Hampshire County Retirement System

Independent Auditors' Report and Management's Schedule of Employer Allocations and Schedule of Pension Amounts

By Employer

December 31, 2016

Ron L. Beaulieu & Company

CERTIFIED PUBLIC ACCOUNTANTS

HAMPSHIRE COUNTY RETIREMENT SYSTEM

DECEMBER 31, 2016

CONTENTS

	PAGE
INDEPENDENT AUDITORS' REPORT	1 - 2
MANAGEMENT'S SCHEDULES	
SCHEDULE OF EMPLOYER ALLOCATIONS	3
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER	4
NOTES TO SCHEDULES	5 - 9

Ron L. Beaulieu & Company

CERTIFIED PUBLIC ACCOUNTANTS

www.rlbco.com accting@rlbco.com 41 Bates Street Portland, Maine 04103 Tel: (207) 775-1717

Fax: (207) 775-7103

INDEPENDENT AUDITORS' REPORT

To the Administrator of Hampshire County Retirement System Northampton, Massachusetts

Report on the Schedules

We have audited the accompanying schedule of employer allocations of Hampshire County Retirement System as of and for the year ended December 31, 2016, and the related notes. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of Hampshire County Retirement System as of and for the year ended December 31, 2016, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatements, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of allocations and the specified column totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes

evaluating the appropriateness of accounting polices used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating entities for Hampshire County Retirement System, as of and for the years ended December 31, 2016, in accordance with accounting principles generally accepted in the United States of America.

Other Matters

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of Hampshire County Retirement System as of and for the year ended December 31, 2016, and our report thereon, dated January 08, 2018, expressed an unmodified opinion on those financial statements.

Restriction of Use

Our report is intended solely for the information and use of Hampshire County Retirement System management, Retirement Board, Hampshire County Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Ron 1. Beaulier & Co.

Portland, Maine January 08, 2018

HAMPSHIRE COUNTY RETIREMENT SYSTEM SCHEDULE OF EMPLOYER ALLOCATIONS AS OF AND YEARS ENDED DECEMBER 31,

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	2010			
	Actual	Employer		
	Employer	Allocation		
Employer	Contributions	Percentage		
Hampshire Council of Governments	\$ 221,749	1.12600%		
Town of Amherst	5,289,732	26.86041%		
Amherst Housing Authority	151,018	0.76684%		
Amherst-Pelham Regional School District	1,157,851	5.87938%		
Town of Belchertown	2,537,763	12.88634%		
Belchertown Housing Authority	25,322	0.12858%		
Belchertown Water District	45,879	0.23297%		
Town of Chesterfield	70,731	0.35916%		
Chesterfield/Goshen Regional School District	64,995	0.33003%		
Town of Cummington	40,144	0.20384%		
Foothills Health District	9,558	0.04853%		
Gateway Regional School District	529,522	2.68882%		
Town of Goshen	59,260	0.30091%		
Town of Granby	876,157	4.44898%		
Granby Housing Authority	24,851	0.12619%		
Town of Hadley	929,264	4.71865%		
Hadley Housing Authority	7,646	0.03883%		
Hampshire County Regional Housing Authority	5,735	0.02912%		
Hampshire County Regional School District	447,646	2.27307%		
Town of Hatfield	468,350	2.37820%		
Hatfield Housing Authority	11,470	0.05824%		
Town of Huntington	109,080	0.55389%		
Town of Middlefield	40,144	0.20384%		
Town of Pelham	185,428	0.94157%		
Town of Plainfield	61,172	0.31062%		
Quabbin Health District	50,003	0.25391%		
South Hadley Fire District #1	512,317	2.60146%		
South Hadley Fire District #2	227,485	1.15513%		
Town of South Hadley	2,674,901	13.58270%		
South Hadley Housing Authority	47,790	0.24267%		
So Hadley-Granby-Easthampton Veterans District	13,381	0.06795%		
Town of Southampton	614,603	3.12085%		
Town of Ware	1,660,342	8.43094%		
Ware Housing Authority	47,509	0.24124%		
Town of Westhampton	162,489	0.82509%		
Town of Williamsburg	219,900	1.11662%		
Town of Worthington	92,249	0.46843%		
Total	\$ 19,693,436	100.00000%		

HAMPSHIRE COUNTY RETIREMENT SYSTEM SCHEDULE OF PENSION AMOUNTS BY EMPLOYER AS OF AND YEARS ENDED DECEMBER 31,

									ZOTO DOTOTI CA HITIOMS OF INCSOURCES			zoto i diami Esperia	
			Not Difference		Changes in				Changes in				
			Net Difference Between		Proportion and Differences				Proportion and Differences				
			Projected and		Between				Between				
		Differences	Actual		Employer	Total	Differences		Employer	Total	_	Net Amortization	
		Between	Investment		Contributions	Deferred	Between		Contributions	Deferred	Proportionate	of	Total
	December 31, 2016	Expected Page 1	Earnings on	Changes	and Proportionate	Outflows	Expected	Changes	and Proportionate	Inflows	Share of Plan D	Deferred Amounts	Employer
	Net Pension	and Actual	Pension Plan	Jo	Share of	Jo	and Actual	Jo	Share of	Jo	Pension	from Changes in	Pension
Employer	Liability	Experience	Investments	Assumptions	Contributions	Resources	Experience	Assumptions	Contributions	Resources	Expense	Proportion	Expense
Hamps hire Council of Governments	\$ 2,475,085	S	. \$ 179,591	\$ 150,358	· •	\$ 329,949	\$ 39,364	\$	\$ 274,974	\$ 314,338	\$ 310,093	\$ (83,630)	226,463
Town of Amherst	59,042,419	•	4,284,072	3,586,727	•	7,870,799	939,051		745,747	1,684,798	7,397,165	(233,244)	7,163,921
Amherst Housing Authority	1,685,607		122,306	102,398	23,598	248,302	26,809			26,809	211,182	12,008	223,190
Amherst-Pelham Regional School District	12,923,586		937,725	785,086	•	1,722,811	205,546	•	147,483	353,029	1,619,139	(46,899)	1,572,240
Town of Belchertown	28,325,729		2,055,293	1,720,740	119,825	3,895,858	450,512	•	•	450,512	3,548,806	30,711	3,579,517
Belchertown Housing Authority	282,634		. 20,508	17,170	28,088	992'59	4,495	•		4,495	35,410	(321)	35,089
Belchertown Water District	512,096		. 37,157	31,109	84,452	152,718	8,145	•		8,145	64,158	21,466	85,624
Town of Chesterfield	789,477		57,284	47,959		105,243	12,556		72,996	85,552	98,910	(18,573)	80,337
Chesterfield/Goshen Regional School District	725,446		. 52,638	44,070		96,708	11,538		61,462	73,000	90,888	(14,149)	76,739
Town of Cummington	448,065		. 32,511	27,219	•	59,730	7,126	1	11,668	18,794	56,136	(3,038)	53,098
Foothills Health District	106,675	'	7,740	6,480	13,028	27,248	1,697	'		1,697	13,365	3,235	16,600
Gateway Regional School District	5,910,350	'	428,850	359,044	•	787,894	94,002	'	483,924	577,926	740,482	(131,411)	609,071
Town of Goshen	661,436		. 47,993	40,181	3,342	91,516	10,520	•		10,520	82,868	22.2	83,445
Town of Granby	9,779,394		. 709,585	594,082	•	1,303,667	155,538		260,443	415,981	1,225,217	(70,902)	1,154,315
Granby Housing Authority	277,381	•	. 20,127	16,850	43,892	80,869	4,412	•		4,412	34,752	14,501	49,253
Town of Hadley	10,372,161	'	752,596	630,091	33,733	1,416,420	164,966	'	•	164,966	1,299,482	19,451	1,318,933
Hadley Housing Authority	85,353		. 6,193	5,185	•	11,378	1,358	•	46,461	47,819	10,694	(15,448)	(4,754)
Hampshire County Regional Housing Authority	64,009		4,644	3,888	155	8,687	1,018	•		1,018	8,019	21	8,040
Hampshire County Regional School District	4,996,482		. 362,541	303,528	44,574	710,643	79,468	•	•	79,468	625,987	7,428	633,415
Town of Hatfield	5,227,570		379,308	317,566	•	696,874	83,143	•	15,668	98,811	624,939	(14,618)	640,321
Hatfield Housing Authority	128,019		. 9,289	7,777	14,790	31,856	2,036	•	•	2,036	16,039	3,582	19,621
Town of Huntington	1,217,517		88,342	73,962	23,317	185,621	19,364	•	1	19,364	152,537	2,230	154,767
Town of Middlefield	448,065		. 32,511	27,219		59,730	7,126	•	864	7,990	56,136	564	26,700
Town of Pelham	2,069,684		150,175	125,730	443,920	719,825	32,918	•		32,918	259,302	189,372	448,674
Town of Plainfield	682,780		49,542	41,478	94,533	185,553	10,859		' '	10,859	85,543	23,317	108,860
Quabbin Health District	558,125		40,497	33,905	•	700,007	8,877	'	6,511	15,388	69,925	(1,991)	67,934
South Hadley Fire District #1	5,718,323		414,917	347,378	. 25	762,295	90,948		40,035	130,983	716,423	(15,182)	701,241
South Hadiey Fire District #2	2,539,115		7 166 250	154,247	1 206 010	5 267 002	40,384			40,384	316,113	303 973	3/ /,280
Town of South Hadiey	29,000,412	•	7,100,330	1,013,720	016,002,1	200,102,0	1,00,474			100,474	3,740,570	302,073	4,040,4
South Hadiey Housing Authority		'	38,704	32,404	3,016	74,124	8,484	'		8,484	96,830	179	10,357
So Hadiey-Granby-Eastnampton Veterans District		'	10,838	9,074	3/1	20,283	2,370	'	' 00	2,376	18,/13	\$ 60 5	18,767
I own of southampton	6,860,004		497,757	416,734		914,491	109,106		32,392	141,498	859,460	10,632	870,092
lown of Ware	18,532,222		1,344,684	1,125,801	' !	2,4 /0,485	294,749		207,418	502,167	2,321,821	(22,527)	2,266,294
Ware Housing Authority	530,275		. 38,476	32,213	43,570	114,259	8,434	1		8,434	66,436	17,540	83,976
Town of Westhampton	1,813,647		. 131,597	110,176	•	241,773	28,846	•	58,674	87,520	227,224	(10,690)	216,534
Town of Williamsburg	2,454,465		178,094	149,105		327,199	39,038	'	168,295	207,333	307,509	(34,345)	273,164
Town of Worthington	1,029,666		. 74,712	62,550	132,130	269,392	16,377			16,377	129,002	30,507	159,509
Total	\$ 210 812 054	ď	4 15 0 10 301	4 13 353 210	\$ 2635,015	21 027 616	3 406 0 43	.,	\$ 2835.015 ¢	0404040	07 530 30E	•	100 001

See Independent Auditors' Report and management's notes to schedules.

NOTE 1 - DESCRIPTION OF PLAN

The following description of the Hampshire County Retirement System (the Plan), a cost sharing multiemployer plan serving 37 employers, provides only general information. Participants should refer to the Plan agreement for a complete description of the Plan's provisions.

General

The Plan is a defined benefit plan covering all member unit employees deemed eligible by the retirement board, with the exception of the school department employees who serve in a teaching capacity.

Plan Amendments

The Plan did not adopt any significant plan amendments during 2016.

Administration of the Plan

The Plan is administered by a five person Board of Retirement consisting of the Chairperson who shall be appointed by the other four board members, a second member appointed by the Advisory Council, a third and fourth member who shall be elected by the members in or retired from the service of the Plan, and a fifth member, who shall not be a member of the Plan, appointed by the other four board members. The Board of Retirement has the authority to amend or establish policies that are not governed by Massachusetts Law or the Public Employee Retirement Administration Commission.

Contributions

Participation in the plan is required for all full-time employees. There are three classes of membership:

Group 1:

General employees, including clerical, administrative, technical, and all other employees not otherwise classified.

Group 2:

Certain specified hazardous duty positions.

Group 4:

Police officers, firefighters, and other specified hazardous positions.

NOTE 1 - DESCRIPTION OF PLAN (CONTINUED)

Membership of each group as of December 31, 2016:

			Inactive	
			(retired) members	
		Inactive	entitleld to	
		(retired)	benefits	
		members	but not yet	
	Active	receiving	receiving	
Group	members	benefits	benefits	Total
Group 1	1,616	1,025	501	3,142
Group 2 & 4	377	218	142_	737
	1,993	1,243	643	3,879

Member contributions vary depending on the most recent date of membership:

Prior to 1975: 5% of compensation 1975-1983: 7% of compensation 1984-6/30/96: 8% of compensation 7/1/96-present: 9% of compensation

1979 to present: an additional 2% of compensation in excess of \$30,000

Upon termination, a member may withdraw their contributions plus statutory interest.

Employers were required to contribute \$19,693,436, for the years ended December 31, 2016.

Payment of Benefits

Once a member has met one of the conditions below, they are eligible to receive benefits:

Tier 1 (Membership prior to April 2, 2012):

- 1) Completion of 20 years of service, or
- 2) Reach age 55 if hired prior to 1978, or classified as Group 4, or
- 3) Reach age 55 with 10 years of service, if hired after 1978, and if classified in Group 1 and 2. or
- 4) Disabled or death

Tier 2 (Membership on or after April 2, 2012):

- 1) If classified as Group 1, attain age 60 with 10 years of creditable service, or
- 2) If classified as Group 2, attain age 55 with 10 years creditable service, or
- 3) If classified as Group 4, attain age 55, or
- 4) Disabled or death

NOTE 1 - DESCRIPTION OF PLAN (CONTINUED)

The amount of benefit is determined by their benefit rate and cannot exceed 80% of the member's highest three year average compensation. The benefit amount may be adjusted for a cost of living adjustment by annual vote of the Retirement Board. Cost of Living adjustment may be granted in an amount determined by the Retirement Board up to a maximum of 3% on the first \$13,000.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The schedules are prepared using the accrual method of accounting.

Basis of Allocation

The Schedule of Employer Allocations is prepared using the historical measure basis of actual contributions.

NOTE 3 - NET PENSION LIABILITY

The net pension liability is the actuarial total liability less the fiduciary net position. The components of the net pension liability are as follows:

	2015
Total pension liability	\$495,145,477
Plan fiduciary net position	275,333,423
Net pension liability (asset)	\$219,812,054

The following are significant assumptions used to measure the total pension liability and projected cash flows:

- 1) Discount rate is estimated to be 7.50% per year based on prior results
- 2) Inflation is estimated to be 3%
- 3) Asset allocation is estimated to be 25% fixed income; 37.5% equities; 28% alternatives; and 7.5% other.
- 4) Increase in salaries will be 4.25% per year
- 5) Mortality was based upon the RP2000 Table projected with scale BB with base year 2009
- 6) Cost of Living Allowance base is fixed at \$13,000.
- 7) Experience studies are based on data provided from Hampshire County Retirement Board as of December 31, 2015.

NOTE 4 - COMPONENTS OF SCHEDULES OF PENSION AMOUNTS BY EMPLOYER

Net Pension Liability

The Net Pension Liability is the product of the Total Net Pension Liability multiplied by the Employer Allocation Percentage for the years ended December 31, 2016.

Difference between Expected and Actual Experience

The difference between the projected total pension liability and accrued liability is the amount of the difference between expected and actual experience. The amount of the difference between projected and actual experience for the years ended December 31, 2016 is \$4,348,734. The first year of amortization, \$852,693, is recognized as pension expense, and the remaining amount, \$3,496,041, is shown as a deferred inflow of resources. Each employer's proportionate share of this amount is the product of the Difference between Expected and Actual Experience multiplied by the Employer's Allocation Percentage for the year ended December 31, 2016, as shown in the schedules of employer allocations.

Net Difference between Projected and Actual Investment Earnings on Pension Plan Investments

The difference between the actual earnings on plan investments compared to the plan's expected rate of return of 7.5% is amortized over a closed period of 5 years. The amount of the difference between projected and actual earnings for the years ended December 31, 2016 is \$21,743,534. The first year of amortization, \$5,794,143, is recognized as pension expense, and the remaining amount, \$15,949,391, is shown as a deferred outflow of resources. Each employer's proportionate share of this amount is the product of the Total Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments multiplied by the Employer's Allocation Percentage for the year ended December 31, 2016, as shown in the schedules of employer allocations.

Changes of Assumptions

The discount rate assumption was changed from 7.875% down to 7.50%. The amount of the change in the assumption for the years ended December 31, 2016 is \$16,610,093. The first year of amortization, \$3,256,881, is recognized as pension expense, and the remaining amount, \$13,353,212, is shown as a deferred outflow of resources. Each employer's proportionate share of this amount is the product of the Change of Assumptions multiplied by the Employer's Allocation Percentage for the year ended December 31, 2016, as shown in the schedules of employer allocations.

NOTE 4 – COMPONENTS OF SCHEDULES OF PENSION AMOUNTS BY EMPLOYER (CONTINUED)

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

The Changes in Proportion are the December 31, 2016 Net Liability multiplied by the December 31, 2015 Employer Allocation Percentage less the current year Net Pension Liability plus the December 31, 2016 Net Difference between Projected and Actual Investment Earnings on Pension Plan Investments multiplied by the December 31, 2015 Employer Allocation Percentage less the current year Net Difference between Projected and Actual Investment Earnings on Pension Plan Investments. The changes in proportion are amortized over the average expected remaining service life of members, which is 5.1 years in 2016. The first year is recognized as pension expense and the remaining years are shown as either deferred outflows of resources or deferred inflows of resources.

Pension Expense

Each employer's proportionate share of the collective pension expense is equal to the Total Pension Expense multiplied by the Employer's Allocation Percentage for the year ended December 31, 2016, as shown in the schedules of employer allocations.

Subsequent to the measurement date of the pension liability, there were adjustments made to the financial statements of the Plan.

Below is the reconciliation between the Actuarial Certification report and the Schedule of Pension Amounts by Employer:

Actuarial Certification Report	\$ 27,532,935
Year end accruals	6,350
Total Pension Expense	\$ 27,539,285

NOTE 5 – FUTURE RECOGNITION OF DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in the pension expense as follows:

Total	2017	2018	2019	2020	2021	Thereafter
\$25,806,558	8,198,331	8,198,331	6,718,929	2,450,552	240,415	-

NOTE 6 - MANAGEMENT REVIEW

Management has reviewed subsequent events as of January 08, 2018, the date the schedules were available to be issued. At that time, there were no material subsequent events.