

CITY OF ST. PETE BEACH
FIREFIGHTERS' RETIREMENT SYSTEM

ACTUARIAL IMPACT STATEMENT #2
(MEMBERS USE EXCESS STATE MONIES RESERVE)

March 14, 2017

Attached hereto is a comparison of the impact on the Total Required Contribution (per Chapter 112, Florida Statutes), and the Required City Contributions, resulting from implementation of the following changes:

- 1.) The Normal Retirement Date for Members not eligible for Normal Retirement and who had less than 10 years of Credited Service on December 31, 2012 is changed to the earliest of A) Age 55 with 10 years of Credited Service, B) Age 52 with 25 years of Credited Service, or C) 30 years of Credited Service regardless of age.
- 2.) The benefit multiplier is increased to 3.4% per year of Credited Service, retroactive to January 1, 2013.
- 3.) The definition of Compensation is changed for Salary earned after January 1, 2013 to include total W-2 earnings, including up to 300 hours of overtime, but not including any lump sum payments of accrued sick or annual leave.
- 4.) The maximum benefit is increased from 75% of Average Final Compensation to 100%.
- 5.) Early retirement provisions are established for service on and after January 1, 2013, with eligibility at age 50 with 10 years of Credited Service and with an early retirement reduction of 3% per year prior to age 55.
- 6.) A 3.0% annual cost-of-living adjustment is added for service on and after January 1, 2013. It is commencing on the first October 1st following 7 complete years of receiving benefits.
- 7.) The member contribution rate has been increased to fund some of these benefit improvements listed.
- 8.) The Excess State Monies Reserve was used to help offset the increase in the plan's unfunded liability associated with the benefit changes the Members were funding. This effectively reduced the required Member Contribution Rate.

In conjunction with a member contribution rate increase to 4%, the City has agreed to pay for benefit changes 1, 2, 4, and 5, except for any increase in benefit multiplier above 2.25%. Any other benefit changes shown are funded through a further adjustment in member contribution rate such that the City's contribution requirement as a dollar amount is approximately the same as before any benefit changes funded by members.

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(MEMBERS USE EXCESS STATE MONIES RESERVE)

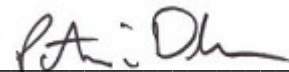
March 14, 2017
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The cost impact, determined as of October 1, 2015, as applicable to the fiscal year ending September 30, 2017, is as follows:

	<u>Current</u>	<u>Proposed</u>
Total Required Contribution	42.7%	53.3%
Member Contributions	3.0%	12.4%
City and State Required Contribution	39.7%	40.9%
State Contribution (est.) ¹	182,199 10.7%	182,199 9.5%
Balance from City	29.0%	31.4%

¹ State Contribution shown is amount received during fiscal 2015. Pursuant to an agreement between the City and Membership, all Chapter 175 premium tax revenues received by the City will be used to offset the City's funding requirement.

The changes presented herein are in compliance with Part VII, Chapter 112, Florida Statutes and Section 14, Article X of the State Constitution. The liabilities were computed based on the data used for the October 1, 2015 actuarial valuation utilizing the assumptions and methods stated in the October 1, 2015 actuarial valuation report. This impact statement and the October 1, 2015 valuation report are considered an integral part of the actuarial opinions. The undersigned is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein.



Patrick T. Donlan, ASA, EA, MAAA
Enrolled Actuary #14-6595

STATEMENT OF PLAN ADMINISTRATOR

The prepared information presented herein reflects the estimated cost of the proposed improvement.

Chairman, Board of Trustees

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	All Benefit Changes <u>10/1/2015</u>	City-Funded Benefit Changes <u>10/1/2015</u>	Current Benefits <u>10/1/2015</u>
A. Participant Data			
Number Included			
Actives	30	30	30
Service Retirees	19	19	19
DROP Retirees	0	0	0
Beneficiaries	2	2	2
Disability Retirees	3	3	3
Terminated Vested	<u>4</u>	<u>4</u>	<u>4</u>
Total	58	58	58
Total Annual Payroll	\$1,921,389	\$1,700,362	\$1,700,362
Payroll Under Assumed Ret. Age	1,921,389	1,700,362	1,700,362
Annual Rate of Payments to:			
Service Retirees	838,722	838,722	838,722
DROP Retirees	0	0	0
Beneficiaries	87,254	87,254	87,254
Disability Retirees	46,449	46,449	46,449
Terminated Vested	32,516	32,516	32,516
B. Assets			
Actuarial Value	11,137,714	11,137,714	11,137,714
Market Value	10,621,034	10,621,034	10,621,034
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	6,533,658	4,983,940	3,766,888
Disability Benefits	82,530	67,610	72,018
Death Benefits	47,179	37,835	34,492
Vested Benefits	855,062	704,148	619,141
Refund of Contributions	163,110	71,405	62,632
Service Retirees	11,363,891	11,363,891	11,363,891
DROP Retirees	0	0	0
Beneficiaries	266,855	266,855	266,855
Disability Retirees	469,722	469,722	469,722
Terminated Vested	166,930	166,930	166,930
Excess State Monies Reserve	<u>0</u>	<u>251,482</u>	<u>251,482</u>
Total	19,948,937	18,383,818	17,074,051

C. Liabilities - (Continued)	All Benefit Changes <u>10/1/2015</u>	City-Funded Benefit Changes <u>10/1/2015</u>	Current Benefits <u>10/1/2015</u>
Present Value of Future Salaries	11,554,840	10,179,113	10,685,032
Present Value of Future Member Contributions	1,432,800	407,165	320,551
Normal Cost (Retirement)	215,367	150,297	96,014
Normal Cost (Disability)	6,529	5,711	6,067
Normal Cost (Death)	2,368	1,827	1,734
Normal Cost (Vesting)	115,968	100,327	92,632
Normal Cost (Refunds)	<u>27,803</u>	<u>12,514</u>	<u>11,033</u>
Total Normal Cost	368,035	270,676	207,480
Present Value of Future Normal Costs	2,004,910	1,381,929	923,280
Accrued Liability (Retirement)	5,333,770	4,229,096	3,421,911
Accrued Liability (Disability)	45,746	36,651	35,701
Accrued Liability (Death)	34,005	28,356	24,786
Accrued Liability (Vesting)	228,444	173,373	135,708
Accrued Liability (Refunds)	34,664	15,533	13,785
Accrued Liability (Inactives)	12,267,398	12,267,398	12,267,398
Excess State Monies Reserve	<u>0</u>	<u>251,482</u>	<u>251,482</u>
Total Actuarial Accrued Liability	17,944,027	17,001,889	16,150,771
Unfunded Actuarial Accrued Liability (UAAL)	6,806,313	5,864,175	5,013,057
Funded Ratio (AVA / AL)	62.1%	65.5%	69.0%
D. Actuarial Present Value of Accrued Benefits			
Vested Accrued Benefits			
Inactives	12,267,398	12,267,398	12,267,398
Actives	2,559,221	2,342,217	2,418,273
Member Contributions	<u>1,167,369</u>	<u>1,167,369</u>	<u>1,167,369</u>
Total	15,993,988	15,776,984	15,853,040
Non-vested Accrued Benefits	<u>320,435</u>	<u>234,442</u>	<u>224,643</u>
Total Present Value Accrued Benefits	16,314,423	16,011,426	16,077,683
Funded Ratio (MVA / PVAB)	65.1%	66.3%	66.1%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	236,740		
Assumption Changes	0		
New Accrued Benefits	0		
Benefits Paid	0		
Interest	0		
Other	<u>0</u>		
Total	236,740		

	All Benefit Changes	City-Funded Benefit Changes	Current Benefits
Valuation Date	10/1/2015	10/1/2015	10/1/2015
Applicable to Fiscal Year Ending	<u>9/30/2017</u>	<u>9/30/2017</u>	<u>9/30/2017</u>
E. Pension Cost			
Normal Cost (with interest)			
% of Total Annual Payroll ¹	19.9	16.5	12.7
Administrative Expenses (with interest)			
% of Total Annual Payroll ¹	1.1	1.2	1.2
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2015, with interest)			
% of Total Annual Payroll ¹	32.3	32.5	28.8
Total Required Contribution			
% of Total Annual Payroll ¹	53.3	50.2	42.7
Expected Member Contributions			
% of Total Annual Payroll ¹	12.4	4.0	3.0
Expected City & State Contribution			
% of Total Annual Payroll ¹	40.9	46.2	39.7

¹ Contributions developed as of 10/1/2015 are expressed as a percentage of total annual payroll at 10/1/2015 of \$1,921,389 in the lefthand column and as a percentage of \$1,700,362 in the center and righthand columns.

ACTUARIAL ASSUMPTIONS AND METHODS

<u>Mortality Rates</u>	RP 2000 Combined Healthy (Sex Distinct). Disabled lives are set forward 5 years. We feel this assumption sufficiently accommodates mortality improvements.
<u>Interest Rate</u>	7.75% per year compounded annually, net of investment related expenses. This is supported by the target asset class allocation of the trust and the expected long-term return by asset class.
<u>Termination Rates</u>	See Tables below (1305). This is based on the results of an actuarial experience study issued October 20, 2008.
<u>Disability Rates</u>	See Tables below (1201). This is based on the results of an actuarial experience study issued October 20, 2008.
<u>Retirement Age</u>	<p><u>For Members eligible for Normal Retirement on January 1, 2013 or hired before January 1, 2003:</u> Earlier of age 56 or the completion of 26 years of service. Also, any member who has reached Normal Retirement Age is assumed to continue employment for one additional year. This is based on the results of an actuarial experience study issued October 20, 2008.</p> <p><u>For all other Members:</u> Earlier of age 60 with 10 years of service or the completion of 30 years of service. Also, any member who has reached Normal Retirement Age is assumed to continue employment for one additional year. This is based on the results of an actuarial experience study issued October 20, 2008.</p>
<u>Early Retirement</u>	<p><u>For Members eligible for Normal Retirement on January 1, 2013:</u> Commencing at the member's eligibility for Early Retirement, members are assumed to retire with an immediate, subsidized benefit at the rate of 5.00% per year. This is based on the results of an actuarial experience study issued October 20, 2008.</p> <p><u>For all other Members:</u> None.</p>
<u>Salary Increases</u>	4.50% per year up to the assumed retirement age; see table below. This is reasonable compared with other Fire plans.
<u>Cost-of-Living Adjustment</u>	3.00% per year commencing 7 years after retirement. No COLA for benefits accrued on and after January 1, 2013, based on the plan provisions.

Payroll Growth

Up to 1.38% per year.

Administrative Expenses

\$19,804 annually.

Funding Method

Entry Age Normal Actuarial Cost Method.

Actuarial Asset Method

Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric four-year average Market Value return (net of fees). It is possible that over time this technique will produce an insignificant bias above or below Market Value of Assets.

<u>Age</u>	<u>% Terminating During the Year</u>	<u>% Becoming Disabled During the Year</u>	<u>Current Salary as % of Salary at age 55</u>
20	17.2%	0.03%	21.43%
30	15.0	0.04	33.27
40	8.2	0.07	51.67
50	1.7	0.18	80.25

VALUATION NOTES

Total Annual Payroll is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

“Future Service” Piece
Date

At least 10 Years of Credited Service on December 31, 2012: Earlier of 1) Age 55, or 2) the completion of 25 years of Credited Service, regardless of Age.

Less than 10 years of Credited Service on December 31, 2012: Earlier of 1) Age 60, or 2) the completion of 30 years of Credited Service, regardless of Age.

Benefit

1.25% of Average Final Compensation times Credited Service.

Form of Benefit

Ten Year Certain and Life Annuity (options available).

Maximum Benefit

The maximum combined benefit is 75% of Average Final Compensation. If a Member’s accrued benefit as of January 1, 2013 is greater than or equal to 75% of Average Final Compensation, the benefit percentage may not be reduced.

EARLY RETIREMENT

“Frozen” Piece
Date

Earlier of age 50 and 10 years of Credited Service or the completion of 20 years of Credited Service, regardless of age.

Benefit Amount

Accrued benefit, reduced 3.00% for each year commencement of benefits precedes Normal Retirement Date.

“Future Service” Piece

None.

COST OF LIVING INCREASES

“Frozen” Piece

Retirees receive a 3.00% per year cost-of-living adjustment commencing 7 years after retirement.

“Future Service” Piece

None.

VESTING

Schedule

100% after 10 years of Credited Service (“frozen” piece uses old vesting schedule).

Benefit Amount

Member will receive the vested portion of his (her) accrued benefit payable at the otherwise Normal Retirement Date.

DISABILITY

Eligibility	Total and permanent after 10 years of Credited Service (non-service incurred) or from date of hire (service incurred).
Waiting Period	Board approval.
Exclusions	Disability resulting from use of drugs, illegal participation in riots, service in the military, etc.
Benefit	Benefit accrued to date of disability but not less than 42% of AFC if service incurred.
Duration	Payable for life with 10 years certain, or until recovery (as determined by the Board). Optional forms of payment available.

DEATH BENEFITS

Pre-Retirement	If vested, the value of the accrued benefit is payable on a monthly basis to the beneficiary for 10 years. If not vested, member contributions are refunded.
Post-Retirement	Benefits payable to beneficiary in accordance with option selected at retirement.

DEFERRED RETIREMENT OPTION PLAN

Eligibility	Only those Members who were Age 55 or had completed 25 years of Credited Service on December 31, 2012. There is no DROP for other Members.
Participation	Not to exceed 60 months.
Rate of Return	At the Member's election: (1) 7.50% annual rate, or (2) actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs), credited each fiscal quarter.
Form of Distribution	Cash lump sum (options available) at termination of employment.