

**City of South Burlington
Retirement Income Plan**

**Actuarial Valuation
as of July 1, 2017**

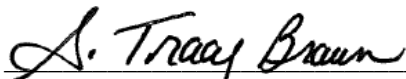
April 24, 2018

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION
AS OF JULY 1, 2017**

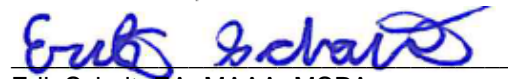
This valuation has been conducted in accordance with generally accepted actuarial principles and practices. The results shown in this report are reasonable actuarial results. However, a different set of results could also be considered reasonable. The selection of the best estimate assumption requires professional judgment from the actuary. Thus, reasonable results differing from those presented in this report could have been developed by another actuary.

This communication is intended solely for the use of the City, its financial advisors and its outside auditors. Numbers presented herein should not be shared with other parties without our consent.

In making this year's computations, we relied upon employee data and Plan documentation provided to us by the City of South Burlington. We did not audit the employee data; our valuation is based upon our interpretation of applicable Plan documents. There is no relationship with the City that impairs our objectivity. This report is an actuarial communication for which the undersigned (1) are the responsible actuaries; (2) are credentialed Members of the American Academy of Actuaries and; (3) meet the Academy's Qualification Standards for Statements of Actuarial Opinion issued in the US.



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April 24, 2018
Date

TABLE OF CONTENTS

	<u>Page</u>
ACTUARIAL STATEMENT	--
INTRODUCTION	i
SUMMARY OF ACTUARIAL VALUATION	1
RECONCILIATION OF PARTICIPANT COUNTS	2
PLAN ASSET EXPERIENCE SINCE THE PRECEDING VALUATION DATE	3
DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS	4
DETERMINATION OF RECOMMENDED EMPLOYER CONTRIBUTION	6
ACCUMULATED BENEFITS AND ASSETS AS OF VALUATION DATE	8
ACTUARIAL ASSUMPTIONS AND COST METHOD	9
SUMMARY OF PRINCIPAL PLAN PROVISIONS - PUBLIC SAFETY EMPLOYEES	10
SUMMARY OF PRINCIPAL PLAN PROVISIONS - NON-PUBLIC SAFETY EMPLOYEES	11

INTRODUCTION

Following is the report of the actuarial valuation of the City of South Burlington Retirement Income Plan (the "Plan") that has been made for purposes of determining a recommended level of contribution and reviewing the current funded status of the Plan. The valuation, performed as of the beginning of the current plan year, July 1, 2017, measures the liabilities of the Plan, compares them to existing Plan assets and determines what level of contribution, is recommended to properly fund the Plan. This report formalizes valuation results, which were initially issued in draft form on December 12, 2017 and presented to City Council on December 18, 2017. This final report reflects no changes from the draft report.

Actuarial Asset Value Smoothing Method

Effective July 1, 2016, an asset smoothing method was adopted for computing the Plan's contribution. Asset smoothing helps reduce volatility from asset returns by smoothing gains and losses over a 5-year period. This report will include calculations of a recommended contribution and funded status based on both the market value of assets and the actuarial value of assets.

Minimum Recommended Contribution for 2017-2018 Plan Year

The valuation reflects an increase in this year's minimum recommended contribution both in dollar amounts and as a percentage of employee compensation:

Minimum Recommended Contribution for 2017-2018 FY – Market Value of Assets

	<u>10-Year Amortization</u>		<u>20-Year Amortization</u>	
	<u>\$ Amount</u>	<u>% Payroll</u>	<u>\$ Amount</u>	<u>% Payroll</u>
Public Safety Group:	1,128,238	21.8%	905,427	17.5%
Non-Public Safety Group:	441,489	21.1%	374,071	17.9%
Total:	<u>\$1,569,727</u>	<u>21.6%</u>	<u>\$1,279,498</u>	<u>17.6%</u>

Minimum Recommended Contribution for 2017-2018 FY- Actuarial Value of Assets

	<u>10-Year Amortization</u>		<u>20-Year Amortization</u>	
	<u>\$ Amount</u>	<u>% Payroll</u>	<u>\$ Amount</u>	<u>% Payroll</u>
Public Safety Group:	1,092,398	21.1%	881,480	17.1%
Non-Public Safety Group:	427,895	20.5%	364,988	17.5%
Total:	<u>\$1,520,293</u>	<u>20.9%</u>	<u>\$1,246,468</u>	<u>17.2%</u>

The above is the amount payable by the City, which is in addition to mandatory employee contributions required from Public Safety employees of 6.5% of compensation. Amortization of unfunded liabilities is assumed to be paid over a minimum of a 20-year period (see pages 6-7).

Projected Contribution for 2017-2018 Fiscal Year

To assist with the City's budget process, we have projected the Plan's contribution for the 2017-2018 fiscal year assuming varying rates of return during the current fiscal year:

Projected Employer Contribution for 2018-2019 FY -- 10 Year Amortization

Assumed			
ROR	PS Cont	Non-PS Cont	Total
7.25%	1,102,465	434,287	1,536,752
0.00%	1,151,735	451,132	1,602,867
-7.25%	1,201,004	467,977	1,668,981

INTRODUCTION (CONTINUED)

Projected Employer Contribution for 2018-2019 FY -- 20 Year Amortization

Assumed			
ROR	PS Cont	Non-PS Cont	Total
7.25%	895,785	372,422	1,268,207
0.00%	928,706	383,677	1,312,383
-7.25%	961,626	394,933	1,356,559

In addition to stated rates of investment return, the projection uses (1) current valuation assumptions as to payroll growth; (2) assumed City contribution of \$1,246,468 for current FY; and (3) the use of Actuarial Asset Value (vs. Market Value).

Plan Experience: Assets

This year's 12.21% investment return was greater than the 7.5% assumed for the 6/30/17 plan year in the valuation calculations, resulting in actuarial gain. Historical approximate rates of annual asset return and assumed rates of return over the last ten years follow:

<u>Plan Year</u>	<u>Rate of Return</u>	<u>Assumed Rate</u>
6/30/17	12.21%	7.5%
6/30/16	(1.06%)	7.5%
6/30/15	1.6%	7.5%
6/30/14	16.4%	7.5%
6/30/13	13.5%	7.5%
6/30/12	1.7%	7.5%
6/30/11	20.1%	7.5%
6/30/10	13.2%	7.5%
6/30/09	(16.0%)	7.5%
6/30/08	(9.0%)	7.5%
6/30/07	14.1%	7.5%
6/30/06	9.9%	7.5%
6/30/05	7.9%	7.5%
3-Year Average:		4.24%
5-Year Average:		8.52%
10-Year Average:		5.26%

Publicly funded plans are generally deemed to exist in perpetuity or at a minimum over a long period, due to the ongoing existence of the public employer plan sponsor. The Pension Advisory Committee in conjunction with Plan Investment Managers should continue to evaluate the current investment portfolio to ascertain if the assumed rate of return is supported. Its determination should be based primarily on the classes of assets in which the Plan is invested, the risk associated with these classes and the investment manager's long term objectives.

Plan Experience: Liabilities

Liabilities change with payroll and changes in the covered group. Valuation payroll this year, as compared to last year was less than the expected 5% for the Public Safety group. Average Compensation increased 3.72% for Public Safety and increased 4.57% for Non-Public Safety.

INTRODUCTION (CONTINUED)

Funded Status Update

The Plan's funded status increased from last year to this year. Following is a comparison, using the market value of assets:

	<u>Funded Ratio Current Year – July 1, 2017</u>		
	<u>Public Safety</u>	<u>Non-PS</u>	<u>Total</u>
PV of Accumulated Plan Benefits:	\$22,901,687	\$8,102,727	\$31,004,414
Fair Market Value of Plan Assets:	23,601,759	8,151,463	31,753,222
(Shortfall)/Excess of Assets:	700,072	48,736	748,808
Funded Ratio:	103%	101%	102%

	<u>Funded Ratio Prior Year – July 1, 2016</u>		
	<u>Public Safety</u>	<u>Non-PS</u>	<u>Total</u>
PV of Accumulated Plan Benefits:	\$21,132,569	\$7,608,481	\$28,741,050
Fair Market Value of Plan Assets:	20,998,665	7,359,995	28,358,660
(Shortfall)/Excess of Assets:	(133,904)	(248,486)	(382,390)
Funded Ratio:	99%	97%	99%

The Plan's current funded ratio measured on the smoothed Actuarial Asset Value is 103.50% (see p. 8)

Liabilities stated here have been measured on an *ongoing Plan basis*, and as such are based on the Plan's current funding assumptions. If the Plan were terminated, additional calculations would be required to determine liabilities on a *Plan termination basis*. In the current low interest rate environment, unfunded liabilities on a Plan Termination basis would be considerably higher than have been stated here. Thus the funded ratios on a termination basis would be less than what is stated above.

Under the Plan's funding method, contributions fund both benefits accrued to date and those expected to accrue from future service with the objective of funding a portion of future benefits before they accrue so that over the long term, costs will be consistent as a percentage of payroll. A healthy funded ratio is one which exceeds 100%, thereby helping to keep the costs of future benefits level, as a percentage of payroll.

Actuarial Assumptions and Funding Method

The assumptions and funding method underlying the valuation are outlined on page 9. We have done a review of the current funding assumptions and the following changes were made:

1. The mortality assumption has been updated to the RP-2014 mortality table adjusted to 2006 with Scale MP-2014 and then projected generationally with scale MP2017. The blue collar table has been used for the Police and Fire groups. The update reflects an expectation that mortality will continue to improve, as most recently published by the Society of Actuaries.

This change decreased the Entry Age Normal Accrued Liability by \$5,152.

2. The assumed rate of return on assets was reduced from 7.5% to 7.25%. This reduction was based on analysis of the expected rate of return on assets using long term capital market assumptions and the current plan asset allocation. Investment advisor input was also utilized in the analysis of the assumed rate of return on plan assets.

This change increased the Entry Age Normal Accrued Liability by \$1,052,680.

Each year's asset and liabilities experience will continue to be reviewed in comparison with experience anticipated under the assumptions, with changes being made as needed in consideration of such experience (over the long term), combined with the City's expectation for the future.

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2017**

SUMMARY OF ACTUARIAL VALUATION

	<u>PUBLIC SAFETY</u>	<u>NON-PUBLIC SAFETY</u>	<u>TOTAL</u>
ACTUARIAL VALUATION DATE	7/1/2017	7/1/2017	

MINIMUM RECOMMENDED EMPLOYER CONTRIBUTION RANGE BASED ON MARKET VALUE OF ASSETS :

<i>MINIMUM BASED ON 10-YEAR AMORTIZATION OF UEAAL:</i>	1,128,238	441,489	1,569,727
<i>MINIMUM CONTRIBUTION AS PERCENTAGE PAYROLL:</i>	21.8%	21.1%	21.6%
<i>MINIMUM BASED ON 20-YEAR AMORTIZATION OF UEAAL:</i>	905,427	374,071	1,279,498
<i>MINIMUM CONTRIBUTION AS PERCENTAGE PAYROLL:</i>	17.5%	17.9%	17.6%

MINIMUM RECOMMENDED EMPLOYER CONTRIBUTION RANGE BASED ON ACTUARIAL VALUE OF ASSETS :

<i>MINIMUM BASED ON 10-YEAR AMORTIZATION OF UEAAL:</i>	1,092,398	427,895	1,520,293
<i>MINIMUM CONTRIBUTION AS PERCENTAGE PAYROLL:</i>	21.1%	20.5%	20.9%
<i>MINIMUM BASED ON 20-YEAR AMORTIZATION OF UEAAL:</i>	881,480	364,988	1,246,468
<i>MINIMUM CONTRIBUTION AS PERCENTAGE PAYROLL:</i>	17.1%	17.5%	17.2%

PARTICIPANT DATA

Retired Participants currently receiving benefits:	30	37	67
Terminated vested or inactive but still employed participants:	18	33	51
Participants currently employed:	75	40	115
Total participants:	123	110	233
Ineligible Employees:	0	0	0
Aggregate compensation of active participants:	5,167,121	2,090,244	7,257,365
Average compensation per active participant:	68,895	52,256	63,108

ASSET DATA

Fair market value of Plan assets:	23,601,759	8,151,463	31,753,222
Approximate annual rate of return for the plan year (net of expenses):	12.21%	12.21%	12.21%
Actuarial asset value:	23,852,010	8,246,383	32,098,393
Approximate annual rate of return for Actuarial assets (net of expenses):	6.97%	6.94%	6.96%

SUMMARY OF ASSETS AND LIABILITIES

Present value of vested accumulated benefits:	22,713,466	7,984,788	30,698,254
Present value of non-vested accumulated benefits:	188,221	117,939	306,160
Present value of total accumulated benefits:	22,901,687	8,102,727	31,004,414
Fair market value of Plan assets:	23,601,759	8,151,463	31,753,222
Assets above/(below) total accumulated benefits:	700,072	48,736	748,808
Market Value Funded ratio:	103%	101%	102%
Actuarial value of Plan assets:	23,852,010	8,246,383	32,098,393
Assets above/(below) total accumulated benefits:	950,323	143,656	1,093,979
Actuarial Value Funded ratio:	104%	102%	104%

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2017**

RECONCILIATION OF PARTICIPANT COUNT

	<u>PUBLIC SAFETY</u>	<u>NON-PUBLIC SAFETY</u>	<u>TOTAL</u>
<i>A. RETIREES AND BENEFICIARIES CURRENTLY RECEIVING BENEFITS:</i>			
1. Retirees and beneficiaries at prior valuation date:	30	38	68
2. New retirees and beneficiaries:	1	0	1
3. Retirees Deceased:	1	1	2
4. Retirees and beneficiaries at current valuation date (1+2-3):	30	37	67
 <i>B. TERMINATED VESTED AND INACTIVE BUT STILL EMPLOYED PARTICIPANTS:</i>			
1. Terminated vested participants at prior valuation date:	13	32	45
2. New terminated vested participants:	5	1	6
3. Participants moved to inactive status but not yet terminated:	0	0	0
4. Participants retired, cashed out or moved back to active status:	0	0	0
5. Terminated vested participants at current valuation date (1+2+3-4):	18	33	51
 <i>C. ACTIVELY EMPLOYED PARTICIPANTS:</i>			
1. Active participants at prior valuation date:	76	40	116
2. New participants:	4	1	5
3. Participants retired:	0	0	0
4. Terminated without vested benefits:	0	0	0
5. Terminated with vested benefits due in future:	5	1	6
6. Terminated with vested benefits and cashed out:	0	0	0
7. Participants transferred out:	0	0	0
8. Active participants at current valuation date (1+2-3-4-5-6-7):	75	40	115
 <i>D. TOTAL PARTICIPANTS (A+B+C):</i>	 123	 110	 233
 <i>E. AVERAGE AGES:</i>			
1. Retirees and Beneficiaries:	63.47	75.41	
2. Terminated or Inactive participants with vested benefits:	38.94	52.30	
3. Active participants:	39.39	53.88	
 <i>F. AVERAGE MONTHLY BENEFITS:</i>			
1. Retirees and Beneficiaries:	2,743.55	901.89	
2. Terminated or Inactive participants with vested benefits:	943.37	642.47	
3. Active participants: *	3,256.17	2,035.23	
 <i>G. AVERAGE YEARS OF SERVICE FOR ACTIVE PARTICIPANTS:</i>			
	14.52	13.63	

* Average of benefit expected at retirement age, based on current compensation and service at retirement

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2017**

PLAN ASSET EXPERIENCE SINCE THE PRECEDING VALUATION DATE

SUMMARY OF INCOME, EXPENSES AND RATE OF RETURN

Asset fair market value at July 1, 2016:		28,358,660
Employer contribution:		1,037,443
Mandatory Employee contributions:		313,535
Benefit Payments to Participants:		(1,413,887)
Investment income and expense:		
Interest and Dividends, other income	567,898	
Realized gains and (losses)	246,678	
Unrealized appreciation/(depreciation) in market value:	2,794,646	
Expenses paid from Plan assets:	(151,750)	
Investment earnings on market value basis, net of expenses:		3,457,472
Asset fair market value at June 30, 2017:		31,753,223
Approximate annual rate of return for the plan year (net of expenses):		12.21%
Additional Employer Contributions received after year-end:		0
Asset Fair Market Value at June 30, 2017:		31,753,223

COMPOSITION OF ASSETS AT JUNE 30, 2017:

	<u>Market Value</u>	<u>Percent Total</u>
Employer Contribution Receivable:	0	--
Money Market Funds	1.73	0.00%
Equity Mutual Funds:	19,282,516	60.73%
Fixed Income Mutual Funds:	10,842,453	34.15%
Other Assets:	1,613,251	5.08%
Accrued Income:	15,003	0.05%
Total:	<u>31,753,223</u>	<u>100.0%</u>

ALLOCATION OF ASSETS BETWEEN PUBLIC SAFETY AND NON-PUBLIC SAFETY GROUPS

	<u>PUBLIC SAFETY</u>	<u>NON-PUBLIC SAFETY</u>	<u>TOTAL</u>
Asset Fair Market Value at July 1, 2016:	20,998,665	7,359,995	28,358,660
Employer contributions:	731,137	306,306	1,037,443
Mandatory Employee contributions:	313,535	0	313,535
Benefit Payments to Participants:	(1,009,058)	(404,829)	(1,413,887)
Share of Investment Earnings (net of expenses):	2,567,481	889,991	3,457,472
Asset fair market value at June 30, 2017:	23,601,759	8,151,463	31,753,222
Employer contribution receivable:	0	0	0
Employee contribution receivable:	0	0	0
Asset fair market value at June 30, 2017:	23,601,759	8,151,463	31,753,222

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2017**

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

DETERMINATION OF ACTUARIAL VALUE OF ASSETS

Actuarial Asset value at July 1, 2016 (excluding receivables):	30,216,436
Contributions less benefit payments and operating expenses:	(214,659)
Average Actuarial Value:	30,109,106
Assumed net investment income, at 7.25%:	2,182,910
Preliminary value of assets at the end of the year:	32,184,687
Asset fair market value at June 30, 2017 (excluding receivables):	31,753,223
Smoothing adjustment, 20%:	(86,293)
Actuarial Asset Value at June 30, 2017:	32,098,394
Contribution receivables:	0
Final Actuarial Value of Assets:	32,098,394
Approximate annual rate of return for the plan year (net of expenses):	6.96%
Actuarial Value of Assets as a percent of market value of assets:	101.09%

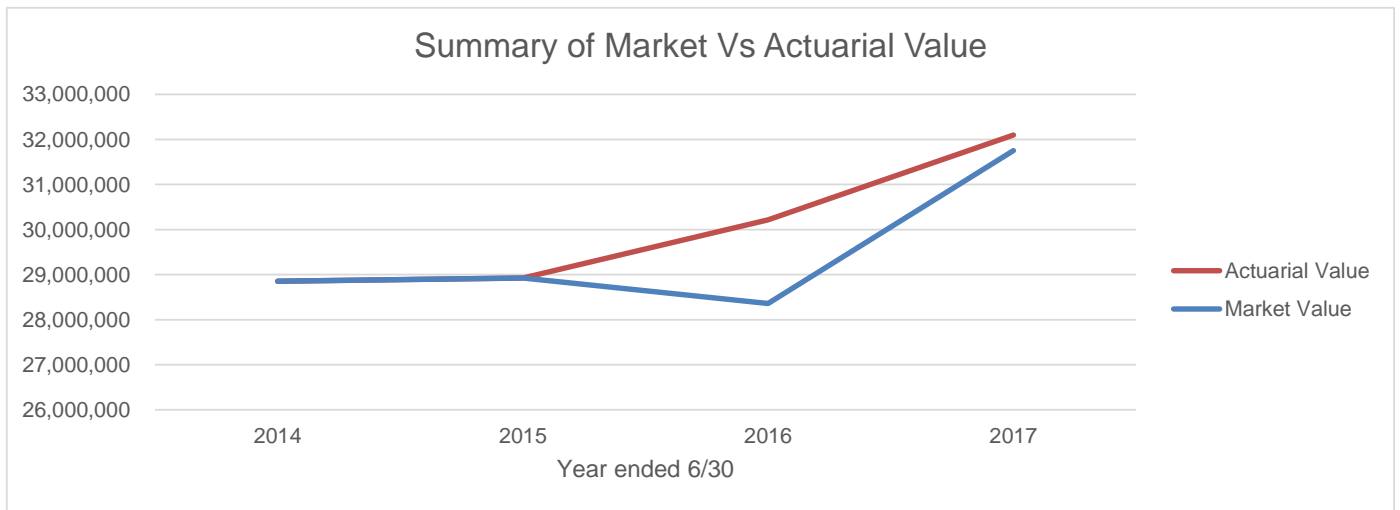
ALLOCATION OF ACTUARIAL VALUE OF ASSETS BETWEEN PUBLIC SAFETY AND NON-PUBLIC SAFETY GROUPS

	<u>PUBLIC SAFETY</u>	<u>NON-PUBLIC SAFETY</u>	<u>TOTAL</u>
Actuarial Asset value at July 1, 2016 (excluding receivables):	22,372,129	7,844,307	30,216,436
Contributions less benefit payments and operating expenses:	(76,752)	(137,907)	(214,659)
Average Actuarial Value:	22,333,752	7,775,354	30,109,106
Assumed net investment income, at 7.25%:	1,619,197	563,713	2,182,910
Preliminary value of assets at the end of the year:	23,914,573	8,270,113	32,184,686
Asset fair market value at June 30, 2017 (excluding receivables):	23,601,759	8,151,463	31,753,222
Smoothing adjustment, 20%:	(62,563)	(23,730)	(86,293)
Actuarial Asset Value at June 30, 2017:	23,852,010	8,246,383	32,098,393
Contribution receivables:	0	0	0
Final Actuarial Value of Assets:	23,852,010	8,246,383	32,098,393
Approximate annual rate of return for the plan year (net of expenses):	6.97%	6.94%	6.96%
Actuarial Value of Assets as a percent of market value of assets:	101.06%	101.16%	101.09%

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2017**

SUMMARY OF PLAN ASSET EXPERIENCE DURING THE PLAN YEAR

Year Ended 06/30	Employer Contributions	Employee Contributions	Net Investment Return	Benefit Payments	Market Value of Assets	Actuarial Value of Assets
2014	623,552	310,119	4,043,122	(1,315,889)	28,852,033	N/A
2015	569,198	297,142	451,391	(1,247,876)	28,921,888	N/A
2016	765,860	305,476	(306,473)	(1,328,091)	28,358,661	30,216,436
2017	1,037,443	313,535	3,457,472	(1,413,887)	31,753,223	32,098,394



CITY OF SOUTH BURLINGTON
 RETIREMENT INCOME PLAN
 ACTUARIAL VALUATION AS OF
 JULY 1, 2017

DETERMINATION OF RECOMMENDED EMPLOYER CONTRIBUTION BASED ON ACTUARIAL VALUE OF ASSETS

<i>MINIMUM RECOMMENDED EMPLOYER CONTRIBUTION RANGE</i>	<u>PUBLIC SAFETY</u>	<u>NON-PUBLIC SAFETY</u>	<u>TOTAL</u>
<i>Minimum based on 10-Year Amortization of Unfunded Entry Age Accrued Liability:</i>			
1. Total Normal Cost:	743,244	223,467	966,711
2. Unfunded Entry Age Accrued Liability:	4,438,210	1,323,716	5,761,926
3. 10-Year Amortization of Unfunded Accrued Liability:	596,012	177,763	773,776
4. Interest to Expected Payment Date:	89,005	26,665	115,670
5. Minimum Total Recommended Contribution (1+2+3+4):	1,428,261	427,895	1,856,156
6. Expected Employee Contributions:	335,863	0	335,863
7. Employer Recommended Contribution (5-6):	1,092,398	427,895	1,520,293
8. Employer Contribution as Percentage Payroll:	21.1%	20.5%	20.9%

Minimum based on 20-Year Amortization of Unfunded Entry Age Accrued Liability:

1. Total Normal Cost:	743,244	223,467	966,711
2. Unfunded Entry Age Accrued Liability:	4,438,210	1,323,716	5,761,926
3. 20-Year Amortization of Unfunded Accrued Liability:	398,238	118,776	517,014
4. Interest to Expected Payment Date:	75,861	22,745	98,606
5. Minimum Total Recommended Contribution (1+2+3+4):	1,217,343	364,988	1,582,331
6. Expected Employee Contributions:	335,863	0	335,863
7. Employer Recommended Contribution (5-6):	881,480	364,988	1,246,468
8. Employer Contribution as Percentage Payroll:	17.1%	17.5%	17.2%

Unfunded Entry Age Accrued Liability (Fresh Start)

1. Entry Age Normal Accrued Liability at Valuation Date:	28,290,220	9,570,099	37,860,319
2. <u>Actuarial Asset Value</u> at Valuation Date:	23,852,010	8,246,383	32,098,393
3. Unfunded EAN Accrued Liability at Valuation Date (1-2):	4,438,210	1,323,716	5,761,926

Employer Contribution amounts are anticipated to be paid on or before June 1, 2018. Mandatory Employee Contributions are payable during the year, deducted from employee earnings and deposited regularly into the Trust.

CITY OF SOUTH BURLINGTON
 RETIREMENT INCOME PLAN
 ACTUARIAL VALUATION AS OF
 JULY 1, 2017

DETERMINATION OF RECOMMENDED EMPLOYER CONTRIBUTION BASED ON MARKET VALUE OF ASSETS

<i>MINIMUM RECOMMENDED EMPLOYER CONTRIBUTION RANGE</i>	<u>PUBLIC SAFETY</u>	<u>NON-PUBLIC SAFETY</u>	<u>TOTAL</u>
<i>Minimum based on 10-Year Amortization of Unfunded Entry Age Accrued Liability:</i>			
1. Total Normal Cost:	743,244	223,467	966,711
2. Unfunded Entry Age Accrued Liability:	4,688,460	1,418,634	6,107,094
3. 10-Year Amortization of Unfunded Accrued Liability:	629,619	190,510	820,129
4. Interest to Expected Payment Date:	91,238	27,512	118,750
5. Minimum Total Recommended Contribution (1+2+3+4):	1,464,101	441,489	1,905,590
6. Expected Employee Contributions:	335,863	0	335,863
7. Employer Recommended Contribution (5-6):	1,128,238	441,489	1,569,727
8. Employer Contribution as Percentage Payroll:	21.8%	21.1%	21.6%

Minimum based on 20-Year Amortization of Unfunded Entry Age Accrued Liability:

1. Total Normal Cost:	743,244	223,467	966,711
2. Unfunded Entry Age Accrued Liability:	4,688,460	1,418,634	6,107,094
3. 20-Year Amortization of Unfunded Accrued Liability:	420,693	127,293	547,986
4. Interest to Expected Payment Date:	77,353	23,311	100,664
5. Minimum Total Recommended Contribution (1+2+3+4):	1,241,290	374,071	1,615,361
6. Expected Employee Contributions:	335,863	0	335,863
7. Employer Recommended Contribution (5-6):	905,427	374,071	1,279,498
8. Employer Contribution as Percentage Payroll:	17.5%	17.9%	17.6%

Unfunded Entry Age Accrued Liability (Fresh Start)

1. Entry Age Normal Accrued Liability at Valuation Date:	28,290,220	9,570,099	37,860,319
2. <u>Market Asset Value</u> at Valuation Date:	23,601,759	8,151,463	31,753,222
3. Unfunded EAN Accrued Liability at Valuation Date (1-2):	4,688,461	1,418,636	6,107,097

Employer Contribution amounts are anticipated to be paid on or before June 1, 2018. Mandatory Employee Contributions are payable during the year, deducted from employee earnings and deposited regularly into the Trust.

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2017**

ACCUMULATED BENEFITS AND ASSETS

A. ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS AS OF VALUATION DATE:

	<i>PUBLIC SAFETY</i>	<i>NON-PUBLIC SAFETY</i>	<i>TOTAL</i>
Actuarial present value of vested accumulated Plan benefits			
Inactive Participants (Retirees, Term Vested):	12,153,914	4,740,333	16,894,247
Actively employed participants:	10,559,552	3,244,455	13,804,007
Total:	22,713,466	7,984,788	30,698,254
Actuarial present value of non-vested accumulated Plan benefits:	188,221	117,939	306,160
Actuarial present value of total accumulated Plan benefits:	22,901,687	8,102,727	31,004,414
Plan assets available to provide accumulated benefits:	23,601,759	8,151,463	31,753,222
Funded ratio based on market value:	103.1%	100.6%	102.4%
Actuarial present value of total accumulated Plan benefits:	22,901,687	8,102,727	31,004,414
Actuarial value of assets:	23,852,010	8,246,383	32,098,393
Funded ratio based on actuarial value:	104.1%	101.8%	103.5%

B. CHANGE IN ACCUMULATED BENEFITS FROM PRIOR VALUATION DATE TO CURRENT VALUATION DATE

Total present value of accumulated benefits at prior valuation date:	21,132,569	7,608,481	28,741,050
Benefits paid:	(1,009,058)	(404,829)	(1,413,887)
Passage of time (interest accrued):	1,495,533	536,940	2,032,473
Benefits accumulated due to service, retiree COLA's, combined with impact of change in assumptions	1,282,643	362,135	1,644,778
Total present value of accumulated benefits at current valuation date:	22,901,687	8,102,727	31,004,414

C. ACTUARIAL ASSUMPTIONS AND VALUATION DATE

Current actuarial valuation date:	July 1, 2017
Actuarial present value interest rate:	7.25%
Mortality table used in determining actuarial present values:	

RP-2014 Static Annuitant and Nonannuitant adjusted to 2006 with scale MP-2014 and then projected generationally with scale MP2017. Police and Fire use blue collar tables.

Changes in actuarial assumptions from prior valuation date:	Mortality change
	Discount Rate Change
Plan changes not reflected at prior valuation date:	None

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2017**

ACTUARIAL ASSUMPTIONS AND COST METHOD

ACTUARIAL VALUATION DATE:	July 1, 2017
VALUATION INTEREST (Pre and Post-retirement):	7.25%
COMPENSATION ANNUAL RATE OF INCREASE:	Public Safety: 5.00% Non-Public Safety: 4.00%
VALUATION COMPENSATION:	Public Safety: Base compensation plus overtime not to exceed 25% of base pay Non-Public Safety: Total compensation
Compensation paid during the plan year preceding the Valuation Date	
EMPLOYEE CONTRIBUTION RATE (Public Safety Only):	6.50%
ASSUMED RETIREMENT AGE:	Public Safety: Age 53 Non-Public Safety: Normal Retirement Age
MORTALITY (Pre and Post-retirement):	RP-2014 Static Annuitant and Nonannuitant adjusted to 2006 with scale MP-2014 and then projected generationally with scale MP2017 Police and Fire use blue collar base
EMPLOYEE TURNOVER:	Scale Crocker-Sarason T-3
IRC SECTION 401(a)(17) MAXIMUM COMPENSATION LIMIT:	\$270,000
IRC SECTION 415(b) MAXIMUM BENEFIT LIMIT:	\$215,000
ASSET VALUATION METHOD:	Actuarial Value and Fair Value of Assets

The actuarial value of assets is calculated as follows:

- (1) the actuarial value at the beginning of the year, plus contributions and expected investment earnings, less benefit payments; plus
- (2) 20% of the difference between the market value at the end of the year and the adjusted actuarial value in (1) above
- (3) Subject to corridor of 80-120% of the actual market value.

ACTUARIAL COST METHOD: Entry Age Normal

Under the Entry Age Normal Cost Method the Employer contribution is equal to Normal Cost plus amortization of Unfunded Entry Age Accrued Liability. Normal Cost is computed on an individual basis for all participants as follows:

1. Projected benefits of each individual included in an actuarial valuation are allocated on a level basis over the earnings of the individual between entry age and assumed exit. The portion of this actuarial present value allocated to a valuation year the normal cost.

Unfunded Entry Age Accrued Liability has been "fresh started" as of July 1, 2017 as the excess of Entry Age Accrued Liability over the Actuarial Value of Plan Assets. Unfunded Entry Age Accrued Liability is recommended to be amortized over a period of 10 years.

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2017**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - PUBLIC SAFETY EMPLOYEES

PLAN EFFECTIVE DATE: December 1, 1972

ELIGIBILITY: Immediate at Employment

EMPLOYEE CONTRIBUTION RATE: Mandatory 6.5% of Plan Compensation

NORMAL RETIREMENT AGE:

	<u>Retirement * on or After</u>	<u>Age</u>
	Prior to July 1, 2001	60
* or other termination of service	July 1, 2001	55
	July 1, 2005	54
	July 1, 2007	53
	July 1, 2009	52
	July 1, 2010	51
	July 1, 2011	50

BENEFIT FORMULA: 2.5% of average annual compensation per Year of Service with Police or Fire departments up to 25 years.

POST-RETIREMENT COLA AND SOCIAL SECURITY OFFSET FOR PARTICIPANTS RETIRING ON OR AFTER NORMAL RETIREMENT DATE:

Participants whom retire on or after Normal Retirement Date will receive an annual increase in their monthly benefit of 3% until Social Security benefits commence. Upon commencement of Social Security, the Plan benefit is reduced by a fraction of the Participant's Social Security Benefit based on the Participants Years of Service at retirement.	<u>Years of Service at later of 6/30/02 or Retirement</u>	<u>PIA Offset Percentage</u>
		25 or Less
	26	45%
	27	40%
	28	35%
	29	30%
	30 or more	25%

AVERAGE ANNUAL COMPENSATION Plan Compensation* is averaged over high three consecutive years of service. Compensation is annualized for years in which the Participant completes less than 2,000 Hours of Service, but at least 1,000 Hours of Service.

* Effective July 1, 2009, Plan Compensation includes overtime up to 25% of Base Pay.

NORMAL ANNUITY FORM: Life Annuity

ACCRUED BENEFIT DEFINITION: Unit Credit Accrual, based on Years of Service completed at determination date

EARLY RETIREMENT: Age 50, Accrued Benefit reduced 10% per year for benefit commencement prior to Normal Retirement Date

DISABILITY: Actuarial Equivalent of Accrued Benefit

PRE-RETIREMENT DEATH BENEFIT: Actuarial Equivalent of Accrued Benefit

VESTING: 7-Year Graded - 20% after 3 years, 20% per year thereafter, 100% after 7 years.

**CITY OF SOUTH BURLINGTON
RETIREMENT INCOME PLAN
ACTUARIAL VALUATION AS OF
JULY 1, 2017**

SUMMARY OF PRINCIPAL PLAN PROVISIONS - NON-PUBLIC SAFETY EMPLOYEES

<i>PLAN EFFECTIVE DATE:</i>	December 1, 1972
<i>ELIGIBILITY:</i>	Eligible Employees - 36 months of service, entry on July 1st of plan year in which service requirement met
<i>ELIGIBLE EMPLOYEES:</i>	Non-Public Safety Employees who meet age and service requirements <u>except the following classes of employee:</u> (1) Employees who are members of the Water Pollution Control Employees Association (WPC) who are hired on or after 1/1/11; and (2) Employees who are not members of either the WPC or the South Burlington City Hall & Public Works Employees' Association (SBCH&PW) unless such employee was a Participant in the Plan on 6/30/10.
<i>NORMAL RETIREMENT AGE:</i>	Attainment of Age 65
<i>BENEFIT FORMULA:</i>	1.75% of Average Compensation times Years of Service completed with City Departments other than Police or Fire (Non-Public Safety Departments)
<i>AVERAGE COMPENSATION</i>	Plan Compensation is averaged over high three consecutive years that produce highest average. Compensation is annualized for years in which the Participant completes less than 2,000 Hours of Service, but at least 1,000 Hours of Service.
<i>PLAN COMPENSATION</i>	SBCH&PW Members - effective 7/1/09, total compensation WPC Members - effective 7/1/07 total compensation, including scheduled and unscheduled overtime, on-call pager pay. For all other Non-Public Safety employees - Base pay
<i>NORMAL ANNUITY FORM:</i>	Life Annuity
<i>ACCRUED BENEFIT DEFINITION:</i>	Unit Credit Accrual, based on Years of Service completed at determination date
<i>EARLY RETIREMENT:</i>	Age 55, Accrued Benefit reduced by 1/15 per year for benefit commencement prior to 65
<i>DISABILITY:</i>	Actuarial Equivalent of Accrued Benefit
<i>PRE-RETIREMENT DEATH BENEFIT:</i>	Actuarial Equivalent of Accrued Benefit
<i>VESTING:</i>	7-Year Graded - 20% after 3 years, 20% per year thereafter, 100% after 7 years.