

# City of Cooper City Firefighters Retirement Plan

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 19, 2019

Board of Trustees  
City of Cooper City Firefighters  
Retirement Plan  
Cooper City, Florida

Dear Board Members:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the City of Cooper City Firefighters Retirement Plan (Plan) 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 Plan and those designated or approved by the Board. This report may be provided to parties other than the Plan only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

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 Plan Administrator 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 Plan Administrator.

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 June 4, 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.

Melissa R. Moskovitz and Piotr Krekora 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 completed 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.

Gabriel, Roeder, Smith & Company will be pleased to review this report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

By Melissa R. Moskovitz

Melissa R. Moskovitz, MAAA, FCA  
Enrolled Actuary No. 17-6467  
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## **CHAPTER 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,	<u>2018</u>
<b>1. Total pension liability</b>	
a. Service Cost	\$ 92,137
b. Interest	1,937,118
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	213,127
e. Assumption Changes	-
f. Benefit Payments	(2,290,342)
g. Contribution Refunds	-
<b>h. Net Change in Total Pension Liability</b>	<u>(47,960)</u>
<b>i. Total Pension Liability - Beginning</b>	<u>28,726,150</u>
<b>j. Total Pension Liability - Ending</b>	<u><u>\$ 28,678,190</u></u>
<b>2. Plan Fiduciary Net Position</b>	
a. Contributions - Employer (City) and Non-Employer Contributing Entity (BSO)	\$ 1,148,786
b. Contributions - State	188,622
c. Contributions - Member	9,147
d. Net Investment Income	1,893,466
e. Benefit Payments	(2,290,342)
f. Contribution Refunds	-
g. Administrative Expense	(87,968)
h. Other	-
<b>i. Net Change in Plan Fiduciary Net Position</b>	<u>861,711</u>
<b>j. Plan Fiduciary Net Position - Beginning</b>	<u>25,689,468</u>
<b>k. Plan Fiduciary Net Position - Ending</b>	<u><u>\$ 26,551,179</u></u>
<b>3. Net Pension Liability / (Asset)</b>	2,127,011
<b>Certain Key Assumptions</b>	
Valuation Date	10/01/2017
Measurement Date	09/30/2018
Investment Return Assumption	7.00%
Mortality Table	FRS Mortality - Special Risk Class

**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>
<b>1. Total pension liability</b>	
a. Service Cost	\$ 92,137
b. Interest	1,937,118
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	213,127
e. Assumption Changes	-
f. Benefit Payments	(2,290,342)
g. Contribution Refunds	-
<b>h. Net Change in Total Pension Liability</b>	<u>(47,960)</u>
<b>i. Total Pension Liability - Beginning</b>	<u>28,726,150</u>
<b>j. Total Pension Liability - Ending</b>	<u>\$ 28,678,190</u>
<b>2. Plan Fiduciary Net Position</b>	
a. Contributions - Employer (City) and Non-Employer Contributing Entity (BSO)	\$ 1,148,786
b. Contributions - State	188,622
c. Contributions - Member	9,147
d. Net Investment Income	1,893,466
e. Benefit Payments	(2,290,342)
f. Contribution Refunds	-
g. Administrative Expense	(87,968)
h. Other	-
<b>i. Net Change in Plan Fiduciary Net Position</b>	<u>861,711</u>
<b>j. Plan Fiduciary Net Position - Beginning</b>	<u>25,689,468</u>
<b>k. Plan Fiduciary Net Position - Ending</b>	<u>\$ 26,551,179</u>
<b>3. Net Pension Liability / (Asset)</b>	2,127,011
<b>Certain Key Assumptions</b>	
Valuation Date	10/01/2017
Measurement Date	09/30/2018
Investment Return Assumption	7.00%
Mortality Table	FRS Mortality - Special Risk Class

**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>
<b>1. Total pension liability</b>	
a. Service Cost	\$ 145,961
b. Interest	1,705,117
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	-
e. Assumption Changes	-
f. Benefit Payments	(2,290,342)
g. Contribution Refunds	-
<b>h. Net Change in Total Pension Liability</b>	<u>(439,264)</u>
<b>i. Total Pension Liability - Beginning</b>	<u>35,101,552</u>
<b>j. Total Pension Liability - Ending</b>	<u>\$ 34,662,288</u>
<b>2. Plan Fiduciary Net Position</b>	
a. Contributions - Employer (City) and Non-Employer Contributing Entity (BSO)	\$ 1,148,786
b. Contributions - State	188,622
c. Contributions - Member	9,147
d. Net Investment Income	1,893,466
e. Benefit Payments	(2,290,342)
f. Contribution Refunds	-
g. Administrative Expense	(87,968)
h. Other	-
<b>i. Net Change in Plan Fiduciary Net Position</b>	<u>861,711</u>
<b>j. Plan Fiduciary Net Position - Beginning</b>	<u>25,689,468</u>
<b>k. Plan Fiduciary Net Position - Ending</b>	<u>\$ 26,551,179</u>
<b>3. Net Pension Liability / (Asset)</b>	8,111,109
<b>Certain Key Assumptions</b>	
Valuation Date	10/01/2017
Measurement Date	09/30/2018
Investment Return Assumption	5.00%
Mortality Table	FRS Mortality - Special Risk Class

**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,	<u>2018</u>
<b>1. Total pension liability</b>	
a. Service Cost	\$ 60,222
b. Interest	2,122,520
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	-
e. Assumption Changes	-
f. Benefit Payments	(2,290,342)
g. Contribution Refunds	-
<b>h. Net Change in Total Pension Liability</b>	<u>(107,600)</u>
<b>i. Total Pension Liability - Beginning</b>	<u>24,668,499</u>
<b>j. Total Pension Liability - Ending</b>	<u><u>\$ 24,560,899</u></u>
<b>2. Plan Fiduciary Net Position</b>	
a. Contributions - Employer (City) and Non-Employer Contributing Entity (BSO)	\$ 1,148,786
b. Contributions - State	188,622
c. Contributions - Member	9,147
d. Net Investment Income	1,893,466
e. Benefit Payments	(2,290,342)
f. Contribution Refunds	-
g. Administrative Expense	(87,968)
h. Other	-
<b>i. Net Change in Plan Fiduciary Net Position</b>	<u>861,711</u>
<b>j. Plan Fiduciary Net Position - Beginning</b>	<u>25,689,468</u>
<b>k. Plan Fiduciary Net Position - Ending</b>	<u><u>\$ 26,551,179</u></u>
<b>3. Net Pension Liability / (Asset)</b>	(1,990,280)
<b>Certain Key Assumptions</b>	
Valuation Date	10/01/2017
Measurement Date	09/30/2018
Investment Return Assumption	9.00%
Mortality Table	FRS Mortality - Special Risk Class

**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	22,396,036	1,396,416	1,825,434	21,967,018
2020	21,967,018	1,366,469	1,888,826	21,444,661
2021	21,444,661	1,332,844	1,878,749	20,898,756
2022	20,898,756	1,296,159	1,915,690	20,279,225
2023	20,279,225	1,256,074	1,910,008	19,625,291
2024	19,625,291	1,213,839	1,901,691	18,937,439
2025	18,937,439	1,169,475	1,891,026	18,215,888
2026	18,215,888	1,122,920	1,880,387	17,458,422
2027	17,458,422	1,072,641	1,912,498	16,618,565
2028	16,618,565	1,018,214	1,907,471	15,729,308
2029	15,729,308	960,855	1,893,855	14,796,307
2030	14,796,307	900,787	1,876,078	13,821,017
2031	13,821,017	837,899	1,860,522	12,798,394
2032	12,798,394	772,063	1,841,017	11,729,440
2033	11,729,440	703,167	1,822,959	10,609,648
2034	10,609,648	631,002	1,803,860	9,436,790
2035	9,436,790	555,424	1,783,614	8,208,599
2036	8,208,599	476,291	1,762,079	6,922,812
2037	6,922,812	393,550	1,736,393	5,579,969
2038	5,579,969	307,090	1,711,002	4,176,057
2039	4,176,057	216,702	1,684,349	2,708,411
2040	2,708,411	122,233	1,655,809	1,174,835
2041	1,174,835	23,543	1,625,259	-
2042	-	-	1,592,557	-
2043	-	-	1,557,575	-
2044	-	-	1,520,183	-

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: 22.75

**Certain Key Assumptions**

Valuation Investment Return Assumption 6.50%  
 Valuation Mortality Table FRS Mortality - Special Risk Class

**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	22,396,036	1,396,416	1,825,434	21,967,018
2020	21,967,018	1,366,469	1,888,826	21,444,661
2021	21,444,661	1,332,844	1,878,749	20,898,756
2022	20,898,756	1,296,159	1,915,690	20,279,225
2023	20,279,225	1,256,074	1,910,008	19,625,291
2024	19,625,291	1,213,839	1,901,691	18,937,439
2025	18,937,439	1,169,475	1,891,026	18,215,888
2026	18,215,888	1,122,920	1,880,387	17,458,422
2027	17,458,422	1,072,641	1,912,498	16,618,565
2028	16,618,565	1,018,214	1,907,471	15,729,308
2029	15,729,308	960,855	1,893,855	14,796,307
2030	14,796,307	900,787	1,876,078	13,821,017
2031	13,821,017	837,899	1,860,522	12,798,394
2032	12,798,394	772,063	1,841,017	11,729,440
2033	11,729,440	703,167	1,822,959	10,609,648
2034	10,609,648	631,002	1,803,860	9,436,790
2035	9,436,790	555,424	1,783,614	8,208,599
2036	8,208,599	476,291	1,762,079	6,922,812
2037	6,922,812	393,550	1,736,393	5,579,969
2038	5,579,969	307,090	1,711,002	4,176,057
2039	4,176,057	216,702	1,684,349	2,708,411
2040	2,708,411	122,233	1,655,809	1,174,835
2041	1,174,835	23,543	1,625,259	-
2042	-	-	1,592,557	-
2043	-	-	1,557,575	-
2044	-	-	1,520,183	-

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:** 22.75

**Certain Key Assumptions**

Valuation Investment Return Assumption	6.50%
Valuation Mortality Table	FRS Mortality - Special Risk Class

**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	22,396,036	966,749	1,825,434	21,537,351
2020	21,537,351	926,682	1,888,826	20,575,208
2021	20,575,208	883,612	1,878,749	19,580,071
2022	19,580,071	838,000	1,915,690	18,502,381
2023	18,502,381	789,632	1,910,008	17,382,005
2024	17,382,005	739,402	1,901,691	16,219,716
2025	16,219,716	687,339	1,891,026	15,016,030
2026	15,016,030	633,413	1,880,387	13,769,055
2027	13,769,055	576,576	1,912,498	12,433,133
2028	12,433,133	516,573	1,907,471	11,042,235
2029	11,042,235	454,289	1,893,855	9,602,669
2030	9,602,669	389,908	1,876,078	8,116,500
2031	8,116,500	323,381	1,860,522	6,579,358
2032	6,579,358	254,648	1,841,017	4,992,990
2033	4,992,990	183,668	1,822,959	3,353,699
2034	3,353,699	110,330	1,803,860	1,660,168
2035	1,660,168	34,576	1,783,614	-
2036	-	-	1,762,079	-
2037	-	-	1,736,393	-
2038	-	-	1,711,002	-
2039	-	-	1,684,349	-
2040	-	-	1,655,809	-
2041	-	-	1,625,259	-
2042	-	-	1,592,557	-
2043	-	-	1,557,575	-
2044	-	-	1,520,183	-

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: 16.92

**Certain Key Assumptions**

Valuation Investment Return Assumption	4.50%
Valuation Mortality Table	FRS Mortality - Special Risk Class

**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	22,396,036	1,826,082	1,825,434	22,396,684
2020	22,396,684	1,823,443	1,888,826	22,331,301
2021	22,331,301	1,818,314	1,878,749	22,270,866
2022	22,270,866	1,811,607	1,915,690	22,166,783
2023	22,166,783	1,803,001	1,910,008	22,059,776
2024	22,059,776	1,794,259	1,901,691	21,952,344
2025	21,952,344	1,785,581	1,891,026	21,846,899
2026	21,846,899	1,777,070	1,880,387	21,743,582
2027	21,743,582	1,766,923	1,912,498	21,598,007
2028	21,598,007	1,754,763	1,907,471	21,445,299
2029	21,445,299	1,742,362	1,893,855	21,293,805
2030	21,293,805	1,730,240	1,876,078	21,147,968
2031	21,147,968	1,718,505	1,860,522	21,005,951
2032	21,005,951	1,707,263	1,841,017	20,872,196
2033	20,872,196	1,696,661	1,822,959	20,745,898
2034	20,745,898	1,686,737	1,803,860	20,628,775
2035	20,628,775	1,677,642	1,783,614	20,522,804
2036	20,522,804	1,669,550	1,762,079	20,430,275
2037	20,430,275	1,662,777	1,736,393	20,356,658
2038	20,356,658	1,657,598	1,711,002	20,303,255
2039	20,303,255	1,654,192	1,684,349	20,273,098
2040	20,273,098	1,652,841	1,655,809	20,270,130
2041	20,270,130	1,653,888	1,625,259	20,298,759
2042	20,298,759	1,657,711	1,592,557	20,363,912
2043	20,363,912	1,664,736	1,557,575	20,471,073
2044	20,471,073	1,675,433	1,520,183	20,626,323

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:

All future years

**Certain Key Assumptions**

Valuation Investment Return Assumption

8.50%

Valuation Mortality Table

FRS Mortality - Special Risk Class

**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 EMPLOYER CONTRIBUTION (ADEC)				
	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. Actuarial Determined Employer Contribution (ADEC) 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	Quarterly	Quarterly	Quarterly	Quarterly
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 496,555	\$ 496,555	\$ 1,279,594	\$ 0
E. Employer Normal Cost	151,604	151,604	195,766	125,431
F. ADEC if Paid on Valuation Date: D + E	648,159	648,159	1,475,360	125,431
G. ADEC Adjusted for Frequency of Payments	673,865	673,865	1,516,168	131,888
H. ADEC Adjusted for Frequency of Payments as % of Covered Payroll	278.23 %	278.23 %	626.00 %	54.45 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	0.00 %	0.00 %	0.00 %	0.00 %
J. Covered Payroll for Contribution Year	242,198	242,198	242,198	242,198
K. ADEC for Contribution Year: H x J	673,865	673,865	1,516,168	131,888
L. Estimated Credit for State Revenue in Contribution Year	188,622	188,622	188,622	188,622
M. Net Employer ADEC in Contribution Year*: K - L, Not Less Than 0	485,243	485,243	1,327,546	0
N. Net Employer ADEC as % of Covered Payroll in Contribution Year*: M ÷ J	200.35 %	200.35 %	548.12 %	0.00 %
O. Expected Member Contribution	8,356	8,356	8,356	8,356
P. Total Contribution (Including Members) in Contribution Year: L + M + O	682,221	682,221	1,524,524	196,978
Q. Total Contribution as % of Covered Payroll in Contribution Year: P ÷ J	281.68 %	281.68 %	629.45 %	81.33 %
R. Certain Key Assumptions				
Investment Return Assumption	6.50%	6.50%	4.50%	8.50%
Mortality Table	FRS Mortality - Special Risk Class			

\*Includes 5% pick-up contributions paid by BSO.