

CITY OF BOYNTON BEACH MUNICIPAL FIREFIGHTERS' PENSION TRUST FUND

Chapter 112.664, F.S. Compliance Report In Connection with the October 1, 2015 Funding Actuarial Valuation Report And the Plan's Financial Reporting for the Year Ending September 30, 2015 **GRS**

May 31, 2016

Board of Trustees City of Boynton Beach Municipal Firefighters Pension Fund Boynton Beach, Florida

Dear Board Members:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the City of Boynton Beach Municipal Firefighters Pension Fund (System) to prepare a disclosure report to satisfy the requirements set forth in Ch. 112.664, F.S. and as further required pursuant to Ch. 60T-1.0035, F.A.C.

This report was prepared at the request of the Board and is intended for use by the Retirement Board and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board.

The purpose of the report is to provide the required information specified in Ch. 112.664, F.S. as well as supplement this information with additional exhibits. This report should not be relied on for any purpose other than the purpose described above.

The findings in this report are based on data or other information through September 30, 2015. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of this engagement does not include an analysis of the potential range of such measurements.

This report was based upon information furnished by the City and the Board concerning Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the City.

Except as otherwise indicated as required for the disclosures contained herein, this report was prepared using certain assumptions selected by the Board as described in our October 1, 2015 actuarial valuation report. This report is also based on the Plan Provisions, census data, and financial information as summarized in our October 1, 2015 actuarial valuation report. Please refer to the October 1, 2015 actuarial valuation report, dated March 31, 2016, for summaries and descriptions of this information.

The use of an investment return assumption that is 2% higher than the investment return assumption used to determine the funding requirements does not represent an estimate of future Plan experience nor does it reflect an observation of future return estimates inherent in financial market data. The use of this investment return assumption is provided as a counterpart to the Chapter 112.664, Florida Statutes requirement to utilize an investment return assumption that is 2% lower than the assumption used to determine the funding requirements. The inclusion of the additional exhibits showing the effect of using

a 2% higher investment return assumption shows a more complete assessment of the range of possible results as opposed to showing a one-sided range as required by Florida Statutes.

Peter N. Strong and Jeffrey Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1) F.S., the actuarial disclosures required under this section were prepared and complete by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, meet the requirements of Section 112.664(1), F.S. and Section 60T-1.0035, F.A.C.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

By

Peter N. Strong, FSA, MAAA, FC. Enrolled Actuary No. 14-6975
Senior Consultant & Actuary

Bv

Jeffrey Amrose, MAAA, FCA Enrolled Actuary No. 14-6599 Senior Consultant & Actuary

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CH. 112.664, Florida Statutes RESULTS

Schedule of Changes in the Employers' Net Pension Liability Using Financial Reporting Assumptions per GASB Statement No. 67

Fiscal year ending September 30,		2015
1. Total pension liability		
a. Service Cost	\$	2,988,536
b. Interest		8,955,215
c. Benefit Changes		-
d. Difference between actual & expected experience & Other		1,107,182
e. Assumption Changes		1,809,581
f. Benefit Payments		(4,304,149)
g. Contribution Refunds		(4,622)
h. Net Change in Total Pension Liability		10,551,743
i. Total Pension Liability - Beginning		116,027,923
j. Total Pension Liability - Ending	\$	126,579,666
2. Plan Fiduciary Net Position		
a. Contributions - Employer (From City)	\$	3,930,996
b. Contributions - Employer (From State)		963,573
c. Contributions - Member		1,251,530
d. Net Investment Income		282,853
e. Benefit Payments		(4,304,149)
f. Contribution Refunds		(4,622)
g. Administrative Expense		(132,439)
h. Other		139,860
i. Net Change in Plan Fiduciary Net Position		2,127,602
j. Plan Fiduciary Net Position - Beginning		78,279,091
k. Plan Fiduciary Net Position - Ending	\$	80,406,693
3. Net Pension Liability / (Asset)		46,172,973
Certain Key Assumptions		
Valuation Date		10/01/2014
Measurement Date		09/30/2015
Investment Return Assumption		7.50%
Mortality Table	1983	Group Annuity
		Mortality Table

Schedule of Changes in the Employers' Net Pension Liability Using Assumptions required under 112.664(1)(a), F.S.

1. Total pension liability a. Service Cost \$ 3,337,443 b. Interest 9,443,417 c. Benefit Changes - d. Difference between actual & expected experience & Other 99,111 e. Assumption Changes - f. Benefit Payments (4,304,149)	Fiscal year ending September 30,		2015
b. Interest 9,443,417 c. Benefit Changes - d. Difference between actual & expected experience & Other e. Assumption Changes - f. Benefit Payments (4,304,149)	1. Total pension liability		
c. Benefit Changes d. Difference between actual & expected experience & Other e. Assumption Changes f. Benefit Payments - (4,304,149)	a. Service Cost	\$	3,337,443
d. Difference between actual & expected experience & Other e. Assumption Changes f. Benefit Payments 399,111 (4,304,149)	b. Interest		9,443,417
e. Assumption Changes f. Benefit Payments (4,304,149)	c. Benefit Changes		-
f. Benefit Payments (4,304,149)	d. Difference between actual & expected experience & Other		399,111
•	e. Assumption Changes		-
G - T - T - D - C - T	f. Benefit Payments		(4,304,149)
g. Contribution Refunds (4,622)	g. Contribution Refunds		(4,622)
h. Net Change in Total Pension Liability 8,871,200	h. Net Change in Total Pension Liability		8,871,200
i. Total Pension Liability - Beginning 124,529,609	i. Total Pension Liability - Beginning		124,529,609
j. Total Pension Liability - Ending \$ 133,400,809	j. Total Pension Liability - Ending	\$	133,400,809
2. Plan Fiduciary Net Position	2. Plan Fiduciary Net Position		
a. Contributions - Employer (From City) \$ 3,930,996	-	\$	3 930 996
b. Contributions - Employer (From State) 963,573		Ψ	
c. Contributions - Member 1,251,530			·
d. Net Investment Income 282,853			
e. Benefit Payments (4,304,149)			•
f. Contribution Refunds (4,622)	•		
g. Administrative Expense (132,439)			, , , , ,
h. Other 139,860	•		
i. Net Change in Plan Fiduciary Net Position 2,127,602			
j. Plan Fiduciary Net Position - Beginning 78,279,091	•		
k. Plan Fiduciary Net Position - Ending \$ 80,406,693		\$	
	·		,,
3. Net Pension Liability / (Asset) 52,994,116	3. Net Pension Liability / (Asset)		52,994,116
Certain Key Assumptions	Certain Key Assumptions		
Valuation Date 10/01/2014	Valuation Date		10/01/2014
Measurement Date 09/30/2015	Measurement Date		09/30/2015
Investment Return Assumption 7.50%	Investment Return Assumption		7.50%
Mortality Table RP-2000 fully generational	Mortality Table	RP-2000 f	ully generational
using Scale AA			using Scale AA

Schedule of Changes in the Employers' Net Pension Liability Using Assumptions required under 112.664(1)(b), F.S.

Fiscal year ending September 30,		2015
1. Total pension liability		
a. Service Cost	\$	5,282,632
b. Interest		8,840,260
c. Benefit Changes		-
d. Difference between actual & expected experience & Other		399,111
e. Assumption Changes		-
f. Benefit Payments		(4,304,149)
g. Contribution Refunds		(4,622)
h. Net Change in Total Pension Liability		10,213,232
i. Total Pension Liability - Beginning		157,404,193
j. Total Pension Liability - Ending	\$	167,617,425
2. Plan Fiduciary Net Position		
a. Contributions - Employer (From City)	\$	3,930,996
b. Contributions - Employer (From State)	Ψ	963,573
c. Contributions - Member		1,251,530
d. Net Investment Income		282,853
e. Benefit Payments		(4,304,149)
f. Contribution Refunds		(4,622)
g. Administrative Expense		(132,439)
h. Other		139,860
i. Net Change in Plan Fiduciary Net Position		2,127,602
j. Plan Fiduciary Net Position - Beginning		78,279,091
k. Plan Fiduciary Net Position - Ending	\$	80,406,693
3. Net Pension Liability / (Asset)		87,210,732
Certain Key Assumptions		
Valuation Date		10/01/2014
Measurement Date		09/30/2015
Investment Return Assumption		5.50%
Mortality Table	RP-2000 f	ully generational
		using Scale AA

Schedule of Changes in the Employers' Net Pension Liability Using Assumptions under 112.664(1)(b), F.S. except 2% higher investment return assumption

Fiscal year ending September 30,		2015
1. Total pension liability		_
a. Service Cost	\$	2,192,310
b. Interest		9,741,779
c. Benefit Changes		-
d. Difference between actual & expected experience & Other		399,111
e. Assumption Changes		-
f. Benefit Payments		(4,304,149)
g. Contribution Refunds		(4,622)
h. Net Change in Total Pension Liability		8,024,429
i. Total Pension Liability - Beginning		102,307,558
j. Total Pension Liability - Ending	\$	110,331,987
		_
2. Plan Fiduciary Net Position		
a. Contributions - Employer (From City)	\$	3,930,996
b. Contributions - Employer (From State)		963,573
c. Contributions - Member		1,251,530
d. Net Investment Income		282,853
e. Benefit Payments		(4,304,149)
f. Contribution Refunds		(4,622)
g. Administrative Expense		(132,439)
h. Other		139,860
i. Net Change in Plan Fiduciary Net Position		2,127,602
j. Plan Fiduciary Net Position - Beginning		78,279,091
k. Plan Fiduciary Net Position - Ending	\$	80,406,693
3. Net Pension Liability / (Asset)		29,925,294
Certain Key Assumptions		
Valuation Date		10/01/2014
Measurement Date		09/30/2015
Investment Return Assumption		9.50%
Mortality Table	RP-2000 fu	ılly generational
	1	using Scale AA
g. Contribution Refunds h. Net Change in Total Pension Liability i. Total Pension Liability - Beginning j. Total Pension Liability - Ending 2. Plan Fiduciary Net Position a. Contributions - Employer (From City) b. Contributions - Employer (From State) c. Contributions - Member d. Net Investment Income e. Benefit Payments f. Contribution Refunds g. Administrative Expense h. Other i. Net Change in Plan Fiduciary Net Position j. Plan Fiduciary Net Position - Beginning k. Plan Fiduciary Net Position - Ending 3. Net Pension Liability / (Asset) Certain Key Assumptions Valuation Date Measurement Date Investment Return Assumption	\$ RP-2000 ft	(4,622) 8,024,429 102,307,558 110,331,987 3,930,996 963,573 1,251,530 282,853 (4,304,149) (4,622) (132,439) 139,860 2,127,602 78,279,091 80,406,693 29,925,294 10/01/2014 09/30/2015 9.50% filly generational

Asset and Benefit Payment Projection Not Reflecting Any Contributions from the Employer, State or Employee Using Assumptions from the Plan's Latest Actuarial Valuation

	Market Value of	Expected Investment	Projected Benefit	Market Value of
FYE	Assets (BOY)	Return	Payments	Assets (EOY)
2016	65,450,324	4,700,123	5,564,041	64,586,406
2017	64,586,406	4,625,733	5,819,923	63,392,216
2018	63,392,216	4,520,337	6,242,110	61,670,443
2019	61,670,443	4,377,846	6,598,319	59,449,970
2020	59,449,970	4,201,573	6,857,998	56,793,545
2021	56,793,545	3,987,133	7,263,547	53,517,131
2022	53,517,131	3,734,268	7,453,791	49,797,608
2023	49,797,608	3,442,287	7,800,906	45,438,988
2024	45,438,988	3,108,528	7,983,885	40,563,632
2025	40,563,632	2,730,668	8,309,445	34,984,855
2026	34,984,855	2,304,561	8,514,759	28,774,657
2027	28,774,657	1,830,676	8,731,278	21,874,055
2028	21,874,055	1,308,700	8,849,448	14,333,307
2029	14,333,307	741,715	8,887,537	6,187,485
2030	6,187,485	127,896	8,964,403	-
2031	-	-	8,957,504	-
2032	-	-	8,946,796	-
2033	-	-	8,897,896	-
2034	-	-	8,883,525	-
2035	-	-	8,826,014	-
2036	-	-	8,741,017	-
2037	-	-	8,629,129	-
2038	-	-	8,503,217	-
2039	-	-	8,364,498	-
2040	-	-	8,205,735	-
2041	-	-	8,033,117	-

Number of years for which current market value of assets is adequate to sustain the payment of expected retirement benefits, <u>reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions</u>:

14.67

Certain Key Assumptions

Valuation Investment Return Assumption Valuation Mortality Table

7.50%

1983 Group Annuity Mortality Table



Asset and Benefit Payment Projection Not Reflecting Any Contributions from the Employer, State or Employee Using Assumptions required under 112.664(1)(a), F.S.

	Market Value of	Expected Investment	Projected Benefit	Market Value of
FYE	Assets (BOY)	Return	Payments	Assets (EOY)
2016	65,450,324	4,700,057	5,565,797	64,584,584
2017	64,584,584	4,625,185	5,830,911	63,378,858
2018	63,378,858	4,518,526	6,263,689	61,633,695
2019	61,633,695	4,373,783	6,633,180	59,374,297
2020	59,374,297	4,194,026	6,907,898	56,660,425
2021	56,660,425	3,974,472	7,334,943	53,299,954
2022	53,299,954	3,714,458	7,547,689	49,466,723
2023	49,466,723	3,412,935	7,921,845	44,957,813
2024	44,957,813	3,066,972	8,129,715	39,895,070
2025	39,895,070	2,674,044	8,482,310	34,086,804
2026	34,086,804	2,229,559	8,718,707	27,597,655
2027	27,597,655	1,733,135	8,978,383	20,352,407
2028	20,352,407	1,183,589	9,142,450	12,393,546
2029	12,393,546	583,452	9,228,359	3,748,639
2030	3,748,639	-	9,353,651	-
2031	-	-	9,405,572	-
2032	-	-	9,450,361	-
2033	-	-	9,467,450	-
2034	-	-	9,515,759	-
2035	-	-	9,530,117	-
2036	-	-	9,517,644	-
2037	-	-	9,484,885	-
2038	-	-	9,438,090	-
2039	-	-	9,378,309	-
2040	-	-	9,301,595	-
2041	-	-	9,209,380	-

Number of years for which current market value of assets is adequate to sustain the payment of expected retirement benefits, <u>reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions</u>:

14.42

Certain Key Assumptions

Valuation Investment Return Assumption Valuation Mortality Table

7.50%

RP-2000 fully generational using Scale AA



Asset and Benefit Payment Projection Not Reflecting Any Contributions from the Employer, State or Employee Using Assumptions required under 112.664(1)(b), F.S.

	Market Value of	Expected Investment	Projected Benefit	Market Value of
FYE	Assets (BOY)	Return	Payments	Assets (EOY)
2016	65,450,324	3,446,708	5,565,797	63,331,235
2017	63,331,235	3,322,868	5,830,911	60,823,192
2018	60,823,192	3,173,024	6,263,689	57,732,527
2019	57,732,527	2,992,877	6,633,180	54,092,224
2020	54,092,224	2,785,105	6,907,898	49,969,431
2021	49,969,431	2,546,608	7,334,943	45,181,096
2022	45,181,096	2,277,399	7,547,689	39,910,806
2023	39,910,806	1,977,244	7,921,845	33,966,204
2024	33,966,204	1,644,574	8,129,715	27,481,063
2025	27,481,063	1,278,195	8,482,310	20,276,948
2026	20,276,948	875,468	8,718,707	12,433,709
2027	12,433,709	436,948	8,978,383	3,892,275
2028	3,892,275	-	9,142,450	-
2029	-	-	9,228,359	-
2030	-	-	9,353,651	-
2031	-	-	9,405,572	-
2032	-	-	9,450,361	-
2033	-	-	9,467,450	-
2034	-	-	9,515,759	-
2035	-	-	9,530,117	-
2036	-	-	9,517,644	-
2037	-	-	9,484,885	-
2038	-	-	9,438,090	-
2039	-	-	9,378,309	-
2040	-	-	9,301,595	-
2041	-	-	9,209,380	-

Number of years for which current market value of assets is adequate to sustain the payment of expected retirement benefits, <u>reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions</u>:

12.42

Certain Key Assumptions

Valuation Investment Return Assumption Valuation Mortality Table

5.50%

RP-2000 fully generational using Scale AA



Asset and Benefit Payment Projection Not Reflecting Any Contributions from the Employer, State or Employee Using Assumptions under 112.664(1)(b), F.S. except 2% higher investment return assumption

	Market Value of	Expected Investment	Projected Benefit	Market Value of
FYE	Assets (BOY)	Return	Payments	Assets (EOY)
2016	65,450,324	5,953,405	5,565,797	65,837,932
2017	65,837,932	5,977,635	5,830,911	65,984,657
2018	65,984,657	5,971,017	6,263,689	65,691,985
2019	65,691,985	5,925,663	6,633,180	64,984,467
2020	64,984,467	5,845,399	6,907,898	63,921,969
2021	63,921,969	5,724,177	7,334,943	62,311,203
2022	62,311,203	5,561,049	7,547,689	60,324,563
2023	60,324,563	5,354,546	7,921,845	57,757,264
2024	57,757,264	5,100,779	8,129,715	54,728,327
2025	54,728,327	4,796,281	8,482,310	51,042,299
2026	51,042,299	4,434,880	8,718,707	46,758,472
2027	46,758,472	4,015,582	8,978,383	41,795,670
2028	41,795,670	3,536,322	9,142,450	36,189,542
2029	36,189,542	2,999,659	9,228,359	29,960,843
2030	29,960,843	2,401,982	9,353,651	23,009,174
2031	23,009,174	1,739,107	9,405,572	15,342,708
2032	15,342,708	1,008,665	9,450,361	6,901,013
2033	6,901,013	205,892	9,467,450	-
2034	-	-	9,515,759	-
2035	-	-	9,530,117	-
2036	-	-	9,517,644	-
2037	-	-	9,484,885	-
2038	-	-	9,438,090	-
2039	-	-	9,378,309	-
2040	-	-	9,301,595	-
2041	-	-	9,209,380	-

Number of years for which current market value of assets is adequate to sustain the payment of expected retirement benefits, <u>reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions</u>:

17.75

Certain Key Assumptions

Valuation Investment Return Assumption Valuation Mortality Table

9.50%

RP-2000 fully generational using Scale AA



ACTUARIALLY DETERMINED CONTRIBUTION				
	Plan's Latest Actuarial Valuation	112.664(1)(a) F.S. Assumptions	112.664(1)(b) F.S. Assumptions	112.664(1)(b) F.S. except 2% higher investment return assumption
A. Valuation Date	October 1, 2015	October 1, 2015	October 1, 2015	October 1, 2015
B. Actuarially Determined Contribution (ADC) to Be Paid During Fiscal Year Ending	9/30/2017	9/30/2017	9/30/2017	9/30/2017
C. Assumed Date(s) of Employer Contributions	10/1/2016	10/1/2016	10/1/2016	10/1/2016
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 2,912,970	\$ 3,258,302	\$ 4,124,973	\$ 2,347,672
E. Employer Normal Cost	2,105,539	2,377,302	4,399,820	1,186,708
F. Employer ADC if Paid on Valuation Date: D + E	5,018,509	5,635,604	8,524,793	3,534,380
G. Employer ADC Adjusted for Frequency of Payments	5,018,509	5,635,604	8,524,793	3,534,380
H. Employer ADC Adjusted for Frequency of Payments as % of Covered Payroll	49.10 %	55.14 %	83.40 %	34.58 %
I. Covered Payroll for Contribution Year	10,337,101 *	10,337,101 *	10,337,101 *	10,337,101 *
J. Covered Payroll per Valuation	10,221,317	10,221,317	10,221,317	10,221,317
K. Employer ADC for Contribution Year: H x J, but not less than G	5,075,517	5,699,877	8,621,142	3,574,570
L. Estimated State Revenue in Contribution Year	781,954	781,954	781,954	781,954
M.Net Employer ADC in Contribution Year	4,293,563	4,917,923	7,839,188	2,792,616
N. Net Employer ADC as % of Covered Payroll in Contribution Year: M ÷ (Max of I and J)	41.54 %	47.58 %	75.84 %	27.02 %
O. Expected Member Contribution	1,240,452	1,240,452	1,240,452	1,240,452
P. Total Contribution (Including Members) in Contribution Year	6,315,969	6,940,329	9,861,594	4,815,022
Q. Total Contribution as % of Covered Payroll in Contribution Year: P ÷ (Max of I and J)	61.10 %	67.14 %	95.40 %	46.58 %
R. Certain Key Assumptions Investment Return Assumption Mortality Table	7.50% 1983 Group Annuity Mortality Table	7.50% RP-2000 fully generational using Scale AA	5.50% RP-2000 fully generational using Scale AA	9.50% RP-2000 fully generational using Scale AA

^{*}Estimated payroll from Finance Department. Actual contributions should be no less than the listed percentage of payroll multiplied by actual covered payroll.

