



FRANKLIN 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

July, 2022



July 15, 2022

Mr. Dale Kowacki
Executive Director
Franklin Regional Retirement System
101 Munson Street, Suite 108
Greenfield, MA 01301

Dear Dale:

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 Franklin 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, 2022.

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 Franklin 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.

K M S A C T U A R I E S

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Mr. Dale Kowacki

July 15, 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 Franklin 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 Franklin 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 Franklin 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 Franklin 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, 2022	January 1, 2020	
Membership Data			
Active Plan Members	993	1,066	(6.8%)
Inactive Members Currently in Receipt	675	666	1.4%
Inactive Members Deferred	731	625	17.0%
Total Plan Members	2,399	2,357	1.8%
Covered Payroll	\$33,981,821	\$32,646,666	4.1%
Net Pension Liability			
Discount Rate	7.25%	7.75%	
Total Pension Liability (TPL)	\$235,181,218	\$214,134,900	9.8%
Fiduciary Net Position (FNP)	204,723,135	173,563,336	18.0%
Net Pension Liability (NPL)	\$30,458,083	\$40,571,564	(24.9%)
FNP as % of TPL	87.0%	81.1%	
Pension Expense			
Pension Expense	\$2,018,196	\$4,930,734	(59.1%)
Deferred Outflows	\$10,347,479	\$1,071,889	
Deferred Inflows	\$23,525,511	\$9,803,220	
Recognition Period	4.23	4.65	

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, 2022 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

Some of the Actuarial Assumptions and Methods used in these disclosures have changed since the last measurement date, including reducing the investment return rate from 7.75% to 7.25% and updating the mortality improvement scale. 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 \$2,018,196 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 Franklin 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			
		2021	2020
Cash	\$	1,428,506	\$ 1,492,254
Individually Owned Short Term Investments		0	0
Fixed Income Securities		0	0
Equities (at market value)		46,115,107	40,147,813
Pooled Short Term Funds		0	0
Pooled Domestic Equity Funds		20,270,614	17,993,897
Pooled International Equity Funds		10,067,161	9,421,021
Pooled Global Equity Funds		0	0
Pooled Domestic Fixed Income Funds		16,579,640	13,716,973
Pooled International Fixed Income Funds		0	0
Pooled Global Fixed Income Funds		7,130,456	6,890,847
Pooled Alternative/Private Equity		0	0
Pooled Real Estate Funds		21,328,297	16,762,607
Pooled Domestic Balanced Funds		0	0
Pooled International Balanced Funds		0	0
Hedge Funds		0	0
PRIT Cash		0	0
PRIT Fund		84,287,399	69,246,008
Interest Due and Accrued		29	14
Prepaid Expenses		7,487	8,308
Accounts Receivable (A)		90,383	93,184
Land		0	0
Buildings		0	0
Accumulated Depreciation - Buildings		0	0
Accounts Payable (A)		(2,581,944)	(2,209,591)
Auditor or Other Adjustments		0	0
Total Market Value of Assets	\$	204,723,135	\$ 173,563,335

SECTION 1 - PRINCIPAL VALUATION RESULTS

Fiscal Year Ended December 31	Fiduciary Net Position	
	2021	2020
Asset Activity		
Market value as of beginning of year	\$ 173,563,336	\$ 157,113,481
Contributions - employer	7,684,976	7,268,256
Contributions - member	3,931,795	3,318,356
Net investment income	34,086,366	19,627,421
Benefit payments, including refunds of member contributions	(13,937,441)	(13,173,421)
Administrative expenses	(605,897)	(590,757)
Other	0	0
Market Value as of end of year	\$ 204,723,135	\$ 173,563,336
Money-Weighted Rate of Return	19.76%	13.19%
(Gain) / Loss on Pension Plan Investments		
Projected earnings	\$ 13,298,963	\$ 12,027,192
Actual earnings	34,086,366	19,627,421
(Gain) / Loss on pension plan investments	\$ (20,787,403)	\$ (7,600,229)

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, 2022.

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	\$ 93,407,885
b. Retired and Disabled Members and Beneficiaries	116,032,970
c. Inactive Members	4,694,045
d. Total Pension Liability at 7.75% (a. + b. + c.)	\$ 214,134,900
2. Service Cost	\$ 5,631,075
3. Benefit Payments	(13,937,441)
4. Interest [7.75% x (1.d. + 2. + .5 x 3)]	\$ 16,491,787
5. Changes of benefit terms	-
6. Differences between expected and actual experience	3,955,362
7. Changes of assumptions or other inputs	8,905,535
8. Total Pension Liability, end of year (1.d. + 2. + 3. + 4. + 5. + 6. + 7.)	
a. Actives	\$ 91,208,896
b. Retired and Disabled Members and Beneficiaries	139,213,093
c. Inactive Members	4,759,229
d. Total Pension Liability at 7.25% (a. + b. + c.)	\$ 235,181,218

SECTION 2 - NOTES TO THE FINANCIAL STATEMENTS

Plan Description

Plan administration

The Franklin Regional Retirement System (the "System") is a cost-sharing, multiple-employer defined benefit pension plan that provides pensions for eligible employees of 36 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	675
Inactive plan members entitled to but not yet receiving benefits	731
Active plan members	993
	<hr/>
	2,399

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 \$17,000 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, 2022 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	\$ 235,181,218
Fiduciary Net Position	(204,723,135)
Net Pension Liability	\$ 30,458,083

Fiduciary Net Position as a percentage of the Total Pension Liability 87.0%

Actuarial assumptions

The Total Pension Liability was determined by an actuarial valuation as of January 1, 2022, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.4% per year
Salary increases	Group 1: 6% - 4%, based on service Group 4: 7% - 4.5%, 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
PRIT Core	40%	6.50%
Domestic Equity	32%	9.38%
International Equity	5%	7.10%
Real Estate	10%	6.60%
Fixed Income	13%	2.00%
Total	100%	

¹ Provided by Dahab Associates, 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	\$ 261,481,302	\$ 235,181,218	\$ 212,924,184
Fiduciary Net Position	204,723,135	204,723,135	204,723,135
Net Pension Liability	\$ 56,758,167	\$ 30,458,083	\$ 8,201,049

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	\$ 5,631,075	\$ 5,440,652	\$ 5,265,765	\$ 5,063,236	\$ 5,207,589
Interest	16,491,787	15,875,568	15,239,247	14,639,832	13,899,079
Changes of benefit terms	-	-	-	-	(293,031)
Differences between expected and actual experience	3,955,362	-	(999,252)	-	1,964,150
Changes of assumptions	8,905,535	-	1,485,132	-	180,697
Benefit payments, including refunds of member contributions	(13,937,441)	(13,173,421)	(12,736,941)	(11,605,484)	(10,906,590)
Net change in Total Pension Liability	<u>\$ 21,046,318</u>	<u>\$ 8,142,799</u>	<u>\$ 8,253,951</u>	<u>\$ 8,097,584</u>	<u>\$ 10,051,894</u>
Total Pension Liability--beginning	<u>\$ 214,134,900</u>	<u>\$ 205,992,101</u>	<u>\$ 197,738,150</u>	<u>\$ 189,640,566</u>	<u>\$ 179,588,672</u>
Total Pension Liability--ending (a)	<u><u>\$ 235,181,218</u></u>	<u><u>\$ 214,134,900</u></u>	<u><u>\$ 205,992,101</u></u>	<u><u>\$ 197,738,150</u></u>	<u><u>\$ 189,640,566</u></u>
Fiduciary Net Position					
Contributions--employer	\$ 7,684,976	\$ 7,268,256	\$ 6,871,971	\$ 6,506,893	\$ 6,166,761
Contributions--member	3,931,795	3,318,356	3,639,392	3,281,580	3,310,425
Net investment income	34,086,366	19,627,421	23,505,988	(5,160,455)	18,794,508
Benefit payments, including refunds of member contributions	(13,937,441)	(13,173,421)	(12,736,941)	(11,605,484)	(10,906,590)
Administrative expenses	(605,897)	(590,757)	(567,347)	(542,267)	(495,399)
Other	-	-	-	-	-
Net change in Fiduciary Net Position	<u>\$ 31,159,799</u>	<u>\$ 16,449,855</u>	<u>\$ 20,713,063</u>	<u>\$ (7,519,733)</u>	<u>\$ 16,869,705</u>
Fiduciary Net Position--beginning	<u>\$ 173,563,336</u>	<u>\$ 157,113,481</u>	<u>\$ 136,400,418</u>	<u>\$ 143,920,151</u>	<u>\$ 127,050,446</u>
Fiduciary Net Position--ending (b)	<u><u>\$ 204,723,135</u></u>	<u><u>\$ 173,563,336</u></u>	<u><u>\$ 157,113,481</u></u>	<u><u>\$ 136,400,418</u></u>	<u><u>\$ 143,920,151</u></u>
Net Pension Liability and Related Ratios					
Net Pension Liability--ending (a) - (b)	<u><u>\$ 30,458,083</u></u>	<u><u>\$ 40,571,564</u></u>	<u><u>\$ 48,878,620</u></u>	<u><u>\$ 61,337,732</u></u>	<u><u>\$ 45,720,415</u></u>
Fiduciary Net Position as a percentage of the Total Pension Liability	87.05%	81.05%	76.27%	68.98%	75.89%
Covered Payroll	\$ 33,981,821	\$ 32,646,666	\$ 31,398,150	\$ 30,220,970	\$ 29,460,407
Net Pension Liability as a percentage of Covered Payroll	89.63%	124.27%	155.67%	202.96%	155.19%

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	\$ 5,089,632	\$ 4,703,273	\$ 4,703,273		
Interest	12,791,108	12,116,265	11,306,271		
Changes of benefit terms	1,003,761	\$ 962,410	\$ -		
Differences between expected and actual experience	(146,259)	-	-		
Changes of assumptions	5,736,511	\$ -	\$ -		
Benefit payments, including refunds of member contributions	(9,686,040)	(9,235,255)	(11,287,291)		
Net change in Total Pension Liability	<u>\$ 14,788,713</u>	<u>\$ 8,546,693</u>	<u>\$ 4,722,253</u>		
Total Pension Liability--beginning	<u>\$ 164,799,959</u>	<u>\$ 156,253,266</u>	<u>\$ 151,531,013</u>		
Total Pension Liability--ending (a)	<u><u>\$ 179,588,672</u></u>	<u><u>\$ 164,799,959</u></u>	<u><u>\$ 156,253,266</u></u>		
Fiduciary Net Position					
Contributions--employer	\$ 5,875,820	\$ 5,645,345	\$ 5,418,158		
Contributions--member	3,098,432	2,971,069	3,270,956		
Net investment income	10,050,389	\$ 579,359	\$ 8,362,434		
Benefit payments, including refunds of member contributions	(9,686,040)	(9,235,255)	(11,287,291)		
Administrative expenses	(498,301)	\$ (469,365)	\$ (403,802)		
Other	-	-	-		
Net change in Fiduciary Net Position	<u>\$ 8,840,300</u>	<u>\$ (508,847)</u>	<u>\$ 5,360,455</u>		
Fiduciary Net Position--beginning	<u>\$ 118,210,146</u>	<u>\$ 118,718,993</u>	<u>\$ 113,358,538</u>		
Fiduciary Net Position--ending (b)	<u><u>\$ 127,050,446</u></u>	<u><u>\$ 118,210,146</u></u>	<u><u>\$ 118,718,993</u></u>		
Net Pension Liability and Related Ratios					
Net Pension Liability--ending (a) - (b)	<u><u>\$ 52,538,226</u></u>	<u><u>\$ 46,589,813</u></u>	<u><u>\$ 37,534,273</u></u>		
Fiduciary Net Position as a percentage of the Total Pension Liability	70.75%	71.73%	75.98%		
Covered Payroll	\$ 33,556,164	\$ 32,088,838	\$ 30,854,652		
Net Pension Liability as a percentage of Covered Payroll	156.57%	145.19%	121.65%		

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	\$ 7,684,976	\$ 7,268,256	\$ 6,871,971	\$ 6,506,893	\$ 6,166,761
Contributions in relation to the Actuarially Determined Contribution	<u>7,684,976</u>	<u>7,268,256</u>	<u>6,871,971</u>	<u>6,506,893</u>	<u>6,166,761</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	\$ 33,981,821	\$ 32,646,666	\$ 31,398,150	\$ 30,220,970	\$ 29,460,407
Contributions as a percentage of Covered Payroll	22.61%	22.26%	21.89%	21.53%	20.93%

The contribution shown above, \$7,684,976, represents the actual contributions made by member units of the Franklin 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	\$ 5,875,820	\$ 5,645,345	\$ 5,888,495		
Contributions in relation to the Actuarially Determined Contribution	<u>5,875,820</u>	<u>\$ 5,645,345</u>	<u>\$ 5,888,495</u>		
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>		
Covered Payroll	\$ 33,556,164	\$ 32,088,838	\$ 30,854,652		
Contributions as a percentage of Covered Payroll	17.51%	17.59%	19.08%		

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	19.76%	13.19%	17.04%	-4.05%	14.48%	8.24%	0.57%	7.37%		

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

Some of the Actuarial Assumptions and Methods used in these disclosures have changed since the last measurement date, including reducing the investment return rate from 7.75% to 7.25% and updating the mortality improvement scale. 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 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:

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, 2034. The annual increase in appropriation is further limited to 5.94%.
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) 75% of gains and losses of the prior year, b) 50% of gains and losses of the second prior year, and c) 25% of gains and losses of the third 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 90% or more than 110% of market value.
Inflation	2.4% per year
Salary increases	Group 1: 6% - 4%, based on service Group 4: 7% - 4.5%, based on service
Payroll growth	3.25% per year
Investment rate of return	7.25%, 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	
	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	\$ -	\$ 146,259	\$ (146,259)	\$ -	\$ -	
2017	1,964,150	-	1,964,150	-	-	
2018	-	-	-	-	-	
2019	-	999,252	(644,679)	-	354,573	
2020	-	-	-	-	-	
2021	3,955,362	-	935,074	3,020,288	-	
Total				<u>\$ 3,020,288</u>	<u>\$ 354,573</u>	

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	
	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	\$ 5,736,511	\$ -	\$ 5,736,511	\$ -	\$ -	
2017	180,697	-	180,697	-	-	
2018	-	-	-	-	-	
2019	1,485,132	-	958,149	526,983	-	
2020	-	-	-	-	-	
2021	8,905,535	-	2,105,327	6,800,208	-	
Total				<u>\$ 7,327,191</u>	<u>\$ -</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 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	\$ -	\$ 935,994	\$ (935,994)	\$ -	\$ -
2017	-	9,022,685	(9,022,685)	-	-
2018	16,222,845	-	12,978,276	3,244,569	-
2019	-	13,063,620	(7,838,172)	-	5,225,448
2020	-	7,600,229	(3,040,092)	-	4,560,137
2021	-	20,787,403	(4,157,481)	-	16,629,922
Subtotal				\$ 3,244,569	\$ 26,415,507
Net				\$ -	\$ 23,170,938

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	\$ 686,573	\$ 686,573	\$ 686,573	\$ -	\$ -	
2017	677,438	677,438	677,438	-	-	
2018	405,157	405,157	362,555	42,602	42,602	
2019	935,437	935,437	603,510	331,927	331,927	
2020	643,136	643,136	276,618	366,518	366,518	
2021	521,465	521,465	123,277	398,188	398,188	
Total				\$ 1,139,235	\$ 1,139,235	

* 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	\$	(1,900,791)
2023	\$	(5,181,930)
2024	\$	(2,637,124)
2025	\$	(3,458,187)
2026	\$	-
Thereafter	\$	-
Total Deferred Outflows	\$	11,486,714
Total Deferred Inflows	\$	24,664,746

SECTION 4 - EMPLOYER REPORTING AMOUNTS UNDER GASB 68

Exhibit 4.2 - Pension Expense

Fiscal Year Ended December 31, 2021

1. Service cost		\$ 5,631,075
2. Interest on the total pension liability		
a. Total Pension Liability, beginning of year	214,134,900	
b. Service cost, beginning of year	5,631,075	
c. Benefit payments, including refunds of employee contributions	(13,937,441)	
d. Interest on Total Pension Liability		16,491,787
3. Differences between expected and actual experience		926,703
4. Changes of benefit terms		-
5. Changes of assumptions		2,443,711
6. Employee contributions		(3,931,795)
7. Projected earnings on pension plan investments		
a. Fiduciary Net Position, beginning of year	173,563,336	
b. Employer contributions	7,684,976	
c. Employee contributions	3,931,795	
d. Benefit payments, including refunds of employee contributions	(13,937,441)	
e. Administrative expenses and other	(605,897)	
f. Total projected earnings		(13,298,963)
8. Differences between projected and actual earnings on plan investments		(6,850,219)
9. Pension plan administrative expenses		605,897
10. Other changes in Fiduciary Net Position		-
11. Total Pension Expense		<u>\$ 2,018,196</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
Town of Ashfield	115,925	1.508463%	105,992	1.458287%
Town of Bernardston	124,370	1.618352%	116,882	1.608116%
Bernardston Fire & Water District	4,606	0.059935%	4,356	0.059932%
Town of Buckland	144,331	1.878093%	140,839	1.937728%
Town of Charlemont	83,682	1.088904%	79,599	1.095160%
Town of Colrain	105,945	1.378599%	95,828	1.318446%
Town of Conway	220,335	2.867088%	208,354	2.866630%
Town of Deerfield	740,079	9.630206%	691,853	9.518831%
Town of Erving	376,949	4.905012%	348,467	4.794369%
Franklin County Regional Housing Authority	287,009	3.734677%	279,538	3.846012%
Franklin County Solid Waste Management District	31,585	0.410997%	31,060	0.427338%
Franklin Regional Council of Governments	-	0.000000%	-	0.000000%
Franklin Regional Transit Authority	91,499	1.190622%	87,263	1.200604%
Frontier Regional School District	468,307	6.093799%	447,200	6.152783%
Town of Gill	102,106	1.328644%	98,733	1.358414%
Hawlemont Regional School District	76,004	0.988995%	69,694	0.958882%
Town of Hawley	35,315	0.459533%	32,668	0.449461%
Town of Heath	74,469	0.969021%	69,012	0.949499%
Town of Leverett	199,607	2.597367%	199,643	2.746780%
Town of Leyden	34,547	0.449539%	32,668	0.449461%
Mahar Regional School District	370,807	4.825090%	370,247	5.094028%
Mohawk Regional School District	727,028	9.460381%	679,511	9.349024%
Town of Monroe	28,406	0.369630%	26,135	0.359577%
Town of New Salem	59,882	0.779209%	58,078	0.799064%
New Salem/Wendell Union School District	172,736	2.247710%	154,633	2.127512%
Town of Northfield	201,910	2.627334%	188,753	2.596950%
Town of Orange	1,008,777	13.126612%	944,486	12.994672%
Orange Housing Authority	8,444	0.109877%	7,986	0.109875%
Pioneer Valley Regional School District	499,016	6.493397%	487,854	6.712119%
Town of Rowe	151,240	1.967996%	140,839	1.937728%
Town of Shelburne	145,099	1.888087%	138,661	1.907762%

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
Shelburne Falls Fire District	48,367	0.629371%	45,737	0.629271%
Town of Shutesbury	227,244	2.956990%	216,340	2.976505%
South Deerfield Fire District	21,496	0.279715%	17,423	0.239714%
South Deerfield Water Supply District	43,760	0.569423%	39,203	0.539373%
Town of Sunderland	327,815	4.265661%	299,101	4.115169%
Town of Warwick	61,417	0.799183%	58,804	0.809052%
Town of Wendell	57,579	0.749241%	55,900	0.769098%
Town of Whately	207,283	2.697250%	198,916	2.736778%
Total	7,684,976	100.000000%	7,268,256	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 2016.
- ◆ 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 2016.

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	\$ 173,563,336	12	1.00	\$ 207,862,688
Monthly net external cash flows:				
January	(887,987)	11	0.92	(1,047,608)
February	(928,614)	10	0.83	(1,079,197)
March	(1,436,519)	9	0.75	(1,644,562)
April	(925,192)	8	0.67	(1,043,384)
May	(681,689)	7	0.58	(757,308)
June	(667,060)	6	0.50	(730,002)
July	6,589,003	5	0.42	7,103,173
August	(921,106)	4	0.33	(978,174)
September	(824,047)	3	0.25	(862,049)
October	(812,971)	2	0.17	(837,777)
November	(534,581)	1	0.08	(542,675)
December	(719,990)	0	0.00	(719,990)
Ending value - December 31, 2021				\$ 204,723,135
Money-weighted rate of return				19.76%

Note: Beginning and ending values are based on amounts reported in the System's 2021 Annual Statement, 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	(146,259)	4.54	-	-	-	-	-	-	-	-	-	-
2017	1,964,150	4.47	206,522	-	-	-	-	-	-	-	-	-
2018	-	4.47	-	-	-	-	-	-	-	-	-	-
2019	(999,252)	4.65	(214,893)	(214,893)	(139,680)	-	-	-	-	-	-	-
2020	-	4.65	-	-	-	-	-	-	-	-	-	-
2021	3,955,362	4.23	935,074	935,074	935,074	935,074	215,066	-	-	-	-	-
Net Increase (Decrease) in Pension Expense			926,703	720,181	795,394	935,074	215,066	-	-	-	-	-

Year	Changes of Assumptions	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2016	5,736,511	4.54	-	-	-	-	-	-	-	-	-	-
2017	180,697	4.47	19,001	-	-	-	-	-	-	-	-	-
2018	-	4.47	-	-	-	-	-	-	-	-	-	-
2019	1,485,132	4.65	319,383	319,383	207,600	-	-	-	-	-	-	-
2020	-	4.65	-	-	-	-	-	-	-	-	-	-
2021	8,905,535	4.23	2,105,327	2,105,327	2,105,327	2,105,327	484,227	-	-	-	-	-
Net Increase (Decrease) in Pension Expense			2,443,711	2,424,710	2,312,927	2,105,327	484,227	-	-	-	-	-

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	(935,994)	5	-	-	-	-	-	-	-	-	-	-
2017	(9,022,685)	5	(1,804,537)	-	-	-	-	-	-	-	-	-
2018	16,222,845	5	3,244,569	3,244,569	-	-	-	-	-	-	-	-
2019	(13,063,620)	5	(2,612,724)	(2,612,724)	(2,612,724)	-	-	-	-	-	-	-
2020	(7,600,229)	5	(1,520,046)	(1,520,046)	(1,520,046)	(1,520,045)	-	-	-	-	-	-
2021	(20,787,403)	5	(4,157,481)	(4,157,481)	(4,157,481)	(4,157,480)	(4,157,480)	-	-	-	-	-
Net Increase (Decrease) in Pension Expense			(6,850,219)	(5,045,682)	(8,290,251)	(5,677,525)	(4,157,480)	-	-	-	-	-

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Ashfield
◆ Current Proportionate Share		1.508463%
◆ Prior Proportionate Share		1.458287%
Beginning Net Pension Liability	\$ 40,571,564	\$ 591,650
Ending Net Pension Liability	\$ 30,458,084	\$ 459,449
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 45,560
◆ Changes of Assumptions	7,327,191	110,528
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	45,179
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 201,267
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 5,349
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	349,525
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	367
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 355,241
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 30,444
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	19,708
Total Employer Pension Expense	\$ 2,018,197	\$ 50,152
Covered Payroll:	\$ 33,981,821	\$ 511,801
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 459,449
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 856,176
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 123,710
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (11,185)
◆ 2023	\$ (5,181,929)	\$ (62,247)
◆ 2024	\$ (2,637,125)	\$ (29,721)
◆ 2025	\$ (3,458,188)	\$ (50,821)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Bernardston
◆ Current Proportionate Share		1.618352%
◆ Prior Proportionate Share		1.608116%
Beginning Net Pension Liability	\$ 40,571,564	\$ 652,438
Ending Net Pension Liability	\$ 30,458,084	\$ 492,919
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 48,879
◆ Changes of Assumptions	7,327,191	118,580
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	25,559
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 193,018
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 5,738
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	374,987
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 380,725
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 32,662
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	16,414
Total Employer Pension Expense	\$ 2,018,197	\$ 49,076
Covered Payroll:	\$ 33,981,821	\$ 550,271
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 492,919
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 918,547
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 132,722
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (17,811)
◆ 2023	\$ (5,181,929)	\$ (74,847)
◆ 2024	\$ (2,637,125)	\$ (39,359)
◆ 2025	\$ (3,458,188)	\$ (55,690)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Bernardston Fire & Water District
◆ Current Proportionate Share		0.059935%
◆ Prior Proportionate Share		0.059932%
Beginning Net Pension Liability	\$ 40,571,564	\$ 24,315
Ending Net Pension Liability	\$ 30,458,084	\$ 18,255
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 1,810
◆ Changes of Assumptions	7,327,191	4,392
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	3,237
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 9,439
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 213
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	13,888
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 14,101
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 1,210
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	1,289
Total Employer Pension Expense	\$ 2,018,197	\$ 2,499
Covered Payroll:	\$ 33,981,821	\$ 20,564
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 18,255
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 34,018
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 4,915
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ 131
◆ 2023	\$ (5,181,929)	\$ (1,883)
◆ 2024	\$ (2,637,125)	\$ (837)
◆ 2025	\$ (3,458,188)	\$ (2,073)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Buckland
◆ Current Proportionate Share		1.878093%
◆ Prior Proportionate Share		1.937728%
Beginning Net Pension Liability	\$ 40,571,564	\$ 786,166
Ending Net Pension Liability	\$ 30,458,084	\$ 572,031
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 56,724
◆ Changes of Assumptions	7,327,191	137,611
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	8,542
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 202,877
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 6,659
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	435,172
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	49,524
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 491,355
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 37,904
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(6,464)
Total Employer Pension Expense	\$ 2,018,197	\$ 31,440
Covered Payroll:	\$ 33,981,821	\$ 637,234
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 572,031
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 1,065,971
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 154,023
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (47,027)
◆ 2023	\$ (5,181,929)	\$ (111,787)
◆ 2024	\$ (2,637,125)	\$ (63,120)
◆ 2025	\$ (3,458,188)	\$ (66,544)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Charlemont
◆ Current Proportionate Share		1.088904%
◆ Prior Proportionate Share		1.095160%
Beginning Net Pension Liability	\$ 40,571,564	\$ 444,323
Ending Net Pension Liability	\$ 30,458,084	\$ 331,659
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 32,888
◆ Changes of Assumptions	7,327,191	79,786
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	6,343
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 119,017
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 3,861
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	252,309
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	2,355
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 258,525
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 21,976
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,638
Total Employer Pension Expense	\$ 2,018,197	\$ 27,614
Covered Payroll:	\$ 33,981,821	\$ 368,905
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 331,659
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 618,042
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 89,302
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (17,393)
◆ 2023	\$ (5,181,929)	\$ (55,062)
◆ 2024	\$ (2,637,125)	\$ (29,229)
◆ 2025	\$ (3,458,188)	\$ (37,824)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Colrain
◆ Current Proportionate Share		1.378599%
◆ Prior Proportionate Share		1.318446%
Beginning Net Pension Liability	\$ 40,571,564	\$ 534,914
Ending Net Pension Liability	\$ 30,458,084	\$ 419,895
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 41,638
◆ Changes of Assumptions	7,327,191	101,013
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	41,570
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 184,221
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 4,888
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	319,434
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	15,201
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 339,523
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 27,823
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	9,342
Total Employer Pension Expense	\$ 2,018,197	\$ 37,165
Covered Payroll:	\$ 33,981,821	\$ 468,602
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 419,895
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 782,468
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 113,060
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (20,018)
◆ 2023	\$ (5,181,929)	\$ (64,030)
◆ 2024	\$ (2,637,125)	\$ (25,194)
◆ 2025	\$ (3,458,188)	\$ (46,060)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Conway
◆ Current Proportionate Share		2.867088%
◆ Prior Proportionate Share		2.866630%
Beginning Net Pension Liability	\$ 40,571,564	\$ 1,163,037
Ending Net Pension Liability	\$ 30,458,084	\$ 873,260
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 86,594
◆ Changes of Assumptions	7,327,191	210,077
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	40,608
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 337,279
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 10,166
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	664,331
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 674,497
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 57,863
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	21,184
Total Employer Pension Expense	\$ 2,018,197	\$ 79,047
Covered Payroll:	\$ 33,981,821	\$ 974,227
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 873,260
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 1,627,306
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 235,131
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (35,694)
◆ 2023	\$ (5,181,929)	\$ (133,083)
◆ 2024	\$ (2,637,125)	\$ (69,305)
◆ 2025	\$ (3,458,188)	\$ (99,136)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Deerfield
◆ Current Proportionate Share		9.630206%
◆ Prior Proportionate Share		9.518831%
Beginning Net Pension Liability	\$ 40,571,564	\$ 3,861,939
Ending Net Pension Liability	\$ 30,458,084	\$ 2,933,176
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 290,860
◆ Changes of Assumptions	7,327,191	705,624
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	197,727
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 1,194,211
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 34,146
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	2,231,409
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 2,265,555
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 194,357
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	112,041
Total Employer Pension Expense	\$ 2,018,197	\$ 306,398
Covered Payroll:	\$ 33,981,821	\$ 3,276,017
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 2,933,176
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 5,465,928
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 789,778
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (89,568)
◆ 2023	\$ (5,181,929)	\$ (428,467)
◆ 2024	\$ (2,637,125)	\$ (223,264)
◆ 2025	\$ (3,458,188)	\$ (330,045)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Erving
◆ Current Proportionate Share		4.905012%
◆ Prior Proportionate Share		4.794369%
Beginning Net Pension Liability	\$ 40,571,564	\$ 1,945,150
Ending Net Pension Liability	\$ 30,458,084	\$ 1,493,973
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 148,145
◆ Changes of Assumptions	7,327,191	359,400
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	133,288
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 640,833
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 17,392
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	1,136,537
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 1,153,929
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 98,993
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	37,906
Total Employer Pension Expense	\$ 2,018,197	\$ 136,899
Covered Payroll:	\$ 33,981,821	\$ 1,668,523
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 1,493,973
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 2,783,995
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 402,262
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (35,363)
◆ 2023	\$ (5,181,929)	\$ (207,434)
◆ 2024	\$ (2,637,125)	\$ (103,640)
◆ 2025	\$ (3,458,188)	\$ (166,659)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Franklin County Regional Housing Authority
◆ Current Proportionate Share		3.734677%
◆ Prior Proportionate Share		3.846012%
Beginning Net Pension Liability	\$ 40,571,564	\$ 1,560,387
Ending Net Pension Liability	\$ 30,458,084	\$ 1,137,511
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 112,798
◆ Changes of Assumptions	7,327,191	273,647
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	2,173
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 388,618
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 13,242
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	865,360
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	72,471
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 951,073
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 75,373
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(52,892)
Total Employer Pension Expense	\$ 2,018,197	\$ 22,481
Covered Payroll:	\$ 33,981,821	\$ 1,245,586
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 1,137,511
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 2,119,734
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 306,283
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (100,728)
◆ 2023	\$ (5,181,929)	\$ (213,211)
◆ 2024	\$ (2,637,125)	\$ (116,380)
◆ 2025	\$ (3,458,188)	\$ (132,136)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Franklin County Solid Waste Management District
◆ Current Proportionate Share		0.410997%
◆ Prior Proportionate Share		0.427338%
Beginning Net Pension Liability	\$ 40,571,564	\$ 173,378
Ending Net Pension Liability	\$ 30,458,084	\$ 125,182
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 12,413
◆ Changes of Assumptions	7,327,191	30,115
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	1,065
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 43,593
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 1,457
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	95,232
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	6,152
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 102,841
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 8,295
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(833)
Total Employer Pension Expense	\$ 2,018,197	\$ 7,462
Covered Payroll:	\$ 33,981,821	\$ 136,887
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 125,182
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 233,274
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 33,706
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (9,121)
◆ 2023	\$ (5,181,929)	\$ (22,916)
◆ 2024	\$ (2,637,125)	\$ (12,558)
◆ 2025	\$ (3,458,188)	\$ (14,653)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Franklin Regional Transit Authority
◆ Current Proportionate Share		1.190622%
◆ Prior Proportionate Share		1.200604%
Beginning Net Pension Liability	\$ 40,571,564	\$ 487,104
Ending Net Pension Liability	\$ 30,458,084	\$ 362,641
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 35,960
◆ Changes of Assumptions	7,327,191	87,239
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	15,670
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 138,869
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 4,222
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	275,878
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	4,626
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 284,726
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 24,029
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	18,661
Total Employer Pension Expense	\$ 2,018,197	\$ 42,690
Covered Payroll:	\$ 33,981,821	\$ 398,267
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 362,641
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 675,775
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 97,643
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (13,117)
◆ 2023	\$ (5,181,929)	\$ (58,524)
◆ 2024	\$ (2,637,125)	\$ (32,775)
◆ 2025	\$ (3,458,188)	\$ (41,441)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Frontier Regional School District
◆ Current Proportionate Share		6.093799%
◆ Prior Proportionate Share		6.152783%
Beginning Net Pension Liability	\$ 40,571,564	\$ 2,496,280
Ending Net Pension Liability	\$ 30,458,084	\$ 1,856,054
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 184,050
◆ Changes of Assumptions	7,327,191	446,504
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 630,554
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 21,607
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	1,411,990
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	34,393
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 1,467,990
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 122,985
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(4,379)
Total Employer Pension Expense	\$ 2,018,197	\$ 118,606
Covered Payroll:	\$ 33,981,821	\$ 2,071,449
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 1,856,054
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 3,458,729
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 499,756
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (128,170)
◆ 2023	\$ (5,181,929)	\$ (327,005)
◆ 2024	\$ (2,637,125)	\$ (169,944)
◆ 2025	\$ (3,458,188)	\$ (212,317)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Gill
◆ Current Proportionate Share		1.328644%
◆ Prior Proportionate Share		1.358414%
Beginning Net Pension Liability	\$ 40,571,564	\$ 551,130
Ending Net Pension Liability	\$ 30,458,084	\$ 404,680
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 40,129
◆ Changes of Assumptions	7,327,191	97,352
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	995
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 138,476
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 4,711
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	307,859
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	45,649
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 358,219
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 26,815
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(18,581)
Total Employer Pension Expense	\$ 2,018,197	\$ 8,234
Covered Payroll:	\$ 33,981,821	\$ 451,472
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 404,680
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 754,114
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 108,963
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (47,145)
◆ 2023	\$ (5,181,929)	\$ (85,781)
◆ 2024	\$ (2,637,125)	\$ (40,072)
◆ 2025	\$ (3,458,188)	\$ (46,745)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Hawlemont Regional School District
◆ Current Proportionate Share		0.988995%
◆ Prior Proportionate Share		0.958882%
Beginning Net Pension Liability	\$ 40,571,564	\$ 389,033
Ending Net Pension Liability	\$ 30,458,084	\$ 301,229
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 29,870
◆ Changes of Assumptions	7,327,191	72,466
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	36,481
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 138,817
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 3,507
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	229,159
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 232,666
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 19,960
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	14,054
Total Employer Pension Expense	\$ 2,018,197	\$ 34,014
Covered Payroll:	\$ 33,981,821	\$ 337,535
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 301,229
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 561,335
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 81,108
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (3,754)
◆ 2023	\$ (5,181,929)	\$ (38,127)
◆ 2024	\$ (2,637,125)	\$ (18,574)
◆ 2025	\$ (3,458,188)	\$ (33,394)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Hawley
◆ Current Proportionate Share		0.459533%
◆ Prior Proportionate Share		0.449461%
Beginning Net Pension Liability	\$ 40,571,564	\$ 182,353
Ending Net Pension Liability	\$ 30,458,084	\$ 139,965
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 13,879
◆ Changes of Assumptions	7,327,191	33,671
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	13,115
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 60,665
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 1,629
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	106,478
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 108,107
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 9,274
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	7,761
Total Employer Pension Expense	\$ 2,018,197	\$ 17,035
Covered Payroll:	\$ 33,981,821	\$ 156,678
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 139,965
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 260,823
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 37,687
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (3,052)
◆ 2023	\$ (5,181,929)	\$ (19,451)
◆ 2024	\$ (2,637,125)	\$ (9,318)
◆ 2025	\$ (3,458,188)	\$ (15,621)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Heath
◆ Current Proportionate Share		0.969021%
◆ Prior Proportionate Share		0.949499%
Beginning Net Pension Liability	\$ 40,571,564	\$ 385,226
Ending Net Pension Liability	\$ 30,458,084	\$ 295,145
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 29,267
◆ Changes of Assumptions	7,327,191	71,002
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	25,614
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 125,883
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 3,436
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	224,531
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 227,967
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 19,557
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	12,863
Total Employer Pension Expense	\$ 2,018,197	\$ 32,420
Covered Payroll:	\$ 33,981,821	\$ 330,562
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 295,145
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 549,998
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 79,470
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (7,296)
◆ 2023	\$ (5,181,929)	\$ (41,124)
◆ 2024	\$ (2,637,125)	\$ (20,676)
◆ 2025	\$ (3,458,188)	\$ (32,988)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Leverett
◆ Current Proportionate Share		2.597367%
◆ Prior Proportionate Share		2.746780%
Beginning Net Pension Liability	\$ 40,571,564	\$ 1,114,412
Ending Net Pension Liability	\$ 30,458,084	\$ 791,108
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 78,448
◆ Changes of Assumptions	7,327,191	190,314
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 268,762
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 9,210
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	601,834
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	120,460
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 731,504
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 52,420
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(59,357)
Total Employer Pension Expense	\$ 2,018,197	\$ (6,937)
Covered Payroll:	\$ 33,981,821	\$ 881,919
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 791,108
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 1,474,218
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 213,011
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (103,222)
◆ 2023	\$ (5,181,929)	\$ (175,230)
◆ 2024	\$ (2,637,125)	\$ (90,462)
◆ 2025	\$ (3,458,188)	\$ (93,828)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Leyden
◆ Current Proportionate Share		0.449539%
◆ Prior Proportionate Share		0.449461%
Beginning Net Pension Liability	\$ 40,571,564	\$ 182,353
Ending Net Pension Liability	\$ 30,458,084	\$ 136,921
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 13,577
◆ Changes of Assumptions	7,327,191	32,939
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	4,369
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 50,885
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 1,594
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	104,163
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 105,757
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 9,073
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,962
Total Employer Pension Expense	\$ 2,018,197	\$ 13,035
Covered Payroll:	\$ 33,981,821	\$ 151,509
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 136,921
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 255,150
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 36,867
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (6,074)
◆ 2023	\$ (5,181,929)	\$ (21,600)
◆ 2024	\$ (2,637,125)	\$ (11,653)
◆ 2025	\$ (3,458,188)	\$ (15,545)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Mahar Regional School District
◆ Current Proportionate Share		4.825090%
◆ Prior Proportionate Share		5.094028%
Beginning Net Pension Liability	\$ 40,571,564	\$ 2,066,727
Ending Net Pension Liability	\$ 30,458,084	\$ 1,469,630
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 145,732
◆ Changes of Assumptions	7,327,191	353,544
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	24,165
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 523,441
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 17,108
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	1,118,019
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	106,918
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 1,242,045
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 97,380
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(4,473)
Total Employer Pension Expense	\$ 2,018,197	\$ 92,907
Covered Payroll:	\$ 33,981,821	\$ 1,641,213
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 1,469,630
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 2,738,633
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 395,708
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (108,607)
◆ 2023	\$ (5,181,929)	\$ (275,948)
◆ 2024	\$ (2,637,125)	\$ (159,982)
◆ 2025	\$ (3,458,188)	\$ (174,067)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Mohawk Regional School District
◆ Current Proportionate Share		9.460381%
◆ Prior Proportionate Share		9.349024%
Beginning Net Pension Liability	\$ 40,571,564	\$ 3,793,045
Ending Net Pension Liability	\$ 30,458,084	\$ 2,881,451
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 285,731
◆ Changes of Assumptions	7,327,191	693,180
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	93,869
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 1,072,780
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 33,544
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	2,192,059
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 2,225,603
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 190,929
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	37,371
Total Employer Pension Expense	\$ 2,018,197	\$ 228,300
Covered Payroll:	\$ 33,981,821	\$ 3,219,470
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 2,881,451
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 5,369,539
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 775,851
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (140,147)
◆ 2023	\$ (5,181,929)	\$ (458,176)
◆ 2024	\$ (2,637,125)	\$ (230,327)
◆ 2025	\$ (3,458,188)	\$ (324,173)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Monroe
◆ Current Proportionate Share		0.369630%
◆ Prior Proportionate Share		0.359577%
Beginning Net Pension Liability	\$ 40,571,564	\$ 145,886
Ending Net Pension Liability	\$ 30,458,084	\$ 112,582
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 11,164
◆ Changes of Assumptions	7,327,191	27,084
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	17,916
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 56,164
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 1,311
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	85,647
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	722
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 87,680
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 7,460
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,980
Total Employer Pension Expense	\$ 2,018,197	\$ 13,440
Covered Payroll:	\$ 33,981,821	\$ 124,626
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 112,582
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 209,795
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 30,314
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (161)
◆ 2023	\$ (5,181,929)	\$ (12,571)
◆ 2024	\$ (2,637,125)	\$ (6,272)
◆ 2025	\$ (3,458,188)	\$ (12,512)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of New Salem
◆ Current Proportionate Share		0.779209%
◆ Prior Proportionate Share		0.799064%
Beginning Net Pension Liability	\$ 40,571,564	\$ 324,193
Ending Net Pension Liability	\$ 30,458,084	\$ 237,332
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 23,534
◆ Changes of Assumptions	7,327,191	57,094
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	7,784
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 88,412
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 2,763
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	180,550
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	7,475
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 190,788
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 15,726
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	5,820
Total Employer Pension Expense	\$ 2,018,197	\$ 21,546
Covered Payroll:	\$ 33,981,821	\$ 266,052
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 237,332
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 442,265
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 63,903
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (12,164)
◆ 2023	\$ (5,181,929)	\$ (40,214)
◆ 2024	\$ (2,637,125)	\$ (22,519)
◆ 2025	\$ (3,458,188)	\$ (27,479)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	New Salem/Wendell Union School District
◆ Current Proportionate Share		2.247710%
◆ Prior Proportionate Share		2.127512%
Beginning Net Pension Liability	\$ 40,571,564	\$ 863,165
Ending Net Pension Liability	\$ 30,458,084	\$ 684,610
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 67,887
◆ Changes of Assumptions	7,327,191	164,694
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	76,436
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 309,017
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 7,970
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	520,816
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	5,666
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 534,452
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 45,363
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	25,506
Total Employer Pension Expense	\$ 2,018,197	\$ 70,869
Covered Payroll:	\$ 33,981,821	\$ 763,862
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 684,610
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 1,275,759
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 184,336
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (19,663)
◆ 2023	\$ (5,181,929)	\$ (93,364)
◆ 2024	\$ (2,637,125)	\$ (37,898)
◆ 2025	\$ (3,458,188)	\$ (74,510)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Northfield
◆ Current Proportionate Share		2.627334%
◆ Prior Proportionate Share		2.596950%
Beginning Net Pension Liability	\$ 40,571,564	\$ 1,053,623
Ending Net Pension Liability	\$ 30,458,084	\$ 800,236
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 79,353
◆ Changes of Assumptions	7,327,191	192,510
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	12,698
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 284,561
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 9,316
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	608,778
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	50,444
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 668,538
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 53,025
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(19,967)
Total Employer Pension Expense	\$ 2,018,197	\$ 33,058
Covered Payroll:	\$ 33,981,821	\$ 893,884
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 800,236
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 1,491,227
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 215,469
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (74,082)
◆ 2023	\$ (5,181,929)	\$ (152,360)
◆ 2024	\$ (2,637,125)	\$ (67,493)
◆ 2025	\$ (3,458,188)	\$ (90,042)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Orange
◆ Current Proportionate Share		13.126612%
◆ Prior Proportionate Share		12.994672%
Beginning Net Pension Liability	\$ 40,571,564	\$ 5,272,143
Ending Net Pension Liability	\$ 30,458,084	\$ 3,998,113
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 396,463
◆ Changes of Assumptions	7,327,191	961,808
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	49,673
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 1,407,944
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 46,539
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	3,041,561
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	285,023
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 3,373,123
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 264,918
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(186,711)
Total Employer Pension Expense	\$ 2,018,197	\$ 78,207
Covered Payroll:	\$ 33,981,821	\$ 4,476,682
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 3,998,115
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 7,450,425
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 1,076,520
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (383,617)
◆ 2023	\$ (5,181,929)	\$ (766,121)
◆ 2024	\$ (2,637,125)	\$ (365,029)
◆ 2025	\$ (3,458,188)	\$ (450,412)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Orange Housing Authority
◆ Current Proportionate Share		0.109877%
◆ Prior Proportionate Share		0.109875%
Beginning Net Pension Liability	\$ 40,571,564	\$ 44,578
Ending Net Pension Liability	\$ 30,458,084	\$ 33,466
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 3,319
◆ Changes of Assumptions	7,327,191	8,051
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	1
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 11,371
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 390
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	25,459
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	7,270
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 33,119
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 2,218
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(4,196)
Total Employer Pension Expense	\$ 2,018,197	\$ (1,978)
Covered Payroll:	\$ 33,981,821	\$ 35,857
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 33,466
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 62,364
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 9,011
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (5,380)
◆ 2023	\$ (5,181,929)	\$ (8,286)
◆ 2024	\$ (2,637,125)	\$ (4,284)
◆ 2025	\$ (3,458,188)	\$ (3,798)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Pioneer Valley Regional School District
◆ Current Proportionate Share		6.493397%
◆ Prior Proportionate Share		6.712119%
Beginning Net Pension Liability	\$ 40,571,564	\$ 2,723,212
Ending Net Pension Liability	\$ 30,458,084	\$ 1,977,764
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 196,119
◆ Changes of Assumptions	7,327,191	475,784
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	897
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 672,800
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 23,024
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	1,504,581
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	199,639
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 1,727,244
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 131,050
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(76,644)
Total Employer Pension Expense	\$ 2,018,197	\$ 54,406
Covered Payroll:	\$ 33,981,821	\$ 2,207,805
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 1,977,764
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 3,685,533
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 532,527
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (207,770)
◆ 2023	\$ (5,181,929)	\$ (407,361)
◆ 2024	\$ (2,637,125)	\$ (208,894)
◆ 2025	\$ (3,458,188)	\$ (230,419)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Rowe
◆ Current Proportionate Share		1.967996%
◆ Prior Proportionate Share		1.937728%
Beginning Net Pension Liability	\$ 40,571,564	\$ 786,166
Ending Net Pension Liability	\$ 30,458,084	\$ 599,414
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 59,439
◆ Changes of Assumptions	7,327,191	144,199
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	11,395
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 215,033
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 6,978
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	456,003
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	51,676
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 514,657
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 39,718
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(19,145)
Total Employer Pension Expense	\$ 2,018,197	\$ 20,573
Covered Payroll:	\$ 33,981,821	\$ 668,991
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 599,414
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 1,116,998
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 161,396
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (54,893)
◆ 2023	\$ (5,181,929)	\$ (117,354)
◆ 2024	\$ (2,637,125)	\$ (60,133)
◆ 2025	\$ (3,458,188)	\$ (67,244)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Shelburne
◆ Current Proportionate Share		1.888087%
◆ Prior Proportionate Share		1.907762%
Beginning Net Pension Liability	\$ 40,571,564	\$ 774,009
Ending Net Pension Liability	\$ 30,458,084	\$ 575,075
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 57,026
◆ Changes of Assumptions	7,327,191	138,344
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	8,223
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 203,593
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 6,695
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	437,487
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	7,741
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 451,923
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 38,105
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	2,033
Total Employer Pension Expense	\$ 2,018,197	\$ 40,138
Covered Payroll:	\$ 33,981,821	\$ 640,579
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 575,075
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 1,071,643
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 154,843
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (33,629)
◆ 2023	\$ (5,181,929)	\$ (96,899)
◆ 2024	\$ (2,637,125)	\$ (51,979)
◆ 2025	\$ (3,458,188)	\$ (65,823)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Shelburne Falls Fire District
◆ Current Proportionate Share		0.629371%
◆ Prior Proportionate Share		0.629271%
Beginning Net Pension Liability	\$ 40,571,564	\$ 255,305
Ending Net Pension Liability	\$ 30,458,084	\$ 191,694
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 19,009
◆ Changes of Assumptions	7,327,191	46,115
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	982
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 66,106
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 2,232
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	145,831
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	5,157
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 153,220
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 12,702
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(1,446)
Total Employer Pension Expense	\$ 2,018,197	\$ 11,256
Covered Payroll:	\$ 33,981,821	\$ 213,827
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 191,694
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 357,219
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 51,615
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (13,585)
◆ 2023	\$ (5,181,929)	\$ (34,019)
◆ 2024	\$ (2,637,125)	\$ (17,748)
◆ 2025	\$ (3,458,188)	\$ (21,762)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Shutesbury
◆ Current Proportionate Share		2.956990%
◆ Prior Proportionate Share		2.976505%
Beginning Net Pension Liability	\$ 40,571,564	\$ 1,207,615
Ending Net Pension Liability	\$ 30,458,084	\$ 900,643
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 89,310
◆ Changes of Assumptions	7,327,191	216,664
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	24,908
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 330,882
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 10,485
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	685,162
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	10,886
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 706,533
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 59,678
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	15,730
Total Employer Pension Expense	\$ 2,018,197	\$ 75,408
Covered Payroll:	\$ 33,981,821	\$ 1,004,472
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 900,643
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 1,678,334
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 242,504
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (43,736)
◆ 2023	\$ (5,181,929)	\$ (148,010)
◆ 2024	\$ (2,637,125)	\$ (81,123)
◆ 2025	\$ (3,458,188)	\$ (102,782)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	South Deerfield Fire District
◆ Current Proportionate Share		0.279715%
◆ Prior Proportionate Share		0.239714%
Beginning Net Pension Liability	\$ 40,571,564	\$ 97,256
Ending Net Pension Liability	\$ 30,458,084	\$ 85,196
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 8,448
◆ Changes of Assumptions	7,327,191	20,495
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	29,676
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 58,619
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 992
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	64,812
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	448
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 66,252
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 5,645
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	10,301
Total Employer Pension Expense	\$ 2,018,197	\$ 15,946
Covered Payroll:	\$ 33,981,821	\$ 95,851
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 85,196
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 158,761
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 22,940
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ 4,987
◆ 2023	\$ (5,181,929)	\$ (4,276)
◆ 2024	\$ (2,637,125)	\$ 255
◆ 2025	\$ (3,458,188)	\$ (8,599)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	South Deerfield Water Supply District
◆ Current Proportionate Share		0.569423%
◆ Prior Proportionate Share		0.539373%
Beginning Net Pension Liability	\$ 40,571,564	\$ 218,832
Ending Net Pension Liability	\$ 30,458,084	\$ 173,435
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 17,198
◆ Changes of Assumptions	7,327,191	41,723
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	31,077
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 89,998
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 2,019
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	131,941
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	429
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 134,389
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 11,492
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	10,499
Total Employer Pension Expense	\$ 2,018,197	\$ 21,991
Covered Payroll:	\$ 33,981,821	\$ 194,774
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 173,435
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 323,194
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 46,699
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ 1,336
◆ 2023	\$ (5,181,929)	\$ (18,429)
◆ 2024	\$ (2,637,125)	\$ (8,413)
◆ 2025	\$ (3,458,188)	\$ (18,885)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Sunderland
◆ Current Proportionate Share		4.265661%
◆ Prior Proportionate Share		4.115169%
Beginning Net Pension Liability	\$ 40,571,564	\$ 1,669,588
Ending Net Pension Liability	\$ 30,458,084	\$ 1,299,239
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 128,835
◆ Changes of Assumptions	7,327,191	312,553
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	134,267
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 575,655
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 15,125
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	988,394
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	-
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 1,003,519
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 86,089
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	59,282
Total Employer Pension Expense	\$ 2,018,197	\$ 145,371
Covered Payroll:	\$ 33,981,821	\$ 1,450,655
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 1,299,239
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 2,421,111
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 349,829
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (25,347)
◆ 2023	\$ (5,181,929)	\$ (174,458)
◆ 2024	\$ (2,637,125)	\$ (84,578)
◆ 2025	\$ (3,458,188)	\$ (143,481)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Warwick
◆ Current Proportionate Share		0.799183%
◆ Prior Proportionate Share		0.809052%
Beginning Net Pension Liability	\$ 40,571,564	\$ 328,245
Ending Net Pension Liability	\$ 30,458,084	\$ 243,416
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 24,138
◆ Changes of Assumptions	7,327,191	58,558
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	3,884
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 86,580
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 2,834
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	185,178
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	8,135
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 196,147
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 16,129
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	571
Total Employer Pension Expense	\$ 2,018,197	\$ 16,700
Covered Payroll:	\$ 33,981,821	\$ 271,883
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 243,416
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 453,601
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 65,541
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (15,452)
◆ 2023	\$ (5,181,929)	\$ (42,904)
◆ 2024	\$ (2,637,125)	\$ (23,309)
◆ 2025	\$ (3,458,188)	\$ (27,902)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Wendell
◆ Current Proportionate Share		0.749241%
◆ Prior Proportionate Share		0.769098%
Beginning Net Pension Liability	\$ 40,571,564	\$ 312,035
Ending Net Pension Liability	\$ 30,458,084	\$ 228,204
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 22,629
◆ Changes of Assumptions	7,327,191	54,898
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	1,961
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 79,488
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 2,657
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	173,606
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	9,873
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 186,136
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 15,121
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	127
Total Employer Pension Expense	\$ 2,018,197	\$ 15,248
Covered Payroll:	\$ 33,981,821	\$ 255,038
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 228,204
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 425,256
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 61,446
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (16,889)
◆ 2023	\$ (5,181,929)	\$ (41,575)
◆ 2024	\$ (2,637,125)	\$ (21,741)
◆ 2025	\$ (3,458,188)	\$ (26,443)
◆ 2026	\$ -	\$ -
◆ Thereafter	\$ -	\$ -

APPENDIX C - SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

Pension Amounts as of December 31, 2021	Franklin Regional Retirement System	Town of Whately
◆ Current Proportionate Share		2.697250%
◆ Prior Proportionate Share		2.736778%
Beginning Net Pension Liability	\$ 40,571,564	\$ 1,110,353
Ending Net Pension Liability	\$ 30,458,084	\$ 821,531
Total Deferred Outflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 3,020,288	\$ 81,465
◆ Changes of Assumptions	7,327,191	197,633
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	7,888
Total Deferred Outflows of Resources	\$ 11,486,714	\$ 286,986
Total Deferred Inflows of Resources:		
◆ Differences Between Expected and Actual Experience	\$ 354,573	\$ 9,564
◆ Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	23,170,938	624,978
◆ Changes of Assumptions	-	-
◆ Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	1,139,235	30,536
Total Deferred Inflows of Resources	\$ 24,664,746	\$ 665,078
Employer Pension Expense:		
◆ Proportionate Share of Plan Pension Expense	\$ 2,018,197	\$ 54,436
◆ Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	1,044
Total Employer Pension Expense	\$ 2,018,197	\$ 55,480
Covered Payroll:	\$ 33,981,821	\$ 918,292
Sensitivity of the Net Pension Liability to Changes in the Discount Rate:		
◆ Current discount rate: 7.25%	\$ 30,458,084	\$ 821,531
◆ 1% decrease in the discount rate: 6.25%	\$ 56,758,168	\$ 1,530,910
◆ 1% increase in the discount rate: 8.25%	\$ 8,201,050	\$ 221,203
Deferred Outflows of Resources and Deferred Inflows of Resources Recognized in Future Pension Expense:		
◆ 2022	\$ (1,900,790)	\$ (56,384)
◆ 2023	\$ (5,181,929)	\$ (147,795)
◆ 2024	\$ (2,637,125)	\$ (79,577)
◆ 2025	\$ (3,458,188)	\$ (94,336)
◆ 2026	\$ -	\$ -
◆ 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%.