



April 4, 2019

VIA EMAIL

Ms. Debbie Grant, Administrator  
City of Cocoa Beach  
Firefighters' Pension Board  
2830 Michigan St.  
Melbourne, FL 32904

Re: City of Cocoa Beach Firefighters' Retirement System  
Section 112.664, Florida Statutes Compliance

Dear Debbie:

Please find enclosed the annual disclosures that satisfy the October 1, 2018 financial reporting requirements made under Section 112.664.

Our office will submit this information electronically to the Department of Management Services. However, it is important for you to be aware that this report must also be made available on the Plan or Plan Sponsor's website, if such website exists. A deadline for this website publication is not made clear in the law.

In addition to the enclosed report, the Plan or Plan Sponsor's website must provide a link to the Division of Retirement's Actuarial Summary Fact Sheet for the Plan, and also report the previous five years' assumed and actual rates of return, along with their respective asset allocations. The Board should contact its Investment Consultant for this information.

If there are any questions, concerns, or comments about any of the items contained in this report, please feel free to contact me.

Respectfully submitted,

Foster & Foster, Inc.

By: 

Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #17-7778

DHL/lke  
Enclosures

cc via email: Pedro Herrera, Board Attorney  
cc via email: Jessica A. De la Torre Vila, Legal Assistant  
cc via email: Eileen Clark, Chief Finance Officer

CITY OF COCOA BEACH  
FIREFIGHTERS' RETIREMENT SYSTEM

SECTION 112.664, FLORIDA STATUTES  
COMPLIANCE

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), Florida Statutes, and Rule 60T-1.0035, Florida Administrative Code.

By:



Date: 4/4/2019

Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #17-7778



When reviewing the following schedules, please note the following:

- 1) The purpose of producing this report is solely to satisfy the requirements set forth by Section 112.664, Florida Statutes, and is mandatory for every Florida public pension fund, excluding the Florida Retirement System (FRS).
- 2) None of the schedules shown have any impact on the funding requirements of the Plan. These schedules are for statutory compliance purposes only.
- 3) In the schedules that follow, the columns labeled “ACTUAL” represent the final recorded GASB 67/68 results. The columns labeled “HYPOTHETICAL” illustrate what the results would have been if different assumptions were used.
- 4) It is our opinion that the Plan’s actual assumptions utilized in the October 1, 2018 Actuarial Valuation Report, as adopted by the Board of Trustees, are reasonable individually and in the aggregate, and represent our best estimate of future Plan experience.
- 5) The “Number of Years Expected Benefit Payments Sustained” calculated in Section II: Asset Sustainability should not be interpreted as the number of years the Plan has left until it is insolvent. This calculation is required by 112.664, Florida Statutes, but the numeric result is irrelevant, since in its calculation we are to assume there will be no further contributions to the Fund. As long as the Actuarially Determined Contribution is made each year the Plan will never become insolvent.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY  
FISCAL YEAR SEPTEMBER 30, 2018

	ACTUAL	HYPOTHETICAL	
	7.75% RP-2000 Generational	5.75% RP-2000 Generational	9.75% RP-2000 Generational
<u>Total Pension Liability</u>			
Service Cost	252,306	387,642	170,782
Interest	1,193,937	1,112,050	1,234,711
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	281,198	447,907	163,322
Changes of Assumptions	-	-	-
Benefit Payments, Including Refunds of Employee Contributions	(757,898)	(757,898)	(757,898)
Net Change in Total Pension Liability	969,543	1,189,701	810,917
Total Pension Liability - Beginning	15,532,287	19,331,299	12,871,873
Total Pension Liability - Ending (a)	<u>\$ 16,501,830</u>	<u>\$ 20,521,000</u>	<u>\$ 13,682,790</u>
<u>Plan Fiduciary Net Position</u>			
Contributions - Employer	609,433	609,433	609,433
Contributions - State	111,216	111,216	111,216
Contributions - Employee	77,874	77,874	77,874
Net Investment Income	1,596,550	1,596,550	1,596,550
Benefit Payments, Including Refunds of Employee Contributions	(757,898)	(757,898)	(757,898)
Administrative Expenses	(38,992)	(38,992)	(38,992)
Net Change in Plan Fiduciary Net Position	1,598,183	1,598,183	1,598,183
Plan Fiduciary Net Position - Beginning	13,319,450	13,319,450	13,319,450
Plan Fiduciary Net Position - Ending (b)	<u>\$ 14,917,633</u>	<u>\$ 14,917,633</u>	<u>\$ 14,917,633</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,584,197</u>	<u>\$ 5,603,367</u>	<u>\$ (1,234,843)</u>

## PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 1  
Plan Assumptions: 7.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2018	14,917,633	-	1,375,576	-	1,102,813	14,644,870
2019	14,644,870	-	1,004,289	-	1,096,061	14,736,642
2020	14,736,642	-	1,064,854	-	1,100,827	14,772,615
2021	14,772,615	-	1,072,485	-	1,103,319	14,803,449
2022	14,803,449	-	1,081,877	-	1,105,345	14,826,917
2023	14,826,917	-	1,245,581	-	1,100,820	14,682,156
2024	14,682,156	-	1,276,889	-	1,088,388	14,493,655
2025	14,493,655	-	1,303,148	-	1,072,761	14,263,268
2026	14,263,268	-	1,301,816	-	1,054,958	14,016,410
2027	14,016,410	-	1,306,371	-	1,035,650	13,745,689
2028	13,745,689	-	1,307,393	-	1,014,629	13,452,925
2029	13,452,925	-	1,327,247	-	991,171	13,116,849
2030	13,116,849	-	1,323,406	-	965,274	12,758,717
2031	12,758,717	-	1,306,639	-	938,168	12,390,246
2032	12,390,246	-	1,284,633	-	910,465	12,016,078
2033	12,016,078	-	1,263,014	-	882,304	11,635,368
2034	11,635,368	-	1,235,373	-	853,870	11,253,865
2035	11,253,865	-	1,213,375	-	825,156	10,865,646
2036	10,865,646	-	1,189,291	-	796,003	10,472,358
2037	10,472,358	-	1,165,084	-	766,461	10,073,735
2038	10,073,735	-	1,136,093	-	736,691	9,674,333
2039	9,674,333	-	1,106,053	-	706,901	9,275,181
2040	9,275,181	-	1,077,866	-	677,059	8,874,374
2041	8,874,374	-	1,050,666	-	647,051	8,470,759
2042	8,470,759	-	1,021,867	-	616,886	8,065,778
2043	8,065,778	-	992,048	-	586,656	7,660,386
2044	7,660,386	-	962,762	-	556,373	7,253,997
2045	7,253,997	-	932,949	-	526,033	6,847,081
2046	6,847,081	-	902,601	-	495,673	6,440,153
2047	6,440,153	-	871,605	-	465,337	6,033,885
2048	6,033,885	-	840,095	-	435,072	5,628,862
2049	5,628,862	-	807,723	-	404,938	5,226,077
2050	5,226,077	-	774,402	-	375,013	4,826,688
2051	4,826,688	-	740,217	-	345,385	4,431,856
2052	4,431,856	-	705,310	-	316,138	4,042,684
2053	4,042,684	-	669,749	-	287,355	3,660,290
2054	3,660,290	-	633,707	-	259,116	3,285,699
2055	3,285,699	-	597,254	-	231,498	2,919,943
2056	2,919,943	-	560,448	-	204,578	2,564,073
2057	2,564,073	-	523,401	-	178,434	2,219,106
2058	2,219,106	-	486,232	-	153,139	1,886,013
2059	1,886,013	-	449,055	-	128,765	1,565,723
2060	1,565,723	-	412,011	-	105,378	1,259,090
2061	1,259,090	-	375,355	-	83,034	966,769
2062	966,769	-	339,335	-	61,775	689,209
2063	689,209	-	304,208	-	41,626	426,627

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 1  
Plan Assumptions: 7.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2064	426,627	-	270,351	-	22,587	178,863
2065	178,863	-	238,116	-	-	-

\*All DROP Balances paid in 2018.

Number of Years Expected Benefit Payments Sustained: 47.75

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 7.75% interest.

**It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent. Furthermore, State and local laws mandate that the Actuarially Determined Contribution be made each year.**

## PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 2  
Hypothetical Assumptions: 5.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2018	14,917,633	-	1,375,576	-	818,216	14,360,273
2019	14,360,273	-	1,004,289	-	796,842	14,152,826
2020	14,152,826	-	1,064,854	-	783,173	13,871,145
2021	13,871,145	-	1,072,485	-	766,757	13,565,417
2022	13,565,417	-	1,081,877	-	748,908	13,232,448
2023	13,232,448	-	1,245,581	-	725,055	12,711,922
2024	12,711,922	-	1,276,889	-	694,225	12,129,258
2025	12,129,258	-	1,303,148	-	659,967	11,486,077
2026	11,486,077	-	1,301,816	-	623,022	10,807,283
2027	10,807,283	-	1,306,371	-	583,861	10,084,773
2028	10,084,773	-	1,307,393	-	542,287	9,319,667
2029	9,319,667	-	1,327,247	-	497,723	8,490,143
2030	8,490,143	-	1,323,406	-	450,135	7,616,872
2031	7,616,872	-	1,306,639	-	400,404	6,710,637
2032	6,710,637	-	1,284,633	-	348,928	5,774,932
2033	5,774,932	-	1,263,014	-	295,747	4,807,665
2034	4,807,665	-	1,235,373	-	240,924	3,813,216
2035	3,813,216	-	1,213,375	-	184,375	2,784,216
2036	2,784,216	-	1,189,291	-	125,900	1,720,825
2037	1,720,825	-	1,165,084	-	65,451	621,192
2038	621,192	-	1,136,093	-	-	-

\*All DROP Balances paid in 2018.

Number of Years Expected Benefit Payments Sustained: 20.55

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 5.75% interest.

**It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent. Furthermore, State and local laws mandate that the Actuarially Determined Contribution be made each year.**

## PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 3  
Hypothetical Assumptions: 9.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2018	14,917,633	-	1,375,576	-	1,387,410	14,929,467
2019	14,929,467	-	1,004,289	-	1,406,664	15,331,842
2020	15,331,842	-	1,064,854	-	1,442,943	15,709,931
2021	15,709,931	-	1,072,485	-	1,479,435	16,116,881
2022	16,116,881	-	1,081,877	-	1,518,654	16,553,658
2023	16,553,658	-	1,245,581	-	1,553,260	16,861,337
2024	16,861,337	-	1,276,889	-	1,581,732	17,166,180
2025	17,166,180	-	1,303,148	-	1,610,174	17,473,206
2026	17,473,206	-	1,301,816	-	1,640,174	17,811,564
2027	17,811,564	-	1,306,371	-	1,672,942	18,178,135
2028	18,178,135	-	1,307,393	-	1,708,633	18,579,375
2029	18,579,375	-	1,327,247	-	1,746,786	18,998,914
2030	18,998,914	-	1,323,406	-	1,787,878	19,463,386
2031	19,463,386	-	1,306,639	-	1,833,981	19,990,728
2032	19,990,728	-	1,284,633	-	1,886,470	20,592,565
2033	20,592,565	-	1,263,014	-	1,946,203	21,275,754
2034	21,275,754	-	1,235,373	-	2,014,162	22,054,543
2035	22,054,543	-	1,213,375	-	2,091,166	22,932,334
2036	22,932,334	-	1,189,291	-	2,177,925	23,920,968
2037	23,920,968	-	1,165,084	-	2,275,497	25,031,381
2038	25,031,381	-	1,136,093	-	2,385,175	26,280,463
2039	26,280,463	-	1,106,053	-	2,508,425	27,682,835
2040	27,682,835	-	1,077,866	-	2,646,530	29,251,499
2041	29,251,499	-	1,050,666	-	2,800,801	31,001,634
2042	31,001,634	-	1,021,867	-	2,972,843	32,952,610
2043	32,952,610	-	992,048	-	3,164,517	35,125,079
2044	35,125,079	-	962,762	-	3,377,761	37,540,078
2045	37,540,078	-	932,949	-	3,614,676	40,221,805
2046	40,221,805	-	902,601	-	3,877,624	43,196,828
2047	43,196,828	-	871,605	-	4,169,200	46,494,423
2048	46,494,423	-	840,095	-	4,492,252	50,146,580
2049	50,146,580	-	807,723	-	4,849,915	54,188,772
2050	54,188,772	-	774,402	-	5,245,653	58,660,023
2051	58,660,023	-	740,217	-	5,683,267	63,603,073
2052	63,603,073	-	705,310	-	6,166,916	69,064,679
2053	69,064,679	-	669,749	-	6,701,156	75,096,086
2054	75,096,086	-	633,707	-	7,290,975	81,753,354
2055	81,753,354	-	597,254	-	7,941,836	89,097,936
2056	89,097,936	-	560,448	-	8,659,727	97,197,215
2057	97,197,215	-	523,401	-	9,451,213	106,125,027
2058	106,125,027	-	486,232	-	10,323,486	115,962,281
2059	115,962,281	-	449,055	-	11,284,431	126,797,657
2060	126,797,657	-	412,011	-	12,342,686	138,728,332
2061	138,728,332	-	375,355	-	13,507,714	151,860,691
2062	151,860,691	-	339,335	-	14,789,875	166,311,231
2063	166,311,231	-	304,208	-	16,200,515	182,207,538
2064	182,207,538	-	270,351	-	17,752,055	199,689,242
2065	199,689,242	-	238,116	-	19,458,093	218,909,219
2066	218,909,219	-	208,045	-	21,333,507	240,034,681
2067	240,034,681	-	180,672	-	23,394,574	263,248,583



## PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 3  
Hypothetical Assumptions: 9.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2068	263,248,583	-	156,145	-	25,659,125	288,751,563
2069	288,751,563	-	134,304	-	28,146,730	316,763,989
2070	316,763,989	-	115,059	-	30,878,880	347,527,810
2071	347,527,810	-	98,142	-	33,879,177	381,308,845
2072	381,308,845	-	83,341	-	37,173,550	418,399,054
2073	418,399,054	-	70,480	-	40,790,472	459,119,046
2074	459,119,046	-	59,357	-	44,761,213	503,820,902
2075	503,820,902	-	49,718	-	49,120,114	552,891,298
2076	552,891,298	-	41,461	-	53,904,880	606,754,717
2077	606,754,717	-	34,334	-	59,156,911	665,877,294
2078	665,877,294	-	28,145	-	64,921,664	730,770,813
2079	730,770,813	-	22,840	-	71,249,041	801,997,014
2080	801,997,014	-	18,393	-	78,193,812	880,172,433
2081	880,172,433	-	14,692	-	85,816,096	965,973,837
2082	965,973,837	-	11,626	-	94,181,882	1,060,144,093
2083	1,060,144,093	-	9,110	-	103,363,605	1,163,498,588
2084	1,163,498,588	-	7,075	-	113,440,767	1,276,932,280
2085	1,276,932,280	-	5,460	-	124,500,631	1,401,427,451
2086	1,401,427,451	-	4,182	-	136,638,973	1,538,062,242
2087	1,538,062,242	-	3,186	-	149,960,913	1,688,019,969
2088	1,688,019,969	-	2,401	-	164,581,830	1,852,599,398
2089	1,852,599,398	-	1,791	-	180,628,354	2,033,225,961
2090	2,033,225,961	-	1,315	-	198,239,467	2,231,464,113
2091	2,231,464,113	-	949	-	217,567,705	2,449,030,869
2092	2,449,030,869	-	666	-	238,780,477	2,687,810,680
2093	2,687,810,680	-	459	-	262,061,519	2,949,871,740
2094	2,949,871,740	-	309	-	287,612,480	3,237,483,911
2095	3,237,483,911	-	204	-	315,654,671	3,553,138,378
2096	3,553,138,378	-	131	-	346,430,985	3,899,569,232
2097	3,899,569,232	-	82	-	380,207,996	4,279,777,146
2098	4,279,777,146	-	50	-	417,278,269	4,697,055,365
2099	4,697,055,365	-	31	-	457,962,897	5,155,018,231
2100	5,155,018,231	-	18	-	502,614,277	5,657,632,490
2101	5,657,632,490	-	11	-	551,619,167	6,209,251,646
2102	6,209,251,646	-	7	-	605,402,035	6,814,653,674
2103	6,814,653,674	-	4	-	664,428,733	7,479,082,403
2104	7,479,082,403	-	2	-	729,210,534	8,208,292,935
2105	8,208,292,935	-	1	-	800,308,561	9,008,601,495
2106	9,008,601,495	-	1	-	878,338,646	9,886,940,140
2107	9,886,940,140	-	-	-	963,976,664	10,850,916,804

\*All DROP Balances paid in 2018.

Number of Years Expected Benefit Payments Sustained: 999.99

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 9.75% interest.

**It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent. Furthermore, State and local laws mandate that the Actuarially Determined Contribution be made each year.**

ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR  
ENDING SEPTEMBER 30, 2020

Valuation Date: 10/1/2018

	ACTUAL	HYPOTHETICAL	
	7.75% RP-2000 Generational	5.75% RP-2000 Generational	9.75% RP-2000 Generational
Total Required Contribution (Fixed \$)	\$674,930	\$1,063,986	\$341,852
Total Required Contribution (% of Payroll)	43.63%	68.78%	22.09%
Expected Member Contribution	77,350	77,350	77,350
Expected State Money	109,611	109,611	109,611
Expected Sponsor Contribution (Fixed \$)	\$487,969	\$877,025	\$154,891
Expected Sponsor Contribution (% of Payroll)	31.54%	56.69%	10.00%
<b><u>ASSETS</u></b>			
Actuarial Value <sup>1</sup>	13,977,468	13,977,468	13,977,468
Market Value <sup>1</sup>	14,917,633	14,917,633	14,917,633
<b><u>LIABILITIES</u></b>			
Present Value of Benefits			
Active Members			
Retirement Benefits	6,974,439	9,777,675	5,197,901
Disability Benefits	135,331	176,813	107,043
Death Benefits	51,237	61,349	43,389
Vested Benefits	564,952	845,809	396,379
Refund of Contributions	43,898	46,135	41,882
Service Retirees	7,746,474	9,229,169	6,657,792
DROP Retirees <sup>1</sup>	1,910,700	2,306,345	1,642,998
Beneficiaries	0	0	0
Disability Retirees	405,421	496,812	341,372
Terminated Vested	302,502	400,096	235,837
Share Plan Balances <sup>1</sup>	0	0	0
Total:	18,134,954	23,340,203	14,664,593
Present Value of Future Salaries	9,961,117	10,864,358	9,207,303
Present Value of Future Member Contributions	498,056	543,218	460,365
Total Normal Cost	241,122	377,879	159,397
Present Value of Future Normal Costs (Entry Age Normal)	1,476,231	2,555,183	891,632
Total Actuarial Accrued Liability <sup>1</sup>	16,658,723	20,785,020	13,772,961
Unfunded Actuarial Accrued Liability (UAAL)	2,681,255	6,807,552	(204,507)

ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR  
ENDING SEPTEMBER 30, 2020

Valuation Date: 10/1/2018

	ACTUAL	HYPOTHETICAL	
	7.75% RP-2000 Generational	5.75% RP-2000 Generational	9.75% RP-2000 Generational
<b><u>PENSION COST</u></b>			
Normal Cost (with interest)	245,794	383,311	163,282
Administrative Expenses (with interest)	39,747	39,553	39,942
Payment Required To Amortize UAAL (with interest)	389,389	641,122	138,628
Total Required Contribution	\$674,930	\$1,063,986	\$341,852

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2018.