense	\$ 78,810,662	\$ 1,479,610
Covered Payroll:	\$ 316,455,433	\$ 7,238,609
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 17,433,946
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 21,991,613
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 13,582,822
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (458,673)
◆ 2023	\$ (28,185,245)	\$ (777,674)
◆ 2024	\$ (16,012,907)	\$ (539,763)
◆ 2025	\$ (11,950,224)	\$ (494,549)
◆ 2026	\$ 6,110,282	\$ (55,607)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Lunenburg Housing Authority
◆ Current Proportionate Share		0.003208%
◆ Prior Proportionate Share		0.002700%
Beginning Net Pension Liability	\$ 888,400,147	\$ 23,983
Ending Net Pension Liability	\$ 842,013,303	\$ 27,009
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,322
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	5,261
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 7,583
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 565
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	3,811
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	6,043
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 10,419
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,528
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(5,473)
Total Employer Pension Expense	\$ 78,810,662	\$ (2,945)
Covered Payroll:	\$ 316,455,433	\$ 42,337
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 27,009
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 34,070
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 21,043
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (4,659)
◆ 2023	\$ (28,185,245)	\$ 150
◆ 2024	\$ (16,012,907)	\$ 589
◆ 2025	\$ (11,950,224)	\$ 321
◆ 2026	\$ 6,110,282	\$ 763
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Lunenburg Water District
◆ Current Proportionate Share		0.090272%
◆ Prior Proportionate Share		0.098797%
Beginning Net Pension Liability	\$ 888,400,147	\$ 877,716
Ending Net Pension Liability	\$ 842,013,303	\$ 760,101
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	65,359
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	48,668
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 114,027
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 15,897
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	107,238
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	73,530
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 196,665
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 71,144
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(5,874)
Total Employer Pension Expense	\$ 78,810,662	\$ 65,270
Covered Payroll:	\$ 316,455,433	\$ 297,133
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 760,101
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 958,811
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 592,196
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (19,480)
◆ 2023	\$ (28,185,245)	\$ (22,738)
◆ 2024	\$ (16,012,907)	\$ (16,010)
◆ 2025	\$ (11,950,224)	\$ (20,372)
◆ 2026	\$ 6,110,282	\$ (4,038)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Mendon
◆ Current Proportionate Share		1.120460%
◆ Prior Proportionate Share		1.066926%
Beginning Net Pension Liability	\$ 888,400,147	\$ 9,478,575
Ending Net Pension Liability	\$ 842,013,303	\$ 9,434,419
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	811,244
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	661,923
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,473,167
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 197,320
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,331,042
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	37,316
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,565,678
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 883,042
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	231,691
Total Employer Pension Expense	\$ 78,810,662	\$ 1,114,733
Covered Payroll:	\$ 316,455,433	\$ 2,943,927
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 9,434,419
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 11,900,811
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 7,350,375
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 49,992
◆ 2023	\$ (28,185,245)	\$ (173,580)
◆ 2024	\$ (16,012,907)	\$ (43,056)
◆ 2025	\$ (11,950,224)	\$ (54,315)
◆ 2026	\$ 6,110,282	\$ 128,448
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Mendon-Upton Regional
◆ Current Proportionate Share		1.250808%
◆ Prior Proportionate Share		1.271251%
Beginning Net Pension Liability	\$ 888,400,147	\$ 11,293,793
Ending Net Pension Liability	\$ 842,013,303	\$ 10,531,968
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	905,620
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	44,378
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 949,998
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 220,275
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,485,888
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	211,288
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,917,451
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 985,770
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(22,872)
Total Employer Pension Expense	\$ 78,810,662	\$ 962,898
Covered Payroll:	\$ 316,455,433	\$ 4,375,793
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 10,531,968
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 13,285,286
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 8,205,477
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (193,522)
◆ 2023	\$ (28,185,245)	\$ (399,930)
◆ 2024	\$ (16,012,907)	\$ (238,577)
◆ 2025	\$ (11,950,224)	\$ (188,946)
◆ 2026	\$ 6,110,282	\$ 53,522
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Millbury
◆ Current Proportionate Share		2.975708%
◆ Prior Proportionate Share		3.013476%
Beginning Net Pension Liability	\$ 888,400,147	\$ 26,771,725
Ending Net Pension Liability	\$ 842,013,303	\$ 25,055,853
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,154,495
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	96,126
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 2,250,621
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 524,040
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	3,534,970
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	844,968
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 4,903,978
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,345,175
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(199,793)
Total Employer Pension Expense	\$ 78,810,662	\$ 2,145,382
Covered Payroll:	\$ 316,455,433	\$ 7,645,397
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 25,055,853
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 31,606,076
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 19,521,066
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (628,263)
◆ 2023	\$ (28,185,245)	\$ (1,079,310)
◆ 2024	\$ (16,012,907)	\$ (683,046)
◆ 2025	\$ (11,950,224)	\$ (402,241)
◆ 2026	\$ 6,110,282	\$ 139,503
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Millbury Housing Authority
◆ Current Proportionate Share		0.156054%
◆ Prior Proportionate Share		0.159506%
Beginning Net Pension Liability	\$ 888,400,147	\$ 1,417,050
Ending Net Pension Liability	\$ 842,013,303	\$ 1,313,999
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	112,988
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	3,887
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 116,875
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 27,482
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	185,384
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	42,336
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 255,202
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 122,988
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(10,681)
Total Employer Pension Expense	\$ 78,810,662	\$ 112,307
Covered Payroll:	\$ 316,455,433	\$ 398,065
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 1,313,999
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 1,657,512
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 1,023,740
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (32,728)
◆ 2023	\$ (28,185,245)	\$ (54,163)
◆ 2024	\$ (16,012,907)	\$ (33,751)
◆ 2025	\$ (11,950,224)	\$ (23,352)
◆ 2026	\$ 6,110,282	\$ 5,667
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Millville
◆ Current Proportionate Share		0.286486%
◆ Prior Proportionate Share		0.282048%
Beginning Net Pension Liability	\$ 888,400,147	\$ 2,505,715
Ending Net Pension Liability	\$ 842,013,303	\$ 2,412,254
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	207,424
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	164,381
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 371,805
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 50,452
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	340,329
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	130,418
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 521,199
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 225,782
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	39,221
Total Employer Pension Expense	\$ 78,810,662	\$ 265,003
Covered Payroll:	\$ 316,455,433	\$ 672,889
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 2,412,254
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 3,042,877
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 1,879,392
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (2,818)
◆ 2023	\$ (28,185,245)	\$ (86,004)
◆ 2024	\$ (16,012,907)	\$ (38,271)
◆ 2025	\$ (11,950,224)	\$ (44,777)
◆ 2026	\$ 6,110,282	\$ 22,476
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Narragansett Regional
◆ Current Proportionate Share		0.764147%
◆ Prior Proportionate Share		0.655163%
Beginning Net Pension Liability	\$ 888,400,147	\$ 5,820,472
Ending Net Pension Liability	\$ 842,013,303	\$ 6,434,221
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	553,264
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	810,111
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,363,375
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 134,571
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	907,763
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	73,865
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,116,199
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 602,229
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	120,145
Total Employer Pension Expense	\$ 78,810,662	\$ 722,374
Covered Payroll:	\$ 316,455,433	\$ 2,694,120
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 6,434,221
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 8,116,287
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 5,012,915
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 19,828
◆ 2023	\$ (28,185,245)	\$ (58,233)
◆ 2024	\$ (16,012,907)	\$ 37,201
◆ 2025	\$ (11,950,224)	\$ 79,570
◆ 2026	\$ 6,110,282	\$ 168,810
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Nashoba Regional
◆ Current Proportionate Share		1.637621%
◆ Prior Proportionate Share		1.703632%
Beginning Net Pension Liability	\$ 888,400,147	\$ 15,135,073
Ending Net Pension Liability	\$ 842,013,303	\$ 13,788,983
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,185,683
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	193,984
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,379,667
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 288,395
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,945,399
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	746,344
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,980,138
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,290,620
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	15,768
Total Employer Pension Expense	\$ 78,810,662	\$ 1,306,388
Covered Payroll:	\$ 316,455,433	\$ 6,571,236
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 13,788,983
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 17,393,766
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 10,743,025
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (232,607)
◆ 2023	\$ (28,185,245)	\$ (656,922)
◆ 2024	\$ (16,012,907)	\$ (432,712)
◆ 2025	\$ (11,950,224)	\$ (304,327)
◆ 2026	\$ 6,110,282	\$ 26,097
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Nashoba Valley Dispatch
◆ Current Proportionate Share		0.075963%
◆ Prior Proportionate Share		0.063469%
Beginning Net Pension Liability	\$ 888,400,147	\$ 563,859
Ending Net Pension Liability	\$ 842,013,303	\$ 639,618
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	54,999
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	299,003
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 354,002
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 13,378
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	90,240
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	3,175
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 106,793
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 59,867
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	105,446
Total Employer Pension Expense	\$ 78,810,662	\$ 165,313
Covered Payroll:	\$ 316,455,433	\$ 976,558
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 639,618
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 806,830
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 498,328
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 94,839
◆ 2023	\$ (28,185,245)	\$ 77,673
◆ 2024	\$ (16,012,907)	\$ 46,026
◆ 2025	\$ (11,950,224)	\$ 10,032
◆ 2026	\$ 6,110,282	\$ 18,639
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	New Braintree
◆ Current Proportionate Share		0.089056%
◆ Prior Proportionate Share		0.095537%
Beginning Net Pension Liability	\$ 888,400,147	\$ 848,753
Ending Net Pension Liability	\$ 842,013,303	\$ 749,865
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	64,479
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	23,711
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 88,190
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 15,683
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	105,794
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	88,499
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 209,976
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 70,186
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(50,184)
Total Employer Pension Expense	\$ 78,810,662	\$ 20,002
Covered Payroll:	\$ 316,455,433	\$ 212,728
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 749,865
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 945,898
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 584,221
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (54,492)
◆ 2023	\$ (28,185,245)	\$ (27,074)
◆ 2024	\$ (16,012,907)	\$ (18,412)
◆ 2025	\$ (11,950,224)	\$ (19,985)
◆ 2026	\$ 6,110,282	\$ (1,823)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Northboro
◆ Current Proportionate Share		3.446106%
◆ Prior Proportionate Share		3.502615%
Beginning Net Pension Liability	\$ 888,400,147	\$ 31,117,235
Ending Net Pension Liability	\$ 842,013,303	\$ 29,016,674
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,495,077
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	600,503
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 3,095,580
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 606,880
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	4,093,777
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	420,045
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 5,120,702
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,715,899
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	175,380
Total Employer Pension Expense	\$ 78,810,662	\$ 2,891,279
Covered Payroll:	\$ 316,455,433	\$ 11,039,627
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 29,016,674
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 36,602,354
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 22,606,949
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (331,637)
◆ 2023	\$ (28,185,245)	\$ (864,686)
◆ 2024	\$ (16,012,907)	\$ (499,452)
◆ 2025	\$ (11,950,224)	\$ (476,596)
◆ 2026	\$ 6,110,282	\$ 147,249
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Northboro Housing Authority
◆ Current Proportionate Share		0.109817%
◆ Prior Proportionate Share		0.111843%
Beginning Net Pension Liability	\$ 888,400,147	\$ 993,617
Ending Net Pension Liability	\$ 842,013,303	\$ 924,674
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	79,511
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	9,066
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 88,577
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 19,339
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	130,456
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	17,342
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 167,137
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 86,548
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	4,120
Total Employer Pension Expense	\$ 78,810,662	\$ 90,668
Covered Payroll:	\$ 316,455,433	\$ 403,318
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 924,674
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 1,166,407
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 720,416
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (12,027)
◆ 2023	\$ (28,185,245)	\$ (34,352)
◆ 2024	\$ (16,012,907)	\$ (20,747)
◆ 2025	\$ (11,950,224)	\$ (15,874)
◆ 2026	\$ 6,110,282	\$ 4,440
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Northboro- Southboro Regional
◆ Current Proportionate Share		0.701794%
◆ Prior Proportionate Share		0.646198%
Beginning Net Pension Liability	\$ 888,400,147	\$ 5,740,822
Ending Net Pension Liability	\$ 842,013,303	\$ 5,909,200
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	508,118
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	544,739
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,052,857
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 123,590
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	833,691
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	34,510
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 991,791
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 553,089
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	178,304
Total Employer Pension Expense	\$ 78,810,662	\$ 731,393
Covered Payroll:	\$ 316,455,433	\$ 3,085,947
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 5,909,200
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 7,454,012
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 4,603,869
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 70,418
◆ 2023	\$ (28,185,245)	\$ (101,614)
◆ 2024	\$ (16,012,907)	\$ (12,926)
◆ 2025	\$ (11,950,224)	\$ 10
◆ 2026	\$ 6,110,282	\$ 105,178
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	North Brookfield
◆ Current Proportionate Share		0.894649%
◆ Prior Proportionate Share		0.844393%
Beginning Net Pension Liability	\$ 888,400,147	\$ 7,501,589
Ending Net Pension Liability	\$ 842,013,303	\$ 7,533,067
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	647,751
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	719,064
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,366,815
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 157,553
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,062,792
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	54,446
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,274,791
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 705,079
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	156,405
Total Employer Pension Expense	\$ 78,810,662	\$ 861,484
Covered Payroll:	\$ 316,455,433	\$ 2,790,288
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 7,533,067
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 9,502,399
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 5,869,028
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 35,829
◆ 2023	\$ (28,185,245)	\$ (55,745)
◆ 2024	\$ (16,012,907)	\$ 32,091
◆ 2025	\$ (11,950,224)	\$ (31,127)
◆ 2026	\$ 6,110,282	\$ 110,976
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	North Brookfield Housing Authority
◆ Current Proportionate Share		0.029611%
◆ Prior Proportionate Share		0.027301%
Beginning Net Pension Liability	\$ 888,400,147	\$ 242,541
Ending Net Pension Liability	\$ 842,013,303	\$ 249,325
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	21,439
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	23,760
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 45,199
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 5,215
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	35,176
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	24,474
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 64,865
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 23,336
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(1,658)
Total Employer Pension Expense	\$ 78,810,662	\$ 21,678
Covered Payroll:	\$ 316,455,433	\$ 58,048
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 249,325
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 314,504
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 194,249
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (6,398)
◆ 2023	\$ (28,185,245)	\$ (11,194)
◆ 2024	\$ (16,012,907)	\$ (7,308)
◆ 2025	\$ (11,950,224)	\$ 836
◆ 2026	\$ 6,110,282	\$ 4,398
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Oakham
◆ Current Proportionate Share		0.104250%
◆ Prior Proportionate Share		0.116820%
Beginning Net Pension Liability	\$ 888,400,147	\$ 1,037,833
Ending Net Pension Liability	\$ 842,013,303	\$ 877,795
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	75,480
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	6,976
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 82,456
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 18,359
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	123,842
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	115,116
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 257,317
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 82,160
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(42,733)
Total Employer Pension Expense	\$ 78,810,662	\$ 39,427
Covered Payroll:	\$ 316,455,433	\$ 275,760
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 877,795
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 1,107,272
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 683,892
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (53,416)
◆ 2023	\$ (28,185,245)	\$ (47,258)
◆ 2024	\$ (16,012,907)	\$ (34,516)
◆ 2025	\$ (11,950,224)	\$ (31,952)
◆ 2026	\$ 6,110,282	\$ (7,719)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Oxford
◆ Current Proportionate Share		3.348789%
◆ Prior Proportionate Share		3.252998%
Beginning Net Pension Liability	\$ 888,400,147	\$ 28,899,637
Ending Net Pension Liability	\$ 842,013,303	\$ 28,197,247
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,424,616
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	851,630
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 3,276,246
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 589,741
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	3,978,169
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,017,317
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 5,585,227
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,639,203
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(390,170)
Total Employer Pension Expense	\$ 78,810,662	\$ 2,249,033
Covered Payroll:	\$ 316,455,433	\$ 9,604,348
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 28,197,247
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 35,568,709
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 21,968,532
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (802,561)
◆ 2023	\$ (28,185,245)	\$ (974,798)
◆ 2024	\$ (16,012,907)	\$ (592,114)
◆ 2025	\$ (11,950,224)	\$ (251,464)
◆ 2026	\$ 6,110,282	\$ 311,956
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Oxford Housing Authority
◆ Current Proportionate Share		0.116287%
◆ Prior Proportionate Share		0.124570%
Beginning Net Pension Liability	\$ 888,400,147	\$ 1,106,680
Ending Net Pension Liability	\$ 842,013,303	\$ 979,149
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	84,195
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	85,020
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 169,215
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 20,479
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	138,142
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	64,678
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 223,299
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 91,646
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	13,747
Total Employer Pension Expense	\$ 78,810,662	\$ 105,393
Covered Payroll:	\$ 316,455,433	\$ 275,930
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 979,149
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 1,235,122
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 762,857
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (2,297)
◆ 2023	\$ (28,185,245)	\$ (15,848)
◆ 2024	\$ (16,012,907)	\$ (6,971)
◆ 2025	\$ (11,950,224)	\$ (26,793)
◆ 2026	\$ 6,110,282	\$ (2,175)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Oxford-Rochdale Sewer District
◆ Current Proportionate Share		0.057009%
◆ Prior Proportionate Share		0.056234%
Beginning Net Pension Liability	\$ 888,400,147	\$ 499,582
Ending Net Pension Liability	\$ 842,013,303	\$ 480,021
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	41,276
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	37,188
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 78,464
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 10,040
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	67,723
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	-
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 77,763
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 44,929
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	26,379
Total Employer Pension Expense	\$ 78,810,662	\$ 71,308
Covered Payroll:	\$ 316,455,433	\$ 86,726
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 480,021
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 605,510
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 373,985
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 14,925
◆ 2023	\$ (28,185,245)	\$ (9,584)
◆ 2024	\$ (16,012,907)	\$ (3,863)
◆ 2025	\$ (11,950,224)	\$ (5,125)
◆ 2026	\$ 6,110,282	\$ 4,348
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Paxton
◆ Current Proportionate Share		1.236297%
◆ Prior Proportionate Share		1.245167%
Beginning Net Pension Liability	\$ 888,400,147	\$ 11,062,069
Ending Net Pension Liability	\$ 842,013,303	\$ 10,409,788
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	895,114
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	528,792
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,423,906
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 217,719
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,468,650
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	158,636
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,845,005
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 974,334
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	304,213
Total Employer Pension Expense	\$ 78,810,662	\$ 1,278,547
Covered Payroll:	\$ 316,455,433	\$ 3,586,488
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 10,409,788
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 13,131,165
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 8,110,286
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 97,842
◆ 2023	\$ (28,185,245)	\$ (274,628)
◆ 2024	\$ (16,012,907)	\$ (134,077)
◆ 2025	\$ (11,950,224)	\$ (175,840)
◆ 2026	\$ 6,110,282	\$ 65,604
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Petersham
◆ Current Proportionate Share		0.250846%
◆ Prior Proportionate Share		0.259868%
Beginning Net Pension Liability	\$ 888,400,147	\$ 2,308,672
Ending Net Pension Liability	\$ 842,013,303	\$ 2,112,155
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	181,619
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	-
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 181,619
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 44,175
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	297,990
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	125,306
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 467,471
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 197,693
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(40,813)
Total Employer Pension Expense	\$ 78,810,662	\$ 156,880
Covered Payroll:	\$ 316,455,433	\$ 569,360
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 2,112,155
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 2,664,325
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 1,645,584
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (74,025)
◆ 2023	\$ (28,185,245)	\$ (103,732)
◆ 2024	\$ (16,012,907)	\$ (68,687)
◆ 2025	\$ (11,950,224)	\$ (44,626)
◆ 2026	\$ 6,110,282	\$ 5,218
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Phillipston
◆ Current Proportionate Share		0.203149%
◆ Prior Proportionate Share		0.221971%
Beginning Net Pension Liability	\$ 888,400,147	\$ 1,971,994
Ending Net Pension Liability	\$ 842,013,303	\$ 1,710,544
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	147,086
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	12,349
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 159,435
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 35,776
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	241,330
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	159,011
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 436,117
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 160,103
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(35,679)
Total Employer Pension Expense	\$ 78,810,662	\$ 124,424
Covered Payroll:	\$ 316,455,433	\$ 523,574
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 1,710,544
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 2,157,722
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 1,332,688
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (62,146)
◆ 2023	\$ (28,185,245)	\$ (87,797)
◆ 2024	\$ (16,012,907)	\$ (61,796)
◆ 2025	\$ (11,950,224)	\$ (56,264)
◆ 2026	\$ 6,110,282	\$ (8,679)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Princeton
◆ Current Proportionate Share		0.638271%
◆ Prior Proportionate Share		0.607734%
Beginning Net Pension Liability	\$ 888,400,147	\$ 5,399,113
Ending Net Pension Liability	\$ 842,013,303	\$ 5,374,329
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	462,126
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	302,514
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 764,640
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 112,403
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	758,230
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	210,042
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,080,675
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 503,026
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(30,309)
Total Employer Pension Expense	\$ 78,810,662	\$ 472,717
Covered Payroll:	\$ 316,455,433	\$ 2,070,683
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 5,374,329
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 6,779,312
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 4,187,151
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (127,439)
◆ 2023	\$ (28,185,245)	\$ (160,376)
◆ 2024	\$ (16,012,907)	\$ (83,793)
◆ 2025	\$ (11,950,224)	\$ (17,645)
◆ 2026	\$ 6,110,282	\$ 73,218
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Quabbin Regional
◆ Current Proportionate Share		1.663404%
◆ Prior Proportionate Share		1.705700%
Beginning Net Pension Liability	\$ 888,400,147	\$ 15,153,444
Ending Net Pension Liability	\$ 842,013,303	\$ 14,006,083
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,204,351
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	96,328
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,300,679
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 292,935
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,976,029
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	514,463
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,783,427
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,310,940
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(171,501)
Total Employer Pension Expense	\$ 78,810,662	\$ 1,139,439
Covered Payroll:	\$ 316,455,433	\$ 5,082,618
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 14,006,083
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 17,667,622
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 10,912,168
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (384,932)
◆ 2023	\$ (28,185,245)	\$ (533,968)
◆ 2024	\$ (16,012,907)	\$ (357,556)
◆ 2025	\$ (11,950,224)	\$ (260,538)
◆ 2026	\$ 6,110,282	\$ 54,246
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Quaboag Regional
◆ Current Proportionate Share		0.589417%
◆ Prior Proportionate Share		0.596261%
Beginning Net Pension Liability	\$ 888,400,147	\$ 5,297,184
Ending Net Pension Liability	\$ 842,013,303	\$ 4,962,970
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	426,754
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	21,772
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 448,526
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 103,800
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	700,194
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	79,235
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 883,229
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 464,524
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(22,099)
Total Employer Pension Expense	\$ 78,810,662	\$ 442,425
Covered Payroll:	\$ 316,455,433	\$ 2,662,378
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 4,962,970
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 6,260,414
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 3,866,660
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (100,128)
◆ 2023	\$ (28,185,245)	\$ (175,826)
◆ 2024	\$ (16,012,907)	\$ (102,903)
◆ 2025	\$ (11,950,224)	\$ (84,191)
◆ 2026	\$ 6,110,282	\$ 28,345
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Royalston
◆ Current Proportionate Share		0.089093%
◆ Prior Proportionate Share		0.093956%
Beginning Net Pension Liability	\$ 888,400,147	\$ 834,701
Ending Net Pension Liability	\$ 842,013,303	\$ 750,172
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	64,506
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	16,650
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 81,156
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 15,690
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	105,837
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	56,565
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 178,092
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 70,215
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(16,625)
Total Employer Pension Expense	\$ 78,810,662	\$ 53,590
Covered Payroll:	\$ 316,455,433	\$ 236,706
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 750,172
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 946,286
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 584,460
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (28,127)
◆ 2023	\$ (28,185,245)	\$ (31,962)
◆ 2024	\$ (16,012,907)	\$ (21,344)
◆ 2025	\$ (11,950,224)	\$ (15,500)
◆ 2026	\$ 6,110,282	\$ (3)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Rutland
◆ Current Proportionate Share		1.049371%
◆ Prior Proportionate Share		1.016891%
Beginning Net Pension Liability	\$ 888,400,147	\$ 9,034,065
Ending Net Pension Liability	\$ 842,013,303	\$ 8,835,840
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	759,773
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	418,782
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,178,555
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 184,800
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,246,592
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	19,646
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,451,038
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 827,016
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	205,387
Total Employer Pension Expense	\$ 78,810,662	\$ 1,032,403
Covered Payroll:	\$ 316,455,433	\$ 4,416,481
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 8,835,840
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 11,145,748
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 6,884,020
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 39,379
◆ 2023	\$ (28,185,245)	\$ (234,391)
◆ 2024	\$ (16,012,907)	\$ (102,882)
◆ 2025	\$ (11,950,224)	\$ (75,103)
◆ 2026	\$ 6,110,282	\$ 100,514
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Southboro
◆ Current Proportionate Share		3.139476%
◆ Prior Proportionate Share		3.226782%
Beginning Net Pension Liability	\$ 888,400,147	\$ 28,666,737
Ending Net Pension Liability	\$ 842,013,303	\$ 26,434,803
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,273,068
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	203,496
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 2,476,564
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 552,880
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	3,729,517
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	648,977
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 4,931,374
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,474,242
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(30,337)
Total Employer Pension Expense	\$ 78,810,662	\$ 2,443,905
Covered Payroll:	\$ 316,455,433	\$ 10,275,823
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 26,434,803
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 33,345,517
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 20,595,408
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (484,768)
◆ 2023	\$ (28,185,245)	\$ (965,365)
◆ 2024	\$ (16,012,907)	\$ (596,154)
◆ 2025	\$ (11,950,224)	\$ (502,527)
◆ 2026	\$ 6,110,282	\$ 94,004
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Southboro Housing Authority
◆ Current Proportionate Share		0.041683%
◆ Prior Proportionate Share		0.024528%
Beginning Net Pension Liability	\$ 888,400,147	\$ 217,910
Ending Net Pension Liability	\$ 842,013,303	\$ 350,974
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	30,179
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	127,515
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 157,694
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 7,341
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	49,517
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	13,687
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 70,545
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 32,850
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	21,076
Total Employer Pension Expense	\$ 78,810,662	\$ 53,926
Covered Payroll:	\$ 316,455,433	\$ 98,963
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 350,974
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 442,728
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 273,445
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 16,356
◆ 2023	\$ (28,185,245)	\$ 10,841
◆ 2024	\$ (16,012,907)	\$ 17,688
◆ 2025	\$ (11,950,224)	\$ 20,495
◆ 2026	\$ 6,110,282	\$ 21,769
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Spencer
◆ Current Proportionate Share		1.477885%
◆ Prior Proportionate Share		1.454106%
Beginning Net Pension Liability	\$ 888,400,147	\$ 12,918,280
Ending Net Pension Liability	\$ 842,013,303	\$ 12,443,989
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,070,030
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	297,264
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,367,294
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 260,264
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,755,643
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	245,683
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,261,590
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,164,731
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	59,287
Total Employer Pension Expense	\$ 78,810,662	\$ 1,224,018
Covered Payroll:	\$ 316,455,433	\$ 4,073,892
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 12,443,989
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 15,697,157
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 9,695,137
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (162,494)
◆ 2023	\$ (28,185,245)	\$ (453,092)
◆ 2024	\$ (16,012,907)	\$ (262,894)
◆ 2025	\$ (11,950,224)	\$ (132,766)
◆ 2026	\$ 6,110,282	\$ 116,950
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Spencer-East Brookfield Regional
◆ Current Proportionate Share		0.966733%
◆ Prior Proportionate Share		0.992494%
Beginning Net Pension Liability	\$ 888,400,147	\$ 8,817,317
Ending Net Pension Liability	\$ 842,013,303	\$ 8,140,017
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	699,941
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	6,321
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 706,262
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 170,247
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,148,423
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	366,420
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,685,090
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 761,888
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(94,064)
Total Employer Pension Expense	\$ 78,810,662	\$ 667,824
Covered Payroll:	\$ 316,455,433	\$ 2,883,215
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 8,140,017
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 10,268,019
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 6,341,903
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (231,144)
◆ 2023	\$ (28,185,245)	\$ (372,393)
◆ 2024	\$ (16,012,907)	\$ (246,862)
◆ 2025	\$ (11,950,224)	\$ (158,637)
◆ 2026	\$ 6,110,282	\$ 30,208
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Spencer Housing Authority
◆ Current Proportionate Share		0.082578%
◆ Prior Proportionate Share		0.076848%
Beginning Net Pension Liability	\$ 888,400,147	\$ 682,719
Ending Net Pension Liability	\$ 842,013,303	\$ 695,322
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	59,789
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	69,447
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 129,236
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 14,543
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	98,099
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	5,733
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 118,375
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 65,081
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	12,208
Total Employer Pension Expense	\$ 78,810,662	\$ 77,289
Covered Payroll:	\$ 316,455,433	\$ 249,477
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 695,322
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 877,096
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 541,727
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 1,187
◆ 2023	\$ (28,185,245)	\$ (5,038)
◆ 2024	\$ (16,012,907)	\$ 2,870
◆ 2025	\$ (11,950,224)	\$ 381
◆ 2026	\$ 6,110,282	\$ 11,461
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Sterling
◆ Current Proportionate Share		1.699069%
◆ Prior Proportionate Share		1.779236%
Beginning Net Pension Liability	\$ 888,400,147	\$ 15,806,738
Ending Net Pension Liability	\$ 842,013,303	\$ 14,306,387
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,230,173
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	499,534
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,729,707
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 299,216
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,018,397
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	629,351
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,946,964
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,339,047
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	75,914
Total Employer Pension Expense	\$ 78,810,662	\$ 1,414,961
Covered Payroll:	\$ 316,455,433	\$ 5,083,398
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 14,306,387
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 18,046,432
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 11,146,135
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (168,690)
◆ 2023	\$ (28,185,245)	\$ (457,809)
◆ 2024	\$ (16,012,907)	\$ (271,033)
◆ 2025	\$ (11,950,224)	\$ (333,712)
◆ 2026	\$ 6,110,282	\$ 13,987
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Sterling Housing Authority
◆ Current Proportionate Share		0.015481%
◆ Prior Proportionate Share		0.009285%
Beginning Net Pension Liability	\$ 888,400,147	\$ 82,489
Ending Net Pension Liability	\$ 842,013,303	\$ 130,356
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	11,209
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	48,679
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 59,888
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 2,726
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	18,391
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	28,262
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 49,379
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 12,201
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	907
Total Employer Pension Expense	\$ 78,810,662	\$ 13,108
Covered Payroll:	\$ 316,455,433	\$ 51,499
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 130,356
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 164,434
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 101,560
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (1,224)
◆ 2023	\$ (28,185,245)	\$ (4,081)
◆ 2024	\$ (16,012,907)	\$ (369)
◆ 2025	\$ (11,950,224)	\$ 8,295
◆ 2026	\$ 6,110,282	\$ 7,888
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Sturbridge
◆ Current Proportionate Share		2.264910%
◆ Prior Proportionate Share		2.232371%
Beginning Net Pension Liability	\$ 888,400,147	\$ 19,832,383
Ending Net Pension Liability	\$ 842,013,303	\$ 19,070,840
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,639,857
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	379,490
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 2,019,347
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 398,864
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,690,583
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	322,890
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 3,412,337
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,784,990
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	87,794
Total Employer Pension Expense	\$ 78,810,662	\$ 1,872,784
Covered Payroll:	\$ 316,455,433	\$ 8,005,823
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 19,070,840
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 24,056,432
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 14,858,130
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (242,681)
◆ 2023	\$ (28,185,245)	\$ (697,524)
◆ 2024	\$ (16,012,907)	\$ (387,385)
◆ 2025	\$ (11,950,224)	\$ (240,253)
◆ 2026	\$ 6,110,282	\$ 174,853
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Sutton
◆ Current Proportionate Share		1.919406%
◆ Prior Proportionate Share		1.954195%
Beginning Net Pension Liability	\$ 888,400,147	\$ 17,361,071
Ending Net Pension Liability	\$ 842,013,303	\$ 16,161,656
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,389,703
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	203,566
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,593,269
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 338,019
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,280,145
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	258,596
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,876,760
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,512,697
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	37,012
Total Employer Pension Expense	\$ 78,810,662	\$ 1,549,709
Covered Payroll:	\$ 316,455,433	\$ 7,423,699
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 16,161,656
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 20,386,715
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 12,591,579
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (237,314)
◆ 2023	\$ (28,185,245)	\$ (535,301)
◆ 2024	\$ (16,012,907)	\$ (314,370)
◆ 2025	\$ (11,950,224)	\$ (274,804)
◆ 2026	\$ 6,110,282	\$ 78,298
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Tantasqua Regional
◆ Current Proportionate Share		1.107841%
◆ Prior Proportionate Share		1.180695%
Beginning Net Pension Liability	\$ 888,400,147	\$ 10,489,295
Ending Net Pension Liability	\$ 842,013,303	\$ 9,328,169
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	802,108
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	259,597
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,061,705
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 195,097
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,316,052
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	556,813
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,067,962
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 873,097
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(28,261)
Total Employer Pension Expense	\$ 78,810,662	\$ 844,836
Covered Payroll:	\$ 316,455,433	\$ 3,882,646
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 9,328,169
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 11,766,785
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 7,267,596
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (181,215)
◆ 2023	\$ (28,185,245)	\$ (358,277)
◆ 2024	\$ (16,012,907)	\$ (224,347)
◆ 2025	\$ (11,950,224)	\$ (228,477)
◆ 2026	\$ 6,110,282	\$ (13,941)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Templeton
◆ Current Proportionate Share		1.304400%
◆ Prior Proportionate Share		1.318915%
Beginning Net Pension Liability	\$ 888,400,147	\$ 11,717,239
Ending Net Pension Liability	\$ 842,013,303	\$ 10,983,225
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	944,422
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	60,951
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,005,373
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 229,713
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,549,553
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	213,251
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,992,517
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,028,007
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(74,912)
Total Employer Pension Expense	\$ 78,810,662	\$ 953,095
Covered Payroll:	\$ 316,455,433	\$ 3,861,532
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 10,983,225
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 13,854,514
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 8,557,053
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (253,435)
◆ 2023	\$ (28,185,245)	\$ (391,831)
◆ 2024	\$ (16,012,907)	\$ (235,725)
◆ 2025	\$ (11,950,224)	\$ (169,589)
◆ 2026	\$ 6,110,282	\$ 63,436
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Templeton Housing Authority
◆ Current Proportionate Share		0.074067%
◆ Prior Proportionate Share		0.068951%
Beginning Net Pension Liability	\$ 888,400,147	\$ 612,565
Ending Net Pension Liability	\$ 842,013,303	\$ 623,654
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	53,627
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	38,026
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 91,653
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 13,044
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	87,987
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	20,591
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 121,622
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 58,373
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(963)
Total Employer Pension Expense	\$ 78,810,662	\$ 57,410
Covered Payroll:	\$ 316,455,433	\$ 98,835
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 623,654
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 786,692
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 485,890
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (10,086)
◆ 2023	\$ (28,185,245)	\$ (19,353)
◆ 2024	\$ (16,012,907)	\$ (8,179)
◆ 2025	\$ (11,950,224)	\$ (2,611)
◆ 2026	\$ 6,110,282	\$ 10,260
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Upton
◆ Current Proportionate Share		1.024691%
◆ Prior Proportionate Share		1.035698%
Beginning Net Pension Liability	\$ 888,400,147	\$ 9,201,143
Ending Net Pension Liability	\$ 842,013,303	\$ 8,628,031
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	741,904
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	187,859
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 929,763
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 180,454
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,217,274
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	81,822
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,479,550
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 807,565
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	122,549
Total Employer Pension Expense	\$ 78,810,662	\$ 930,114
Covered Payroll:	\$ 316,455,433	\$ 4,109,441
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 8,628,031
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 10,883,613
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 6,722,116
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (38,319)
◆ 2023	\$ (28,185,245)	\$ (271,479)
◆ 2024	\$ (16,012,907)	\$ (153,945)
◆ 2025	\$ (11,950,224)	\$ (136,323)
◆ 2026	\$ 6,110,282	\$ 50,279
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Uxbridge
◆ Current Proportionate Share		2.967660%
◆ Prior Proportionate Share		3.048999%
Beginning Net Pension Liability	\$ 888,400,147	\$ 27,087,311
Ending Net Pension Liability	\$ 842,013,303	\$ 24,988,090
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,148,668
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	107,440
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 2,256,108
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 522,622
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	3,525,410
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	995,746
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 5,043,778
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,338,832
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(245,595)
Total Employer Pension Expense	\$ 78,810,662	\$ 2,093,237
Covered Payroll:	\$ 316,455,433	\$ 9,275,796
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 24,988,090
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 31,520,599
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 19,468,272
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (711,373)
◆ 2023	\$ (28,185,245)	\$ (1,031,973)
◆ 2024	\$ (16,012,907)	\$ (666,892)
◆ 2025	\$ (11,950,224)	\$ (467,623)
◆ 2026	\$ 6,110,282	\$ 90,191
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Uxbridge Housing Authority
◆ Current Proportionate Share		0.093979%
◆ Prior Proportionate Share		0.088977%
Beginning Net Pension Liability	\$ 888,400,147	\$ 790,472
Ending Net Pension Liability	\$ 842,013,303	\$ 791,312
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	68,043
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	56,054
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 124,097
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 16,550
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	111,641
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	24,072
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 152,263
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 74,065
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(12,871)
Total Employer Pension Expense	\$ 78,810,662	\$ 61,194
Covered Payroll:	\$ 316,455,433	\$ 218,097
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 791,312
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 998,181
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 616,513
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (22,549)
◆ 2023	\$ (28,185,245)	\$ (12,130)
◆ 2024	\$ (16,012,907)	\$ (2,719)
◆ 2025	\$ (11,950,224)	\$ (2,112)
◆ 2026	\$ 6,110,282	\$ 11,344
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Wachusett Regional
◆ Current Proportionate Share		3.178198%
◆ Prior Proportionate Share		3.094171%
Beginning Net Pension Liability	\$ 888,400,147	\$ 27,488,623
Ending Net Pension Liability	\$ 842,013,303	\$ 26,760,851
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	2,301,104
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,018,373
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 3,319,477
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 559,699
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	3,775,517
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	835,287
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 5,170,503
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 2,504,759
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	198,334
Total Employer Pension Expense	\$ 78,810,662	\$ 2,703,093
Covered Payroll:	\$ 316,455,433	\$ 11,100,577
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 26,760,851
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 33,756,804
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 20,849,433
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (226,527)
◆ 2023	\$ (28,185,245)	\$ (1,064,537)
◆ 2024	\$ (16,012,907)	\$ (596,370)
◆ 2025	\$ (11,950,224)	\$ (251,942)
◆ 2026	\$ 6,110,282	\$ 288,350
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Warren
◆ Current Proportionate Share		0.625799%
◆ Prior Proportionate Share		0.598573%
Beginning Net Pension Liability	\$ 888,400,147	\$ 5,317,720
Ending Net Pension Liability	\$ 842,013,303	\$ 5,269,309
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	453,096
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	270,452
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 723,548
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 110,207
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	743,413
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	213,101
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 1,066,721
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 493,196
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	40,787
Total Employer Pension Expense	\$ 78,810,662	\$ 533,983
Covered Payroll:	\$ 316,455,433	\$ 1,604,580
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 5,269,309
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 6,646,837
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 4,105,329
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (53,374)
◆ 2023	\$ (28,185,245)	\$ (208,530)
◆ 2024	\$ (16,012,907)	\$ (113,066)
◆ 2025	\$ (11,950,224)	\$ (36,951)
◆ 2026	\$ 6,110,282	\$ 68,748
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Warren Water District
◆ Current Proportionate Share		0.029993%
◆ Prior Proportionate Share		0.029001%
Beginning Net Pension Liability	\$ 888,400,147	\$ 257,649
Ending Net Pension Liability	\$ 842,013,303	\$ 252,547
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	21,716
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	17,939
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 39,655
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 5,282
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	35,630
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,791
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 42,703
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 23,638
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	7,682
Total Employer Pension Expense	\$ 78,810,662	\$ 31,320
Covered Payroll:	\$ 316,455,433	\$ 95,215
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 252,547
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 318,569
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 196,760
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 3,045
◆ 2023	\$ (28,185,245)	\$ (5,214)
◆ 2024	\$ (16,012,907)	\$ (1,601)
◆ 2025	\$ (11,950,224)	\$ (2,224)
◆ 2026	\$ 6,110,282	\$ 2,946
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Westboro
◆ Current Proportionate Share		6.839560%
◆ Prior Proportionate Share		6.689655%
Beginning Net Pension Liability	\$ 888,400,147	\$ 59,430,911
Ending Net Pension Liability	\$ 842,013,303	\$ 57,590,002
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	4,952,034
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	1,385,685
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 6,337,719
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 1,204,488
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	8,125,004
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	332,287
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 9,661,779
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 5,390,299
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	231,875
Total Employer Pension Expense	\$ 78,810,662	\$ 5,622,174
Covered Payroll:	\$ 316,455,433	\$ 21,400,789
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 57,590,002
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 72,645,462
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 44,868,487
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (745,855)
◆ 2023	\$ (28,185,245)	\$ (1,721,166)
◆ 2024	\$ (16,012,907)	\$ (901,116)
◆ 2025	\$ (11,950,224)	\$ (541,828)
◆ 2026	\$ 6,110,282	\$ 585,905
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Westboro Housing Authority
◆ Current Proportionate Share		0.076319%
◆ Prior Proportionate Share		0.076261%
Beginning Net Pension Liability	\$ 888,400,147	\$ 677,502
Ending Net Pension Liability	\$ 842,013,303	\$ 642,613
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	55,257
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	47,264
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 102,521
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 13,440
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	90,662
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	3,532
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 107,634
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 60,147
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	19,669
Total Employer Pension Expense	\$ 78,810,662	\$ 79,816
Covered Payroll:	\$ 316,455,433	\$ 197,790
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 642,613
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 810,607
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 500,661
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 8,113
◆ 2023	\$ (28,185,245)	\$ (7,976)
◆ 2024	\$ (16,012,907)	\$ (494)
◆ 2025	\$ (11,950,224)	\$ (9,483)
◆ 2026	\$ 6,110,282	\$ 4,727
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	West Boylston
◆ Current Proportionate Share		2.048022%
◆ Prior Proportionate Share		2.129289%
Beginning Net Pension Liability	\$ 888,400,147	\$ 18,916,606
Ending Net Pension Liability	\$ 842,013,303	\$ 17,244,618
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,482,825
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	287,189
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,770,014
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 360,669
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,432,933
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	711,274
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 3,504,876
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,614,060
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(40,597)
Total Employer Pension Expense	\$ 78,810,662	\$ 1,573,463
Covered Payroll:	\$ 316,455,433	\$ 5,581,099
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 17,244,618
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 21,752,790
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 13,435,317
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (326,801)
◆ 2023	\$ (28,185,245)	\$ (650,118)
◆ 2024	\$ (16,012,907)	\$ (403,403)
◆ 2025	\$ (11,950,224)	\$ (388,619)
◆ 2026	\$ 6,110,282	\$ 34,079
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	West Boylston Housing Authority
◆ Current Proportionate Share		0.024913%
◆ Prior Proportionate Share		0.009282%
Beginning Net Pension Liability	\$ 888,400,147	\$ 82,462
Ending Net Pension Liability	\$ 842,013,303	\$ 209,767
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	18,037
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	119,186
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 137,223
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 4,387
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	29,595
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	41,813
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 75,795
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 19,634
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	8,833
Total Employer Pension Expense	\$ 78,810,662	\$ 28,467
Covered Payroll:	\$ 316,455,433	\$ 60,098
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 209,767
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 264,605
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 163,430
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 5,540
◆ 2023	\$ (28,185,245)	\$ 5,040
◆ 2024	\$ (16,012,907)	\$ 9,756
◆ 2025	\$ (11,950,224)	\$ 22,057
◆ 2026	\$ 6,110,282	\$ 19,035
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	West Boylston Water District
◆ Current Proportionate Share		0.103468%
◆ Prior Proportionate Share		0.109248%
Beginning Net Pension Liability	\$ 888,400,147	\$ 970,558
Ending Net Pension Liability	\$ 842,013,303	\$ 871,213
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	74,914
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	76,859
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 151,773
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 18,221
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	122,914
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	44,082
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 185,217
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 81,544
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	17,237
Total Employer Pension Expense	\$ 78,810,662	\$ 98,781
Covered Payroll:	\$ 316,455,433	\$ 410,802
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 871,213
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 1,098,970
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 678,764
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 2,096
◆ 2023	\$ (28,185,245)	\$ (11,754)
◆ 2024	\$ (16,012,907)	\$ (4,081)
◆ 2025	\$ (11,950,224)	\$ (19,551)
◆ 2026	\$ 6,110,282	\$ (154)
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	West Brookfield
◆ Current Proportionate Share		0.454828%
◆ Prior Proportionate Share		0.479179%
Beginning Net Pension Liability	\$ 888,400,147	\$ 4,257,026
Ending Net Pension Liability	\$ 842,013,303	\$ 3,829,713
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	329,308
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	78,125
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 407,433
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 80,098
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	540,310
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	184,934
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 805,342
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 358,453
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(28,892)
Total Employer Pension Expense	\$ 78,810,662	\$ 329,561
Covered Payroll:	\$ 316,455,433	\$ 1,374,627
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 3,829,713
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 4,830,896
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 2,983,737
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (79,536)
◆ 2023	\$ (28,185,245)	\$ (141,163)
◆ 2024	\$ (16,012,907)	\$ (92,104)
◆ 2025	\$ (11,950,224)	\$ (85,607)
◆ 2026	\$ 6,110,282	\$ 501
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Westminster
◆ Current Proportionate Share		1.405503%
◆ Prior Proportionate Share		1.432805%
Beginning Net Pension Liability	\$ 888,400,147	\$ 12,729,042
Ending Net Pension Liability	\$ 842,013,303	\$ 11,834,523
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,017,623
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	64,036
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 1,081,659
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 247,517
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	1,669,657
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	343,238
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 2,260,412
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,107,686
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(68,107)
Total Employer Pension Expense	\$ 78,810,662	\$ 1,039,579
Covered Payroll:	\$ 316,455,433	\$ 4,105,057
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 11,834,523
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 14,928,362
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 9,220,301
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (269,177)
◆ 2023	\$ (28,185,245)	\$ (468,132)
◆ 2024	\$ (16,012,907)	\$ (295,376)
◆ 2025	\$ (11,950,224)	\$ (201,356)
◆ 2026	\$ 6,110,282	\$ 55,288
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Winchendon
◆ Current Proportionate Share		2.522865%
◆ Prior Proportionate Share		2.537101%
Beginning Net Pension Liability	\$ 888,400,147	\$ 22,539,606
Ending Net Pension Liability	\$ 842,013,303	\$ 21,242,856
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	1,826,624
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	219,652
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 2,046,276
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 444,291
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	2,997,019
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	542,038
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 3,983,348
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 1,988,286
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(238,280)
Total Employer Pension Expense	\$ 78,810,662	\$ 1,750,006
Covered Payroll:	\$ 316,455,433	\$ 6,075,619
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 21,242,856
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 26,796,266
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 16,550,352
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ (563,257)
◆ 2023	\$ (28,185,245)	\$ (714,807)
◆ 2024	\$ (16,012,907)	\$ (429,839)
◆ 2025	\$ (11,950,224)	\$ (367,371)
◆ 2026	\$ 6,110,282	\$ 138,202
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Worcester Regional Retirement System	Winchendon Housing Authority
◆ Current Proportionate Share		0.193325%
◆ Prior Proportionate Share		0.190893%
Beginning Net Pension Liability	\$ 888,400,147	\$ 1,695,895
Ending Net Pension Liability	\$ 842,013,303	\$ 1,627,819
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ -	\$ -
◆ Changes of Assumptions	72,402,779	139,972
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	128,957
Total Deferred Outflows of Resources	\$ 96,619,703	\$ 268,929
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 17,610,586	\$ 34,046
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	118,794,275	229,659
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	24,216,924	-
Total Deferred Inflows of Resources	\$ 160,621,785	\$ 263,705
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 78,810,662	\$ 152,360
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	53,372
Total Employer Pension Expense	\$ 78,810,662	\$ 205,732
Covered Payroll:	\$ 316,455,433	\$ 581,600
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 842,013,303	\$ 1,627,819
◆ 1% decrease in the discount rate: 6.25%	\$ 1,062,136,523	\$ 2,053,371
◆ 1% increase in the discount rate: 8.25%	\$ 656,014,261	\$ 1,268,237
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (13,963,988)	\$ 24,303
◆ 2023	\$ (28,185,245)	\$ (16,019)
◆ 2024	\$ (16,012,907)	\$ 1,629
◆ 2025	\$ (11,950,224)	\$ (19,225)
◆ 2026	\$ 6,110,282	\$ 14,536
◆ Thereafter	\$ -	\$ -

APPENDIX D - CALCULATION OF SINGLE DISCOUNT RATE

Under GASB 67, a series of projections and calculations are used to determine the discount rate for the purpose of the measurement of the Total Pension Liability. The discount rate is the single rate that reflects (1) the long-term expected rate of return on pension plan investments that are expected to be used to finance the payment of benefits, to the extent that the pension plan's Fiduciary Net Position is projected to be sufficient to make projected benefit payments and pension plan assets are expected to be invested using a strategy to achieve that return, and (2) a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher, to the extent that the conditions for use of the long-term expected rate of return are not met.

Projected cash flows into and out of the pension plan are assumed to be contributions to the pension plan, benefit payments, pension plan administrative expenses and pension plan investment earnings. These projected cash flows are used to project the pension plan's Fiduciary Net Position at the beginning of each period. The pension plan's projected Fiduciary Net Position at the beginning of each period is compared to the amount of benefit payments projected to occur in that period.

It is assumed that the pension plan's Fiduciary Net Position is expected to always be invested using a strategy to achieve the long-term expected rate of return on pension plan investments.

The benefit payments that are projected to occur in a period are discounted using the long-term expected rate of return on pension plan investments if the amount of the pension plan's beginning Fiduciary Net Position is projected to be sufficient to make the benefit payments in that period. In periods in which benefit payments are projected to be greater than the amount of the pension plan's Fiduciary Net Position, they are discounted using a municipal bond rate as required by GASB 67.

For purposes of this valuation, the long-term expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 2.06%, based on the December 2021 Bond Buyer Index as published by the Federal Reserve. For each period, the pension plan's Fiduciary Net Position is projected to be sufficient to make the benefit payments in that period, therefore, the resulting single discount rate is based solely on the long-term expected rate of return of 7.25%.