

# CITY OF BOYNTON BEACH MUNICIPAL FIREFIGHTERS' PENSION TRUST FUND

Chapter 112.664, F.S. Compliance Report  
In Connection with the October 1, 2017 Funding  
Actuarial Valuation Report  
And the Plan's Financial Reporting for the Year  
Ending September 30, 2017







March 29, 2018

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, 2017. 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, 2017 actuarial valuation report. This report is also based on the Plan Provisions, census data, and financial information as summarized in our October 1, 2017 actuarial valuation report. Please refer to the October 1, 2017 actuarial valuation report, dated February 7, 2018, 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.

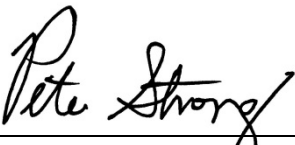
Peter N. Strong and Jeffrey Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

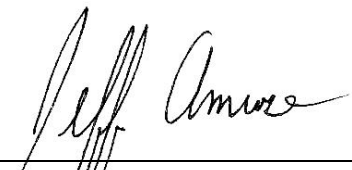
This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations 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 us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate, and in our 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   
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Enrolled Actuary No. 17-6975  
Senior Consultant & Actuary

By   
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## **CH. 112.664, FLORIDA STATUTES**

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### **RESULTS**

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

Fiscal year ending September 30,	<b>2017</b>
<b>1. Total pension liability</b>	
a. Service Cost	\$ 3,330,443
b. Interest	10,066,945
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	507,105
e. Assumption Changes	6,644,861
f. Benefit Payments	(5,456,760)
g. Contribution Refunds	(53,290)
<b>h. Net Change in Total Pension Liability</b>	15,039,304
<b>i. Total Pension Liability - Beginning</b>	133,731,356
<b>j. Total Pension Liability - Ending</b>	\$ 148,770,660
 <b>2. Plan Fiduciary Net Position</b>	
a. Contributions - Employer (From City)	\$ 4,293,563
b. Contributions - Employer (From State)	883,314
c. Contributions - Member	1,477,115
d. Net Investment Income	12,165,106
e. Benefit Payments	(5,456,760)
f. Contribution Refunds	(53,290)
g. Administrative Expense	(151,010)
h. Other	70,279
<b>i. Net Change in Plan Fiduciary Net Position</b>	13,228,317
<b>j. Plan Fiduciary Net Position - Beginning</b>	91,141,426
<b>k. Plan Fiduciary Net Position - Ending</b>	\$ 104,369,743
 <b>3. Net Pension Liability / (Asset)</b>	44,400,917
 <b>Certain Key Assumptions</b>	
Valuation Date	10/01/2016
Measurement Date	09/30/2017
Investment Return Assumption	7.50%
Mortality Table	FRS Mortality - Special Risk

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

Fiscal year ending September 30,	<b>2017</b>
<b>1. Total pension liability</b>	
a. Service Cost	\$ 3,330,443
b. Interest	10,066,945
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	507,105
e. Assumption Changes	6,644,861
f. Benefit Payments	(5,456,760)
g. Contribution Refunds	(53,290)
<b>h. Net Change in Total Pension Liability</b>	15,039,304
<b>i. Total Pension Liability - Beginning</b>	133,731,356
<b>j. Total Pension Liability - Ending</b>	\$ 148,770,660
<b>2. Plan Fiduciary Net Position</b>	
a. Contributions - Employer (From City)	\$ 4,293,563
b. Contributions - Employer (From State)	883,314
c. Contributions - Member	1,477,115
d. Net Investment Income	12,165,106
e. Benefit Payments	(5,456,760)
f. Contribution Refunds	(53,290)
g. Administrative Expense	(151,010)
h. Other	70,279
<b>i. Net Change in Plan Fiduciary Net Position</b>	13,228,317
<b>j. Plan Fiduciary Net Position - Beginning</b>	91,141,426
<b>k. Plan Fiduciary Net Position - Ending</b>	\$ 104,369,743
<b>3. Net Pension Liability / (Asset)</b>	44,400,917
<b>Certain Key Assumptions</b>	
Valuation Date	10/01/2016
Measurement Date	09/30/2017
Investment Return Assumption	7.50%
Mortality Table	FRS Mortality - Special Risk



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

Fiscal year ending September 30,	<u>2017</u>
<b>1. Total pension liability</b>	
a. Service Cost	\$ 5,594,826
b. Interest	9,872,704
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	(161,694)
e. Assumption Changes	-
f. Benefit Payments	(5,456,760)
g. Contribution Refunds	(53,290)
<b>h. Net Change in Total Pension Liability</b>	<u>9,795,786</u>
<b>i. Total Pension Liability - Beginning</b>	<u>176,744,760</u>
<b>j. Total Pension Liability - Ending</b>	<u>\$ 186,540,546</u>
<b>2. Plan Fiduciary Net Position</b>	
a. Contributions - Employer (From City)	\$ 4,293,563
b. Contributions - Employer (From State)	883,314
c. Contributions - Member	1,477,115
d. Net Investment Income	12,165,106
e. Benefit Payments	(5,456,760)
f. Contribution Refunds	(53,290)
g. Administrative Expense	(151,010)
h. Other	70,279
<b>i. Net Change in Plan Fiduciary Net Position</b>	<u>13,228,317</u>
<b>j. Plan Fiduciary Net Position - Beginning</b>	<u>91,141,426</u>
<b>k. Plan Fiduciary Net Position - Ending</b>	<u>\$ 104,369,743</u>
<b>3. Net Pension Liability / (Asset)</b>	82,170,803
<b>Certain Key Assumptions</b>	
Valuation Date	10/01/2016
Measurement Date	09/30/2017
Investment Return Assumption	5.50%
Mortality Table	FRS Mortality - Special Risk

**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,	<b>2017</b>
<b>1. Total pension liability</b>	
a. Service Cost	\$ 2,323,501
b. Interest	10,957,831
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	(161,694)
e. Assumption Changes	-
f. Benefit Payments	(5,456,760)
g. Contribution Refunds	(53,290)
<b>h. Net Change in Total Pension Liability</b>	7,609,588
<b>i. Total Pension Liability - Beginning</b>	115,857,965
<b>j. Total Pension Liability - Ending</b>	\$ 123,467,553
<b>2. Plan Fiduciary Net Position</b>	
a. Contributions - Employer (From City)	\$ 4,293,563
b. Contributions - Employer (From State)	883,314
c. Contributions - Member	1,477,115
d. Net Investment Income	12,165,106
e. Benefit Payments	(5,456,760)
f. Contribution Refunds	(53,290)
g. Administrative Expense	(151,010)
h. Other	70,279
<b>i. Net Change in Plan Fiduciary Net Position</b>	13,228,317
<b>j. Plan Fiduciary Net Position - Beginning</b>	91,141,426
<b>k. Plan Fiduciary Net Position - Ending</b>	\$ 104,369,743
<b>3. Net Pension Liability / (Asset)</b>	19,097,810
<b>Certain Key Assumptions</b>	
Valuation Date	10/01/2016
Measurement Date	09/30/2017
Investment Return Assumption	9.50%
Mortality Table	FRS Mortality - Special Risk

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

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2018	86,807,764	6,265,702	6,530,149	86,543,317
2019	86,543,317	6,231,694	6,908,130	85,866,881
2020	85,866,881	6,170,282	7,192,897	84,844,266
2021	84,844,266	6,075,065	7,686,801	83,232,530
2022	83,232,530	5,944,639	7,941,360	81,235,809
2023	81,235,809	5,778,037	8,390,637	78,623,209
2024	78,623,209	5,572,698	8,641,140	75,554,767
2025	75,554,767	5,326,420	9,071,679	71,809,508
2026	71,809,508	5,034,197	9,373,757	67,469,948
2027	67,469,948	4,695,049	9,738,586	62,426,411
2028	62,426,411	4,308,672	9,954,912	56,780,171
2029	56,780,171	3,881,032	10,066,165	50,595,038
2030	50,595,038	3,410,506	10,243,245	43,762,299
2031	43,762,299	2,895,911	10,300,293	36,357,917
2032	36,357,917	2,338,460	10,356,913	28,339,464
2033	28,339,464	1,736,404	10,374,816	19,701,052
2034	19,701,052	1,085,617	10,452,306	10,334,363
2035	10,334,363	382,045	10,480,858	235,550
2036	235,550	-	10,494,867	-
2037	-	-	10,482,240	-
2038	-	-	10,473,700	-
2039	-	-	10,448,245	-
2040	-	-	10,397,784	-
2041	-	-	10,335,636	-
2042	-	-	10,257,374	-
2043	-	-	10,165,519	-

Number of years for which current market value of assets is adequate to sustain the payment of expected retirement benefits, reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions: 18.00

**Certain Key Assumptions**

Valuation Investment Return Assumption	7.50%
Valuation Mortality Table	FRS Mortality - Special Risk

**Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of the Fund assets do not include contributions from the Employer, Employee or State, which is contrary to Florida Statutes and Plan provisions. For this reason, these projections should not be viewed as a representation of the amount of time the Fund can sustain benefit payments. Under the GASB standards which DO include contributions from the employer, employee and State, the Fund is expected to be able to sustain the benefit payment demands in the near-term and long-term future.**

**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.**

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2018	86,807,764	6,265,702	6,530,149	86,543,317
2019	86,543,317	6,231,694	6,908,130	85,866,881
2020	85,866,881	6,170,282	7,192,897	84,844,266
2021	84,844,266	6,075,065	7,686,801	83,232,530
2022	83,232,530	5,944,639	7,941,360	81,235,809
2023	81,235,809	5,778,037	8,390,637	78,623,209
2024	78,623,209	5,572,698	8,641,140	75,554,767
2025	75,554,767	5,326,420	9,071,679	71,809,508
2026	71,809,508	5,034,197	9,373,757	67,469,948
2027	67,469,948	4,695,049	9,738,586	62,426,411
2028	62,426,411	4,308,672	9,954,912	56,780,171
2029	56,780,171	3,881,032	10,066,165	50,595,038
2030	50,595,038	3,410,506	10,243,245	43,762,299
2031	43,762,299	2,895,911	10,300,293	36,357,917
2032	36,357,917	2,338,460	10,356,913	28,339,464
2033	28,339,464	1,736,404	10,374,816	19,701,052
2034	19,701,052	1,085,617	10,452,306	10,334,363
2035	10,334,363	382,045	10,480,858	235,550
2036	235,550	-	10,494,867	-
2037	-	-	10,482,240	-
2038	-	-	10,473,700	-
2039	-	-	10,448,245	-
2040	-	-	10,397,784	-
2041	-	-	10,335,636	-
2042	-	-	10,257,374	-
2043	-	-	10,165,519	-

Number of years for which current market value of assets is adequate to sustain the payment of expected retirement benefits, reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions: 18.00

**Certain Key Assumptions**

Valuation Investment Return Assumption	7.50%
Valuation Mortality Table	FRS Mortality - Special Risk

**Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of the Fund assets do not include contributions from the Employer, Employee or State, which is contrary to Florida Statutes and Plan provisions. For this reason, these projections should not be viewed as a representation of the amount of time the Fund can sustain benefit payments. Under the GASB standards which DO include contributions from the employer, employee and State, the Fund is expected to be able to sustain the benefit payment demands in the near-term and long-term future.**

**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.**

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2018	86,807,764	4,594,848	6,530,149	84,872,463
2019	84,872,463	4,478,012	6,908,130	82,442,345
2020	82,442,345	4,336,524	7,192,897	79,585,972
2021	79,585,972	4,165,841	7,686,801	76,065,012
2022	76,065,012	3,965,188	7,941,360	72,088,840
2023	72,088,840	3,734,144	8,390,637	67,432,347
2024	67,432,347	3,471,148	8,641,140	62,262,355
2025	62,262,355	3,174,958	9,071,679	56,365,634
2026	56,365,634	2,842,332	9,373,757	49,834,209
2027	49,834,209	2,473,070	9,738,586	42,568,693
2028	42,568,693	2,067,518	9,954,912	34,681,299
2029	34,681,299	1,630,652	10,066,165	26,245,786
2030	26,245,786	1,161,829	10,243,245	17,164,370
2031	17,164,370	660,782	10,300,293	7,524,859
2032	7,524,859	129,052	10,356,913	-
2033	-	-	10,374,816	-
2034	-	-	10,452,306	-
2035	-	-	10,480,858	-
2036	-	-	10,494,867	-
2037	-	-	10,482,240	-
2038	-	-	10,473,700	-
2039	-	-	10,448,245	-
2040	-	-	10,397,784	-
2041	-	-	10,335,636	-
2042	-	-	10,257,374	-
2043	-	-	10,165,519	-

Number of years for which current market value of assets is adequate to sustain the payment of expected retirement benefits, **reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions:** 14.67

**Certain Key Assumptions**

Valuation Investment Return Assumption	5.50%
Valuation Mortality Table	FRS Mortality - Special Risk

**Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of the Fund assets do not include contributions from the Employer, Employee or State, which is contrary to Florida Statutes and Plan provisions. For this reason, these projections should not be viewed as a representation of the amount of time the Fund can sustain benefit payments. Under the GASB standards which DO include contributions from the employer, employee and State, the Fund is expected to be able to sustain the benefit payment demands in the near-term and long-term future.**

**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**

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2018	86,807,764	7,936,556	6,530,149	88,214,171
2019	88,214,171	8,052,210	6,908,130	89,358,251
2020	89,358,251	8,147,371	7,192,897	90,312,725
2021	90,312,725	8,214,586	7,686,801	90,840,510
2022	90,840,510	8,252,634	7,941,360	91,151,784
2023	91,151,784	8,260,864	8,390,637	91,022,011
2024	91,022,011	8,236,637	8,641,140	90,617,508
2025	90,617,508	8,177,759	9,071,679	89,723,588
2026	89,723,588	8,078,487	9,373,757	88,428,318
2027	88,428,318	7,938,107	9,738,586	86,627,839
2028	86,627,839	7,756,786	9,954,912	84,429,713
2029	84,429,713	7,542,680	10,066,165	81,906,228
2030	81,906,228	7,294,538	10,243,245	78,957,521
2031	78,957,521	7,011,701	10,300,293	75,668,929
2032	75,668,929	6,696,595	10,356,913	72,008,611
2033	72,008,611	6,348,014	10,374,816	67,981,809
2034	67,981,809	5,961,787	10,452,306	63,491,290
2035	63,491,290	5,533,832	10,480,858	58,544,264
2036	58,544,264	5,063,199	10,494,867	53,112,596
2037	53,112,596	4,547,790	10,482,240	47,178,146
2038	47,178,146	3,984,423	10,473,700	40,688,869
2039	40,688,869	3,369,151	10,448,245	33,609,775
2040	33,609,775	2,699,034	10,397,784	25,911,025
2041	25,911,025	1,970,605	10,335,636	17,545,994
2042	17,545,994	1,179,644	10,257,374	8,468,264
2043	8,468,264	321,623	10,165,519	-

Number of years for which current market value of assets is adequate to sustain the payment of expected retirement benefits, reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions: 25.83

**Certain Key Assumptions**

Valuation Investment Return Assumption	9.50%
Valuation Mortality Table	FRS Mortality - Special Risk

**Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of the Fund assets do not include contributions from the Employer, Employee or State, which is contrary to Florida Statutes and Plan provisions. For this reason, these projections should not be viewed as a representation of the amount of time the Fund can sustain benefit payments. Under the GASB standards which DO include contributions from the employer, employee and State, the Fund is expected to be able to sustain the benefit payment demands in the near-term and long-term future.**

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, 2017	October 1, 2017	October 1, 2017	October 1, 2017
B. Actuarially Determined Contribution (ADC) to Be Paid During Fiscal Year Ending	9/30/2019	9/30/2019	9/30/2019	9/30/2019
C. Assumed Date(s) of Employer Contributions	10/1/2018	10/1/2018	10/1/2018	10/1/2018
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 3,732,868	\$ 3,732,868	\$ 5,089,316	\$ 2,379,729
E. Employer Normal Cost	2,519,728	2,519,728	4,714,168	1,241,571
F. Employer ADC if Paid on Valuation Date: D + E	6,252,596	6,252,596	9,803,484	3,621,300
G. Employer ADC Adjusted for Frequency of Payments	6,252,596	6,252,596	9,803,484	3,621,300
H. Employer ADC Adjusted for Frequency of Payments as % of Covered Payroll	55.42 %	55.42 %	86.89 %	32.10 %
I. Covered Payroll per Valuation	11,282,228	11,282,228	11,282,228	11,282,228
J. Assumed Rate of Increase in Covered Payroll to Contribution Year	2.51 %	2.51 %	2.51 %	2.51 %
K. Covered Payroll for Contribution Year	11,565,412	11,565,412	11,565,412	11,565,412
L. Employer ADC for Contribution Year: H x K	6,409,551	6,409,551	10,049,186	3,712,497
M. Estimated State Revenue in Contribution Year	781,954	781,954	781,954	781,954
N. Net Employer ADC in Contribution Year	5,627,597	5,627,597	9,267,232	2,930,543
O. Net Employer ADC as % of Covered Payroll in Contribution Year: N ÷ K	48.66 %	48.66 %	80.13 %	25.34 %
P. Expected Member Contribution	1,387,849	1,387,849	1,387,849	1,387,849
Q. Total Contribution (Including Members) in Contribution Year	7,797,400	7,797,400	11,437,035	5,100,346
R. Total Contribution as % of Covered Payroll in Contribution Year: Q ÷ K	67.42 %	67.42 %	98.89 %	44.10 %
S. Certain Key Assumptions				
Investment Return Assumption	7.50%	7.50%	5.50%	9.50%
Mortality Table	FRS Mortality - Special Risk	FRS Mortality - Special Risk	FRS Mortality - Special Risk	FRS Mortality - Special Risk