# NORFOLK COUNTY RETIREMENT SYSTEM

SCHEDULES OF EMPLOYER ALLOCATIONS, PENSION AMOUNTS BY EMPLOYER AND AMORTIZATION OF EMPLOYERS' DEFERRED OUTFLOWS/INFLOWS

YEAR ENDED DECEMBER 31, 2019

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elephone: 617-786-7775 | Fax: 617-786-9919

Dorothy F. Di Pesa, CPA John F. Oteri, CPA

#### INDEPENDENT AUDITOR'S REPORT

To the Board of the Norfolk County Retirement System Canton, Massachusetts 02021

#### **Report on Schedules**

We have audited the accompanying schedule of employer allocations of the Norfolk County Retirement System (the System) as of and for the year ended December 31, 2019, and the related notes. We have also audited the totals for all entities of the columns titled ending net pension liability, total deferred outflows of resources, total deferred inflows of resources, total pension expense, total pension revenue, and total covered payroll (specified column totals) included in the accompanying schedule of pension amounts by employer of the System and the column totals included in the accompanying schedule of amortization of employers' deferred outflows/inflows as of and for the year ended December 31, 2019, 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 misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express an opinion on the schedule of employer 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 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 policies 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 opinion.

Email: DDiPesa@DIPESACPA.com | www.DiPesaCPA.com

#### Opinion

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and ending net pension liability, total deferred outflows of resources, total deferred inflows of resources, total pension expense, total pension revenue, total covered payroll and total amortization of deferred outflows/inflows for the total of all participating entities for the Norfolk County Retirement System as of and for the year ended December 31, 2019, in accordance with accounting principles generally accepted in the United States of America.

#### **Other Matter**

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the Norfolk County Retirement System as of and for the years ended December 31, 2019 and 2018, and our report thereon, dated December 16, 2020, expressed an unmodified opinion on those financial statements.

#### **Restriction on Use**

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

DI PESA & COMPANY

#### Di Pesa & Company

Certified Public Accountants Quincy, Massachusetts December 16, 2020



### SCHEDULE OF EMPLOYER ALLOCATIONS

#### FOR THE YEAR ENDED DECEMBER 31, 2019

Employer

		Employer
	Employer	Allocation
Employer	Contributions	<u>Percentage</u>
Town of Avon	\$ 1,326,058	1.7704%
Avon Housing Authority	12,894	0.0172%
Town of Bellingham	3,326,269	4.4410%
Bellingham Housing Authority	31,271	0.0418%
Town of Canton	5,635,051	7.5235%
Canton Housing Authority	91,654	0.1224%
Town of Cohasset	2,462,635	3.2879%
Cohasset Housing Authority	17,653	0.0236%
Norfolk County	3,910,135	5.2205%
Charles River Pollution Control	176,400	0.2355%
Town of Dover	1,421,027	1.8972%
Dover-Sherborn Regional High School	880,379	1.1754%
Town of Foxboro	4,844,077	6.4674%
Foxboro Housing Authority	82,115	0.1096%
Town of Franklin	5,765,354	7.6975%
Franklin Housing Authority	91,921	0.1227%
Town of Holbrook	2,140,930	2.8584%
Holbrook Housing Authority	42,315	0.0565%
King Philip Regional School District	751,063	1.0028%
Town of Medfield	2,774,283	3.7040%
Medfield Housing Authority	15,162	0.0202%
Town of Medway	2,628,086	3.5088%
Medway Housing Authority	90,396	0.1207%
Town of Millis	1,818,303	2.4277%
Millis Housing Authority	45,156	0.0603%
Town of Norfolk	2,260,845	3.0185%
Norfolk Housing Authority	34,836	0.0465%
Norfolk Mosquito Control	209,996	0.2804%
Town of Plainville	1,972,106	2.6330%
Town of Randolph	6,242,598	8.3346%
Randolph Housing Authority	100,000	0.1335%
Town of Sharon	4,434,384	5.9204%
Sharon Housing Authority	13,559	0.0181%
Town of Stoughton	5,889,570	7.8633%
Stoughton Housing Authority	83,283	0.1112%
Town of Walpole	5,089,078	6.7945%
Walpole Housing Authority	57,932	0.0773%
Town of Westwood	5,406,233	7.2180%
Town of Wrentham	2,146,064	2.8653%
Wrentham Housing Authority	28,867	0.0385%
Dedham Westwood Water District	549,590	<u>0.7338%</u>
	\$ 74,899,528	<u>100.0000%</u>
The Accompanying Notes are an Integ		

The Accompanying Notes are an Integral Part of the Schedule of Employer Allocations.

#### AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2019

			Deferred Outflows of Resources							_	
Employer	De	cember 31, 2019 Net Pension <u>Liability</u>	E E ai	ifference Between Expected nd Actual <u>xperience</u>		Difference Between Projected and Actual Investment Earnings		ssumption <u>Changes</u>	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of <u>Contributions</u>	Total Deferred Outflows of <u>Resources</u>	
Town of Avon	\$	10,394,255	\$	890,589	\$	1,356,724	\$	190,655	\$ 6,591	\$ 2,444,559	
Avon Housing Authority		100,984		8,653		13,182		1,852	274	23,961	
Town of Bellingham		26,073,705		2,234,039		3,403,332		478,246	146,313	6,261,930	
Bellingham Housing Authority		245,413		21,027		32,034		4,501	-	57,562	
Town of Canton		44,172,062		3,784,739		5,765,661		810,208	188,613	10,549,221	
Canton Housing Authority		718,627		61,573		93,801		13,181	-	168,555	
Town of Cohasset		19,303,701		1,653,974		2,519,661		354,071	309,810	4,837,516	
Cohasset Housing Authority		138,559		11,872		18,087		2,541	-	32,500	
Norfolk County		30,650,254		2,626,167		4,000,695		562,190	3,275,481	10,464,533	
Charles River Pollution Control		1,382,652		118,468		180,474		25,361	15,731	340,034	
Town of Dover		11,138,715		954,384		1,453,908		204,307	20,094	2,632,693	
Dover-Sherborn Regional High School		6,900,931		591,285		900,759		126,577	302,165	1,920,786	
Town of Foxboro		37,970,971		3,253,418		4,956,249		696,467	834,133	9,740,267	
Foxboro Housing Authority		643,476		55,133		83,991		11,802	105,035	255,961	
Town of Franklin		45,193,052		3,872,218		5,898,927		828,935	1,006,381	11,606,461	
Franklin Housing Authority		720,388		61,724		94,029		13,213	4,998	173,964	
Town of Holbrook		16,782,049		1,437,915		2,190,516		307,818	8,114	3,944,363	
Holbrook Housing Authority		331,719		28,422		43,299		6,085	13,928	91,734	
King Philip Regional School District		5,887,573		504,458		768,489		107,991	30,694	1,411,632	
Town of Medfield		21,746,679		1,863,293		2,838,537		398,879	484,286	5,584,995	
Medfield Housing Authority		118,597		10,161		15,480		2,175	9	27,825	
Town of Medway		20,600,634		1,765,098		2,688,945		377,859	276,135	5,108,037	
Medway Housing Authority		708,646		60,719		92,499		12,998	806	167,022	
Town of Millis		14,253,351		1,221,252		1,860,453		261,436	13,793	3,356,934	
Millis Housing Authority		354,029		30,334		46,212		6,494	39,272	122,312	

#### AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2019

		Deferred Outflows of Resources							
Employer	December 31, 2019 Net Pension <u>Liability</u>	Difference Between Expected and Actual <u>Experience</u>	Difference Between Projected and Actual Investment <u>Earnings</u>	Assumption <u>Changes</u>	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of <u>Contributions</u>	Total Deferred Outflows of <u>Resources</u>			
Taxan (Newfolk)	47 700 047								
Town of Norfolk	17,722,017	1,518,453	2,313,207	325,059	11,191	4,167,910			
Norfolk Housing Authority	273,008	23,391	35,634	5,008	14,408	78,441			
Norfolk Mosquito Control	1,646,266	141,055	214,884	30,196	14,995	401,130			
Town of Plainville	15,458,695	1,324,527	2,017,782	283,545	210,472	3,836,326			
Town of Randolph	48,933,552	4,192,711	6,387,165	897,543	1,022,387	12,499,806			
Randolph Housing Authority	783,796	67,157	102,306	14,376	169,129	352,968			
Town of Sharon	34,759,460	2,978,251	4,537,059	637,562	230,106	8,382,978			
Sharon Housing Authority	106,268	9,105	13,872	1,949	2,149	27,075			
Town of Stoughton	46,166,486	3,955,624	6,025,989	846,790	631,502	11,459,905			
Stoughton Housing Authority	652,870	55,939	85,218	11,975	23,614	176,746			
Town of Walpole	39,891,418	3,417,965	5,206,920	731,693	15,951	9,372,529			
Walpole Housing Authority	453,839	38,887	59,238	8,325	533	106,983			
Town of Westwood	42,377,844	3,631,006	5,531,466	777,299	484,378	10,424,149			
Town of Wrentham	16,822,560	1,441,387	2,195,805	308,561	383,338	4,329,091			
Wrentham Housing Authority	226,039	19,367	29,505	4,146	6,194	59,212			
Dedham Westwood Water District	4,308,238	369,136	562,344	79,022	5,102	1,015,604			
	\$ 587,113,377	\$ 50,304,876	\$ 76,634,338	\$ 10,768,891	\$ 10,308,105	\$ 148,016,210			

#### AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2019

	Deferred Inflows of Resources						Pension Expense								
Employer	Differe Betwe Expec and Ac <u>Experie</u>	en ted tual	Difference Between Projected and Actual Investment <u>Earnings</u>	Assumption <u>Changes</u>		Changes in Proportion and Differences Between Employer Contributions ind Proportionate Share of <u>Contributions</u>	Total Deferred Inflows of <u>Resources</u>	F	Proportionate Share of Plan Pension <u>Expense</u>	C	Net nortization from hanges in roportions	Total Pension <u>Expense</u>	`S Con Non E P	portionate hare of tributions from nemployer intities) Total ension evenue	Total Covered <u>Payroll</u>
Town of Avon	\$	-	\$ 1,649,487	\$-	\$	450,825	\$ 2,100,312	\$	1,653,609	\$	(197,751)	\$ 1,455,858	\$	66,572	\$ 5,839,940
Avon Housing Authority		-	16,025	-		68,489	84,514		16,065		(19,019)	(2,954)		647	54,365
Town of Bellingham		-	4,137,701	-		248,210	4,385,911		4,148,032		10,549	4,158,581		167,005	12,224,092
Bellingham Housing Authority		-	38,944	-		24,251	63,195		39,043		(22,344)	16,699		1,572	189,497
Town of Canton		-	7,009,775	-		246,484	7,256,259		7,027,276		(85,421)	6,941,855		282,927	23,863,452
Canton Housing Authority		-	114,041	-		119,960	234,001		114,325		(54,575)	59,750		4,603	379,780
Town of Cohasset		-	3,063,352	-		1,398,855	4,462,207		3,071,001		(78,468)	2,992,533		123,643	11,976,075
Cohasset Housing Authority		-	21,989	-		4,008	25,997		22,043		(2,931)	19,112		887	65,940
Norfolk County		-	4,863,964	-		447,740	5,311,704		4,876,109		2,191,140	7,067,249		196,319	9,584,599
Charles River Pollution Control		-	219,416	-		12,693	232,109		219,964		(7,571)	212,393		8,856	621,988
Town of Dover		-	1,767,630	-		97,882	1,865,512		1,772,044		(81,482)	1,690,562		71,345	5,592,326
Dover-Sherborn Regional High School		-	1,095,127	-		36,487	1,131,614		1,097,860		78,440	1,176,300		44,201	3,099,883
Town of Foxboro		-	6,025,708	-		236,178	6,261,886		6,040,753		17,274	6,058,027		243,209	20,323,916
Foxboro Housing Authority		-	102,115	-		15,971	118,086		102,370		9,312	111,682		4,122	401,889
Town of Franklin		-	7,171,798	-		400,628	7,572,426		7,189,705		(106,037)	7,083,668		289,467	25,204,407
Franklin Housing Authority		-	114,320	-		13,184	127,504		114,606		8	114,614		4,614	378,720
Town of Holbrook		-	2,663,185	-		649,735	3,312,920		2,669,835		(316,360)	2,353,475		107,491	8,898,997
Holbrook Housing Authority		-	52,642	-		69,139	121,781		52,773		(2,201)	50,572		2,125	182,773
King Philip Regional School District		-	934,314	-		436,705	1,371,019		936,646		(99,035)	837,611		37,711	3,321,945
Town of Medfield		-	3,451,034	-		118,790	3,569,824		3,459,651		111,224	3,570,875		139,290	11,755,970
Medfield Housing Authority		-	18,820	-		21,692	40,512		18,867		(16,139)	2,728		760	64,354
Town of Medway		-	3,269,166	-		115,204	3,384,370		3,277,328		191,644	3,468,972		131,950	12,385,085
Medway Housing Authority		-	112,457	-		48,223	160,680		112,738		(17,732)	95,006		4,539	301,687
Town of Millis		-	2,261,899	-		405,222	2,667,121		2,267,547		(264,146)	2,003,401		91,294	8,338,887
Millis Housing Authority		-	56,182	-		675	56,857		56,322		25,887	82,209		2,268	197,774

#### AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2019

		Defer	red Inflows of	Resources	P	ension Expense				
<u>Employer</u>	Difference Between Expected and Actual <u>Experience</u>	Difference Between Projected and Actual Investment <u>Earnings</u>	Assumption <u>Changes</u>	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of <u>Contributions</u>	Total Deferred Inflows of <u>Resources</u>	Proportionate Share of Plan Pension <u>Expense</u>	Net Amortization from Changes in <u>Proportions</u>	Total Pension <u>Expense</u>	(Proportionate Share of Contributions from Nonemployer Entities) Total Pension <u>Revenue</u>	Total Covered <u>Payroll</u>
Town of Norfolk	-	2,812,350	-	163,900	2,976,250	2,819,373	(82,263)	2,737,110	113,512	9,409,488
Norfolk Housing Authority	-	43,324	-	152	43,476	43,432	13,162	56,594	1,749	146,080
Norfolk Mosquito Control	-	261,250	-	19,340	280,590	261,902	6,504	268,406	10,545	893,688
Town of Plainville	-	2,453,178	-	175,719	2,628,897	2,459,304	138,058	2,597,362	99,015	8,900,483
Town of Randolph	-	7,765,387	-	266,755	8,032,142	7,784,776	95,739	7,880,515	313,425	25,641,470
Randolph Housing Authority	-	124,382	-	46,269	170,651	124,693	(6,822)	117,871	5,020	389,022
Town of Sharon	-	5,516,066	-	559,707	6,075,773	5,529,838	(495,413)	5,034,425	222,639	18,686,741
Sharon Housing Authority	-	16,864	-	80,967	97,831	16,906	(21,548)	(4,642)	681	152,579
Town of Stoughton	-	7,326,274	-	405,915	7,732,189	7,344,567	(205,574)	7,138,993	295,702	24,954,670
Stoughton Housing Authority	-	103,605	-	46,987	150,592	103,864	(46,158)	57,706	4,182	412,102
Town of Walpole	-	6,330,468	-	1,864,413	8,194,881	6,346,274	(827,682)	5,518,592	255,509	22,085,270
Walpole Housing Authority	-	72,021	-	29,486	101,507	72,201	(24,444)	47,757	2,907	255,494
Town of Westwood	-	6,725,044	-	339,284	7,064,328	6,741,837	312,792	7,054,629	271,435	22,715,203
Town of Wrentham	-	2,669,614	-	91,196	2,760,810	2,676,279	28,243	2,704,522	107,751	9,115,593
Wrentham Housing Authority	-	35,871	-	5,618	41,489	35,960	(4,228)	31,732	1,448	117,741
Dedham Westwood Water District		683,685		525,167	1,208,852	685,392	(144,632)	540,760	27,595	2,365,315
	<u>\$</u> -	\$ 93,170,474	<u>\$</u> -	\$ 10,308,105	\$ 103,478,579	\$ 93,403,110	\$ -	\$ 93,403,110	\$ 3,760,532	\$311,489,280

#### SCHEDULE OF AMORTIZATION OF EMPLOYERS' DEFERRED OUTFLOWS/INFLOWS

#### FOR THE YEAR ENDED DECEMBER 31, 2019

FOR THE YEARS ENDING DECEMBER 31

<u>Employer</u>	<u>2020</u>		<u>2021</u>		<u>2022</u>		<u>2023</u>	<u>Thereafter</u>		Total
Town of Avon	\$ 288,830	\$	117,075	Ś	225,975	Ś	(287,633)	\$ -	Ś	344,247
Avon Housing Authority	(18,028)	7	(18,435)	+	(17,540)	*	(6,550)	-	+	(60,553)
Town of Bellingham	1,243,413		519,754		791,657		(678,805)	-		1,876,019
Bellingham Housing Authority	(8,736)		3,354		6,308		(6,559)	-		(5,633)
Town of Canton	2,037,319		962,303		1,426,757		(1,133,417)	-		3,292,962
Canton Housing Authority	(22,718)		(13,488)		(5,397)		(23,843)	-		(65,446)
Town of Cohasset	737,112		4,480		208,074		(574,357)	-		375,309
Cohasset Housing Authority	3,867		2,485		3,829		(3,678)	-		6,503
Norfolk County	3,691,678		1,257,100		984,481		(780,430)	-		5,152,829
Charles River Pollution Control	60,407		33,896		48,391		(34,769)	-		107,925
Town of Dover	458,579		240,273		355,172		(286,843)	-		767,181
Dover-Sherborn Regional High School	422,522		229,136		300,022		(162,508)	-		789,172
Town of Foxboro	1,896,844		1,057,917		1,454,657		(931,037)	-		3,478,381
Foxboro Housing Authority	48,404		46,711		53,106		(10,346)	-		137,875
Town of Franklin	2,144,234		1,265,368		1,732,644		(1,108,211)	-		4,034,035
Franklin Housing Authority	33,538		12,141		19,894		(19,113)	-		46,460
Town of Holbrook	477,287		218,200		394,637		(458,681)	-		631,443
Holbrook Housing Authority	7,993		(14,474)		(10,964)		(12,602)	-		(30,047)
King Philip Regional School District	156,459		(686)		60,615		(175,775)	-		40,613
Town of Medfield	1,169,591		580,288		804,241		(538,949)	-		2,015,171
Medfield Housing Authority	(9,633)		(280)		837		(3,611)	-		(12,687)
Town of Medway	1,155,865		443,000		655,555		(530,753)	-		1,723,667
Medway Housing Authority	14,352		2,641		9,993		(20,644)	-		6,342
Town of Millis	426,187		247,354		394,686		(378,414)	-		689,813
Millis Housing Authority	42,049		13,897		17,438		(7,929)	-		65,455
Town of Norfolk	764,574		349,857		538,308		(461,079)	-		1,191,660
Norfolk Housing Authority	25,227		7,042		9,563		(6,867)	-		34,965
Norfolk Mosquito Control	83,421		31,442		48,759		(43,082)	-		120,540
Town of Plainville	853,230		298,141		460,194		(404,136)	-		1,207,429
Town of Randolph	2,501,944		1,326,145		1,844,623		(1,205,048)	-		4,467,664
Randolph Housing Authority	45,969		68,974		77,525		(10,151)	-		182,317
Town of Sharon	1,228,766		802,525		1,161,012		(885,098)	-		2,307,205
Sharon Housing Authority	(21,082)		(21,431)		(20,852)		(7,391)	-		(70,756)
Town of Stoughton	2,068,615		1,166,072		1,648,010		(1,154,981)	-		3,727,716
Stoughton Housing Authority	(8,121)		21,740		27,975		(15,440)	-		26,154
Town of Walpole	1,037,635		414,359		835,380		(1,109,726)	-		1,177,648
Walpole Housing Authority	(1,096)		7,054		11,729		(12,211)	-		5,476
Town of Westwood	2,292,240		861,260		1,305,775		(1,099,454)	-		3,359,821
Town of Wrentham	859,694		473,843		646,942		(412,198)	-		1,568,281
Wrentham Housing Authority	7,490		6,700		9,011		(5,478)	-		17,723
Dedham Westwood Water District	31,670		(64,583)		(19,556)		(140,779)			(193,248)
	\$ 28,227,591	\$	12,959,150	\$	18,499,466	\$	(15,148,576)	\$	\$	44,537,631

The Accompanying Notes are an Integral Part of the Schedule of Amortization of Employers' Deferred Outflows/Inflows.

# NOTE 1 – DESCRIPTION OF THE ENTITY

The Norfolk County Retirement System (the System) was established to provide retirement benefits to eligible employees of its member employers. The System is governed by a five member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the System are managed by the Executive Director. The legislative body for the System is an Advisory Council consisting of full-time treasurers or other qualified officials of the member units. The Advisory Council meets at least twice annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

The System issued a publicly available audited financial statement for the year ended December 31, 2019, which is available through the System's website at www.norfolkcountyretirement.org, or a copy may be obtained by submitting a request to the System's Executive Director at 480 Neponset Street, Building #15, Canton, MA 02021.

# Plan Description

The System is a cost-sharing multiple-employer contributory defined benefit governmental pension plan established under Chapter 32 of the Massachusetts General Laws ("MGL") covering all employees of governmental member units deemed eligible by the Board. The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of MGL. The Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

# <u>Membership</u>

Membership in the Plan is mandatory immediately upon the commencement of employment for all non-teaching permanent employees regularly scheduled to work 20 hours or more per week. The pensions of school department employees who serve in a teaching capacity are administered by the Commonwealth of Massachusetts' Teachers Retirement System.

# **Benefits**

Massachusetts Contributory Retirement System benefits are, with certain exceptions, uniform from system to system. The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

# NOTE 1 – DESCRIPTION OF THE ENTITY (Continued)

### Benefits (Continued)

There are three classes of membership in the retirement system: group 1, group 2, and group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, group 4 consists of police officers, firefighters, and other hazardous positions.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of 20 years of service or upon reaching the age of 55 with 10 years of service if hired after 1978 and if classified in groups 1 or 2. A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance upon reaching the age of 60 with 10 years of service if in group 1, 55 years of age with 10 years of service if in group 2, and 55 years of age if hired prior to 1978 or if classified in group 4. Normal retirement for most employees occurs at age 65 (except for certain hazardous duty and public safety positions, whose normal retirement is at age 55).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 are entitled to request a refund of their accumulated total deductions. In addition, with at least ten years of creditable service, such employees are entitled to receive one hundred (100%) percent of the regular interest which has accrued upon those deductions. Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

## **Contributions**

Active members contribute between 5 and 9% of their gross regular compensation. Members joining the System after January 1, 1979 must contribute an additional 2% on regular compensation earned at a rate in excess of \$30,000. The percentage rate is keyed to the date upon which an employee's membership commences. These deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the Public Employee Retirement Administration Commission's (PERAC) actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by

# NOTE 1 – DESCRIPTION OF THE ENTITY (Continued)

# **Contributions** (Continued)

the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System. The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment.

# NOTE 2 – ACTUARIAL ASSUMPTIONS AND METHODS

The total pension liability was determined by an actuarial valuation as of January 1, 2020. The following actuarial assumptions were applied to all periods included in the measurement that was rolled forward to December 31, 2019:

Actuarial cost method:	Entry Age Normal Cost Method
Asset valuation method	Market value
Investment rate of return	7.75%
Projected salary increases	3.5% - 5.5%
Inflation	3.0%
Cost of living increases	3.0% of first \$18,000 of retirement income
Mortality:	The RP-2014 Blue Collar Mortality Table adjusted with Scale with MP-2014

## NOTE 3 - NET PENSION LIABILITY

The components of the net pension liability of the System as of December 31, 2019, is as follows:

Total Pension Liability	\$1,657,574,687
Fiduciary Net Position	<u>1,070,461,310</u>
System's Net Pension Liability	\$ <u>587,113,377</u>
Fiduciary Net Position as a percentage of total pension liability	64.6%

# NOTE 3 - NET PENSION LIABILITY (Continued)

The total pension liability is calculated by the System's actuary and plan fiduciary net position is reported in the System's financial statements. The net pension liability is disclosed in accordance with the requirements of Governmental Accounting Standards Board (GASB) Statement No. 67 in the System's notes to financial statements and required supplementary information.

### **Discount Rate**

The discount rate used to measure the total pension liability as of December 31, 2019 was 7.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at contractually required rates, actuarially determined. Under Chapter 32 of the MGL, employers are required to make the necessary contributions such that the Plan reaches full funding status by 2040. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current Plan members. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine total pension liability.

### Long-Term Expected Rate of Return

The long term expected rate of return on Plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of 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. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized as follows:

Asset Class	Target <u>Allocation</u>	Long-term Expected Real <u>Rate of Return</u>
Domestic Equity	30.5%	6.6%
International Equities	15.5	8.0%
Fixed Income	20.5	3.8%
Real Estate	9.5	8.2%
Private Equity	10.0	9.1%
Hedge Funds	11.5	7.2%
Real Assets	2.5	9.9%
Total	<u>100.0</u> %	

The System's policy in regard to the allocation of invested Plan assets is established and may be amended by the Board. Plan assets are managed with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the Plan.

The annual money-weighted rate of return on investments, net of investment expense was 16.28% for the year ended December 31, 2019. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

# NOTE 3 – <u>NET PENSION LIABILITY</u> (Continued)

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

The following presents the net pension liability of the System as of December 31, 2019, calculated using the discount rate of 7.75%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is one-percentage point lower (6.75%) or one-percentage point higher (8.75%) than the current rate:

	<u>1% Decrease (6.75%)</u>	Current Discount <u>Rate (7.75%)</u>	<u>1% Increase (8.75%)</u>
System's Net Pension Liability	\$762,545,338	\$587,113,377	\$438,049,042

### NOTE 4 – BASIS OF PRESENTATION

The Schedule of Employer Allocations, Schedule of Pension Amounts by Employer, and Schedule of Amortization of Employers' Deferred Outflows/Inflows present amounts that are elements of the financial statements of the System or of its participating employers. Accordingly, they do not purport to be a complete presentation of the financial position or changes in financial position of either the System or its participating employers. The amounts presented in the schedules were prepared in accordance with U.S. generally accepted accounting principles. Such preparation requires management of the System to make a number of estimates and assumptions relating to the reported amounts. Due to inherent nature of these estimates, actual results may differ from those estimates.

## NOTE 5 – PENSION EXPENSE

System pension expense for the year ended December 31, 2019 is as follows:

Service Cost	\$ 36,227,627
Interest Cost	119,795,961
Expected Return on Assets	(70,767,095)
Member Contributions	(33,722,562)
Current Year Amortization of Difference Between	
Expected and Actual Experience	27,025,941
Current Year Amortization of Assumption Changes	( 2,085,239)
Current Year Amortization of Difference Between	
Projected and Actual Investment Earnings	10,299,530
Change in Plan Provisions	5,395,128
Administrative Expenses	<u>1,233,819</u>
Total	\$ <u>93,403,110</u>

The System pension expense is based on the January 1, 2020 valuation. The employers' allocation of the pension expense is shown in the Schedule of Pension Amounts by Employer. The difference between expected and actual experience and the effect of assumption changes are amortized over the average expected remaining service lives of active and inactive members as of January 1, 2020 (4.19 years). The difference between projected and actual investment earnings is amortized over 5 years.

### NOTE 6 - DEFERRED INFLOWS OF RESOURCES AND DEFERRED OUTFLOWS OF RESOURCES

Annual changes to the net pension liability resulting from differences between expected and actual experience and from changes in assumptions are deferred and amortized over a closed period equal to the average of the expected service lives of all members determined for the period during which the changes occurred. Differences between projected and actual earnings are amortized over a closed 5 year period. The following presents a summary of the changes in the collective deferred outflows of resources and deferred inflows of resources for the year ended December 31, 2019:

<u>Year</u>	Amortization Period	Original <u>Amount</u>	Accumulated Amortization	Beginning of year <u>Balance</u>	Current Year <u>Deferrals</u>	Current Year <u>Amortizations</u>	End of Year <u>Balance</u>
	ed Outflows of nt Between Exp 4.9 4.27 4.19	Resources ected and Actual \$ 13,828,826 61,837,812 -	Experience \$ 11,288,837 28,963,852 -	\$   2,539,989 32,873,960 -	\$ - - 41,916,868	\$2,539,989 14,481,926 10,004,026	\$- 18,392,034 31,912,842
Differe 2015 2018	nce Between Pi 5 5	ojected and Actu 75,186,656 127,723,896	al Investment E 60,149,324 25,544,779	arnings 15,037,332 102,179,117	-	15,037,332 25,544,779	- 76,634,338
Differe 2017	nce from Assun 4.27	nption Changes 36,207,214	16,958,882	19,248,332	-	8,479,441	10,768,891
Differe 2016 2017	ed Inflows of F nce Between Pr 5 5 5	<u>esources</u> ojected and Actu (7,466,805) (58,699,395)	al Investment Ea (4,480,083) (23,479,762)	arnings (2,986,722) (35,219,633)	- - - (95.246.700)	(1,493,361) (11,739,880) (17,040,240)	(1,493,361) (23,479,753) (68,107,260)
2019 Differe 2015	-	- nption Changes (57,518,820)	- (46,954,140)	- (10,564,680)	(85,246,700)	(17,049,340) (10,564,680)	(68,197,360)

#### **Total Deferred Outflows/Inflows of Resources**

\$<u>44,537,631</u>

The following schedule reflects the amortization of the balance of deferred outflows of resources and deferred inflows of resources at December 31, 2019:

Measurement Period Ending December 31:	Amount		
2020	\$ 28,227,591		
2021	12,959,150		
2022	18,499,466		
2023	(15,148,576)		
Thereafter			
Total	\$ <u>44,537,631</u>		

# NOTE 7 – <u>PROPORTIONATE SHARE ALLOCATION METHODOLOGY AND</u> <u>EMPLOYER ALLOCATIONS</u>

GASB Statement No. 68 requires employers in the Plan to recognize their proportionate share of the collective net pension liability. Employers' proportionate shares were calculated on the basis of actual employer contributions for the year ended December 31, 2019. The Schedule of Employer Allocations display the proportionate allocation used to allocate the Difference Between Expected and Actual Experience; Difference Between Projected and Actual Investment Earnings; Proportionate Share of Plan Pension Expense; and Proportionate Share of Contributions from Nonemployer Entities.

# NOTE 8 – ADDITIONAL FINANCIAL AND ACTUARIAL INFORMATION

Information contained in these Notes to Schedules of Employer Allocations and Pension Amounts by Employer (the Schedules) was extracted from the audited financial statements of the System for the years ended December 31, 2019 and 2018. Additional financial information supporting the preparation of the Schedules (including the unqualified audit opinion on the financial statements and required supplementary information) is located in the audited financial statements of the System for the years ended December 31, 2019 and 2018. A copy may be obtained by submitting a request to the System's Executive Director at 480 Neponset Street, Building #15, Canton, MA 02021.