

CITY OF DELRAY BEACH FIREFIGHTERS' RETIREMENT SYSTEM

Chapter 112.664, F.S. Compliance Report

In Connection with the October 1, 2018 Funding Actuarial
Valuation Report

And the Plan's Financial Reporting for the Year Ending
September 30, 2018



July 31, 2019

Board of Trustees
City of Delray Beach Firefighters' Retirement System
Delray Beach, Florida

Dear Board Members:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the City of Delray Beach Firefighters' Retirement System (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, 2018. 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, 2018 actuarial valuation report. This report is also based on the Plan Provisions, census data, and financial information as summarized in our October 1, 2018 actuarial valuation report. Please refer to the October 1, 2018 actuarial valuation report, dated May 14, 2019, 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.

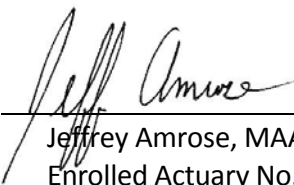
This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations 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.

Jeffrey Amrose and Trisha 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.

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 & COMPANY

By 
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Enrolled Actuary No. 17-6599
Senior Consultant & Actuary


By 
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Enrolled Actuary No. 17-8010
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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,	2018
1. Total pension liability	
a. Service Cost	\$ 2,325,806
b. Interest	12,106,606
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	(2,577,793)
e. Assumption Changes	11,883,072
f. Benefit Payments	(8,424,033)
g. Contribution Refunds	(10,449)
h. Net Change in Total Pension Liability	15,303,209
i. Total Pension Liability - Beginning	153,224,007
j. Total Pension Liability - Ending	\$ 168,527,216
 2. Plan Fiduciary Net Position	
a. Contributions - Employer and Non-Employer	\$ 4,374,387
b. Contributions - State	1,074,825
c. Contributions - Member	991,333
d. Net Investment Income	8,602,179
e. Benefit Payments	(8,424,033)
f. Contribution Refunds	(10,449)
g. Administrative Expense	(111,297)
h. Other	160,328 *
i. Net Change in Plan Fiduciary Net Position	6,657,273
j. Plan Fiduciary Net Position - Beginning	108,926,796
k. Plan Fiduciary Net Position - Ending	\$ 115,584,069
 3. Net Pension Liability / (Asset)	52,943,147
 Certain Key Assumptions	
Valuation Date	10/01/2017
Measurement Date	09/30/2018
Investment Return Assumption	7.25%
Mortality Table	FRS Mortality - Special Risk

* Due from Police Pension Fund for final settlement of Legacy Fund split.

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

Fiscal year ending September 30,	<u>2018</u>
1. Total pension liability	
a. Service Cost	\$ 2,325,806
b. Interest	12,106,606
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	(2,577,793)
e. Assumption Changes	11,883,072
f. Benefit Payments	(8,424,033)
g. Contribution Refunds	(10,449)
h. Net Change in Total Pension Liability	<u>15,303,209</u>
i. Total Pension Liability - Beginning	<u>153,224,007</u>
j. Total Pension Liability - Ending	<u>\$ 168,527,216</u>
2. Plan Fiduciary Net Position	
a. Contributions - Employer and Non-Employer	\$ 4,374,387
b. Contributions - State	1,074,825
c. Contributions - Member	991,333
d. Net Investment Income	8,602,179
e. Benefit Payments	(8,424,033)
f. Contribution Refunds	(10,449)
g. Administrative Expense	(111,297)
h. Other	160,328 *
i. Net Change in Plan Fiduciary Net Position	<u>6,657,273</u>
j. Plan Fiduciary Net Position - Beginning	<u>108,926,796</u>
k. Plan Fiduciary Net Position - Ending	<u>\$ 115,584,069</u>
3. Net Pension Liability / (Asset)	52,943,147
Certain Key Assumptions	
Valuation Date	10/01/2017
Measurement Date	09/30/2018
Investment Return Assumption	7.25%
Mortality Table	FRS Mortality - Special Risk

* Due from Police Pension Fund for final settlement of Legacy Fund split.

**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>2018</u>
1. Total pension liability	
a. Service Cost	\$ 4,435,040
b. Interest	10,692,172
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	-
e. Assumption Changes	-
f. Benefit Payments	(8,424,033)
g. Contribution Refunds	(10,449)
h. Net Change in Total Pension Liability	<u>6,692,730</u>
i. Total Pension Liability - Beginning	<u>203,442,611</u>
j. Total Pension Liability - Ending	<u>\$ 210,135,341</u>
2. Plan Fiduciary Net Position	
a. Contributions - Employer and Non-Employer	\$ 4,374,387
b. Contributions - State	1,074,825
c. Contributions - Member	991,333
d. Net Investment Income	8,602,179
e. Benefit Payments	(8,424,033)
f. Contribution Refunds	(10,449)
g. Administrative Expense	(111,297)
h. Other	160,328 *
i. Net Change in Plan Fiduciary Net Position	<u>6,657,273</u>
j. Plan Fiduciary Net Position - Beginning	<u>108,926,796</u>
k. Plan Fiduciary Net Position - Ending	<u>\$ 115,584,069</u>
3. Net Pension Liability / (Asset)	94,551,272
Certain Key Assumptions	
Valuation Date	10/01/2017
Measurement Date	09/30/2018
Investment Return Assumption	5.25%
Mortality Table	FRS Mortality - Special Risk

* Due from Police Pension Fund for final settlement of Legacy Fund split.

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,	2018
1. Total pension liability	
a. Service Cost	\$ 1,767,386
b. Interest	12,262,543
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	-
e. Assumption Changes	-
f. Benefit Payments	(8,424,033)
g. Contribution Refunds	(10,449)
h. Net Change in Total Pension Liability	5,595,447
i. Total Pension Liability - Beginning	135,017,887
j. Total Pension Liability - Ending	\$ 140,613,334
2. Plan Fiduciary Net Position	
a. Contributions - Employer and Non-Employer	\$ 4,374,387
b. Contributions - State	1,074,825
c. Contributions - Member	991,333
d. Net Investment Income	8,602,179
e. Benefit Payments	(8,424,033)
f. Contribution Refunds	(10,449)
g. Administrative Expense	(111,297)
h. Other	160,328 *
i. Net Change in Plan Fiduciary Net Position	6,657,273
j. Plan Fiduciary Net Position - Beginning	108,926,796
k. Plan Fiduciary Net Position - Ending	\$ 115,584,069
3. Net Pension Liability / (Asset)	25,029,265
Certain Key Assumptions	
Valuation Date	10/01/2017
Measurement Date	09/30/2018
Investment Return Assumption	9.25%
Mortality Table	FRS Mortality - Special Risk

* Due from Police Pension Fund for final settlement of Legacy Fund split.

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)
2019	103,733,220	6,959,302	8,629,230	102,063,292
2020	102,063,292	6,838,017	8,754,659	100,146,650
2021	100,146,650	6,698,558	8,905,921	97,939,287
2022	97,939,287	6,537,875	9,082,159	95,395,003
2023	95,395,003	6,348,732	9,397,670	92,346,065
2024	92,346,065	6,126,835	9,639,709	88,833,191
2025	88,833,191	5,870,138	9,948,146	84,755,183
2026	84,755,183	5,573,555	10,265,946	80,062,792
2027	80,062,792	5,233,533	10,596,079	74,700,246
2028	74,700,246	4,843,875	11,004,067	68,540,054
2029	68,540,054	4,406,518	11,179,582	61,766,990
2030	61,766,990	3,925,595	11,374,123	54,318,462
2031	54,318,462	3,401,039	11,464,376	46,255,125
2032	46,255,125	2,831,916	11,598,368	37,488,673
2033	37,488,673	2,218,503	11,591,540	28,115,636
2034	28,115,636	1,562,207	11,596,783	18,081,060
2035	18,081,060	860,018	11,590,189	7,350,889
2036	7,350,889	109,081	11,585,189	-
2037	-	-	11,543,211	-
2038	-	-	11,478,705	-
2039	-	-	11,409,123	-
2040	-	-	11,322,389	-
2041	-	-	11,210,141	-
2042	-	-	11,077,408	-
2043	-	-	10,936,418	-
2044	-	-	10,765,888	-

Number of years for which current market value of assets are 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: 17.67

Certain Key Assumptions

Valuation Investment Return Assumption 7.00%
 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)
2019	103,733,220	6,959,302	8,629,230	102,063,292
2020	102,063,292	6,838,017	8,754,659	100,146,650
2021	100,146,650	6,698,558	8,905,921	97,939,287
2022	97,939,287	6,537,875	9,082,159	95,395,003
2023	95,395,003	6,348,732	9,397,670	92,346,065
2024	92,346,065	6,126,835	9,639,709	88,833,191
2025	88,833,191	5,870,138	9,948,146	84,755,183
2026	84,755,183	5,573,555	10,265,946	80,062,792
2027	80,062,792	5,233,533	10,596,079	74,700,246
2028	74,700,246	4,843,875	11,004,067	68,540,054
2029	68,540,054	4,406,518	11,179,582	61,766,990
2030	61,766,990	3,925,595	11,374,123	54,318,462
2031	54,318,462	3,401,039	11,464,376	46,255,125
2032	46,255,125	2,831,916	11,598,368	37,488,673
2033	37,488,673	2,218,503	11,591,540	28,115,636
2034	28,115,636	1,562,207	11,596,783	18,081,060
2035	18,081,060	860,018	11,590,189	7,350,889
2036	7,350,889	109,081	11,585,189	-
2037	-	-	11,543,211	-
2038	-	-	11,478,705	-
2039	-	-	11,409,123	-
2040	-	-	11,322,389	-
2041	-	-	11,210,141	-
2042	-	-	11,077,408	-
2043	-	-	10,936,418	-
2044	-	-	10,765,888	-

Number of years for which current market value of assets are 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: 17.67

Certain Key Assumptions

Valuation Investment Return Assumption 7.00%
 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)
2019	103,733,220	4,970,930	8,629,230	100,074,920
2020	100,074,920	4,784,880	8,754,659	96,105,141
2021	96,105,141	4,582,609	8,905,921	91,781,829
2022	91,781,829	4,362,037	9,082,159	87,061,707
2023	87,061,707	4,118,144	9,397,670	81,782,181
2024	81,782,181	3,848,116	9,639,709	75,990,588
2025	75,990,588	3,550,826	9,948,146	69,593,268
2026	69,593,268	3,223,015	10,265,946	62,550,337
2027	62,550,337	2,862,615	10,596,079	54,816,873
2028	54,816,873	2,465,742	11,004,067	46,278,548
2029	46,278,548	2,034,438	11,179,582	37,133,404
2030	37,133,404	1,572,317	11,374,123	27,331,598
2031	27,331,598	1,079,971	11,464,376	16,947,193
2032	16,947,193	557,400	11,598,368	5,906,225
2033	5,906,225	5,523	11,591,540	-
2034	-	-	11,596,783	-
2035	-	-	11,590,189	-
2036	-	-	11,585,189	-
2037	-	-	11,543,211	-
2038	-	-	11,478,705	-
2039	-	-	11,409,123	-
2040	-	-	11,322,389	-
2041	-	-	11,210,141	-
2042	-	-	11,077,408	-
2043	-	-	10,936,418	-
2044	-	-	10,765,888	-

Number of years for which current market value of assets are 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: 14.50

Certain Key Assumptions

Valuation Investment Return Assumption 5.00%
 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)
2019	103,733,220	8,947,674	8,629,230	104,051,664
2020	104,051,664	8,970,690	8,754,659	104,267,695
2021	104,267,695	8,983,326	8,905,921	104,345,100
2022	104,345,100	8,982,362	9,082,159	104,245,303
2023	104,245,303	8,959,182	9,397,670	103,806,815
2024	103,806,815	8,908,826	9,639,709	103,075,932
2025	103,075,932	8,829,167	9,948,146	101,956,953
2026	101,956,953	8,714,158	10,265,946	100,405,165
2027	100,405,165	8,559,641	10,596,079	98,368,727
2028	98,368,727	8,358,002	11,004,067	95,722,662
2029	95,722,662	8,111,958	11,179,582	92,655,038
2030	92,655,038	7,827,118	11,374,123	89,108,033
2031	89,108,033	7,503,826	11,464,376	85,147,483
2032	85,147,483	7,141,347	11,598,368	80,690,462
2033	80,690,462	6,740,522	11,591,540	75,839,444
2034	75,839,444	6,303,695	11,596,783	70,546,356
2035	70,546,356	5,827,614	11,590,189	64,783,781
2036	64,783,781	5,309,207	11,585,189	58,507,799
2037	58,507,799	4,746,257	11,543,211	51,710,845
2038	51,710,845	4,137,434	11,478,705	44,369,574
2039	44,369,574	3,479,851	11,409,123	36,440,302
2040	36,440,302	2,770,120	11,322,389	27,888,033
2041	27,888,033	2,005,467	11,210,141	18,683,359
2042	18,683,359	1,183,019	11,077,408	8,788,970
2043	8,788,970	298,868	10,936,418	-
2044	-	-	10,765,888	-

Number of years for which current market value of assets are 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: 24.83

Certain Key Assumptions

Valuation Investment Return Assumption	9.00%
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, 2018	October 1, 2018	October 1, 2018	October 1, 2018
B. Actuarially Determined Contribution (ADC) to Be Paid During Fiscal Year Ending	9/30/2020	9/30/2020	9/30/2020	9/30/2020
C. Assumed Dates of Employer Contributions	Biweekly	Biweekly	Biweekly	Biweekly
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 5,724,692	\$ 5,724,692	\$ 8,211,053	\$ 3,606,125
E. Employer Normal Cost	2,282,165	2,282,165	4,278,211	1,143,964
F. ADC if Paid on Valuation Date: D + E	8,006,857	8,006,857	12,489,264	4,750,089
G. ADC Adjusted for Frequency of Payments	8,288,378	8,288,378	12,805,867	4,962,845
H. ADC as % of Covered Payroll	74.33 %	74.33 %	114.85 %	44.51 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	5.55 %	5.55 %	5.55 %	5.55 %
J. Covered Payroll for Contribution Year	11,769,360	11,769,360	11,769,360	11,769,360
K. ADC for Contribution Year: H x J	8,748,165	8,748,165	13,517,110	5,238,542
L. Estimated Credit for State Revenue in Contribution Year	1,074,825	1,074,825	1,074,825	1,074,825
M. Required Employer Contribution (REC) in Contribution Year	7,673,340	7,673,340	12,442,285	4,163,717
N. REC as % of Covered Payroll in Contribution Year: M ÷ J	65.20 %	65.20 %	105.72 %	35.38 %
O. Expected Member Contributions	1,059,242	1,059,242	1,059,242	1,059,242
P. Total Contribution (Including Members) in Contribution Year	9,807,407	9,807,407	14,576,352	6,297,784
Q. Total Contribution as % of Covered Payroll in Contribution Year: P ÷ J	83.33 %	83.33 %	123.85 %	53.51 %
R. Certain Key Assumptions				
Investment Return Assumption	7.00 %	7.00 %	5.00 %	9.00 %
Mortality Table	FRS Mortality - Special Risk	FRS Mortality - Special Risk	FRS Mortality - Special Risk	FRS Mortality - Special Risk