

**City of Marathon Firefighters' Pension Plan and Trust Fund**  
**Actuarial Valuation as of October 1, 2019**  
**Other Measurements**

**Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.003**

**October 1, 2019**

	GASB 67/68	- 200 bp <sup>1</sup>	Funding Rate <sup>1</sup>	+ 200 bp <sup>1</sup>
	7.50%	5.25%	7.25%	9.25%
Total pension liability				
Service Cost	\$646,079	\$641,056	\$641,056	\$641,056
Interest	523,895	382,149	527,729	673,310
Benefit changes	0	0	0	0
Difference between expected and actual experience	366,599	(644,854)	(644,854)	(644,854)
Changes in assumptions	(50,801)	3,209,355	172,269	(1,842,194)
Benefit payments	(23,951)	(23,951)	(23,951)	(23,951)
Contribution refunds	0	0	0	0
Net change in pension liability	\$1,461,821	\$3,563,755	\$672,249	(\$1,196,633)
Total pension liability, beginning of year	\$6,351,157	\$6,649,946	\$6,649,946	\$6,649,946
Total pension liability, end of year	\$7,812,978	\$10,213,701	\$7,322,195	\$5,453,313
Plan fiduciary net position				
Contributions - Employer	\$185,139	\$185,139	\$185,139	\$185,139
Contributions - State	150,076	150,076	150,076	150,076
Contributions - Member	99,496	99,496	99,496	99,496
Net investment income	497,134	497,134	497,134	497,134
Benefit payments	(23,951)	(23,951)	(23,951)	(23,951)
Contribution refunds	0	0	0	0
Administrative expense	(48,082)	(48,082)	(48,082)	(48,082)
Other	0	0	0	0
Net change in plan fiduciary net position	\$859,812	\$859,812	\$859,812	\$859,812
Plan fiduciary net position, beginning of year	8,874,070	\$8,874,070	\$8,874,070	\$8,874,070
Plan fiduciary net position, end of year	\$9,733,882	\$9,733,882	\$9,733,882	\$9,733,882
Net pension liability/(asset)	(\$1,920,904)	\$479,819	(\$2,411,687)	(\$4,280,569)
Funded ratio	124.59%	95.30%	132.94%	178.49%
Years that Assets support expected benefit payments	30	22	29	100
Estimated city contribution				
Annual dollar value	\$119,069	\$995,928	\$199,270	\$0
Percentage of payroll	6.12%	51.20%	10.25%	0.00%

<sup>1</sup> Based on valuation assumption with the following changes  
 -Interest rate (as noted)

Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.0035

October 1, 2019

**Sustainment of Expected Benefit Payments**

Mortality            GASB 67/68  
Interest             7.50%

<u>Year</u>	<u>Market Value of</u> <u>Assets</u>	<u>Investment</u> <u>Return</u>	<u>Benefit</u> <u>Payments</u>	<u>Year</u>	<u>Market Value of</u> <u>Assets</u>	<u>Investment</u> <u>Return</u>	<u>Benefit</u> <u>Payments</u>
1	\$9,733,882	\$728,700	\$36,431	30	\$3,340,092	\$170,834	\$2,163,716
2	10,426,151	780,315	44,723	31	\$1,347,210		\$2,166,356
3	11,161,743	835,441	45,890				
4	11,951,294	894,106	60,857				
5	12,784,543	951,803	191,122				
6	13,545,224	1,002,544	362,505				
7	14,185,263	1,050,332	368,331				
8	14,867,264	1,101,262	374,300				
9	15,594,226	1,143,702	702,421				
10	16,035,507	1,175,076	749,195				
11	16,461,388	1,203,238	851,819				
12	16,812,807	1,229,186	862,909				
13	17,179,084	1,253,666	944,153				
14	17,488,597	1,275,164	990,739				
15	17,773,022	1,290,220	1,161,174				
16	17,902,068	1,294,101	1,318,609				
17	17,877,560	1,287,739	1,441,486				
18	17,723,813	1,266,733	1,698,802				
19	17,291,744	1,227,386	1,887,313				
20	16,631,817	1,174,525	1,978,749				
21	15,827,593	1,110,714	2,073,626				
22	14,864,681	1,037,709	2,094,997				
23	13,807,393	957,827	2,110,882				
24	12,654,338	870,173	2,142,810				
25	11,381,701	774,423	2,151,003				
26	10,005,121	670,989	2,156,170				
27	8,519,940	559,331	2,163,487				
28	6,915,784	439,051	2,162,641				
29	5,192,194	309,809	2,161,911				

Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.0035

October 1, 2019

**Sustainment of Expected Benefit Payments**

Mortality FRS Special Risk Generational  
 Interest 5.25%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$9,733,882	\$510,090	\$36,228
2	10,207,744	534,754	44,459
3	10,698,039	560,468	45,512
4	11,212,995	587,114	60,532
5	11,739,577	611,377	191,033
6	12,159,921	628,993	362,827
7	12,426,087	642,818	368,565
8	12,700,340	657,065	374,408
9	12,982,997	663,379	703,404
10	12,942,972	660,060	750,386
11	12,852,646	652,654	853,183
12	12,652,117	641,843	864,130
13	12,429,830	628,053	945,940
14	12,111,943	610,159	992,413
15	11,729,689	585,671	1,162,988
16	11,152,372	551,224	1,322,636
17	10,380,960	507,541	1,445,496
18	9,443,005	451,626	1,702,978
19	8,191,653	380,948	1,895,237
20	6,677,364	299,092	1,986,139
21	4,990,317	208,066	2,080,944
22	3,117,439	109,215	2,101,186
23	1,125,468		2,115,444

Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.0035

October 1, 2019

**Sustainment of Expected Benefit Payments**

Mortality FRS Special Risk Generational  
Interest 7.25%

Year	Market Value of Assets	Investment Return	Benefit Payments	Year	Market Value of Assets	Investment Return	Benefit Payments
1	\$9,733,882	\$704,416	\$36,228	30	\$156,128		\$2,153,308
2	10,402,070	752,567	44,459				
3	11,110,178	803,867	45,512				
4	11,868,533	858,313	60,532				
5	12,666,314	911,504	191,033				
6	13,386,785	957,620	362,827				
7	13,981,578	1,000,538	368,565				
8	14,613,551	1,046,148	374,408				
9	15,285,291	1,083,131	703,404				
10	15,665,018	1,108,988	750,386				
11	16,023,620	1,131,326	853,183				
12	16,301,763	1,151,101	864,130				
13	16,588,734	1,168,993	945,940				
14	16,811,787	1,183,509	992,413				
15	17,002,883	1,191,288	1,162,988				
16	17,031,183	1,187,654	1,322,636				
17	16,896,201	1,173,492	1,445,496				
18	16,624,197	1,144,601	1,702,978				
19	16,065,820	1,097,272	1,895,237				
20	15,267,855	1,036,182	1,986,139				
21	14,317,898	963,933	2,080,944				
22	13,200,887	882,229	2,101,186				
23	11,981,930	793,347	2,115,444				
24	10,659,833	696,414	2,145,787				
25	9,210,460	591,044	2,153,942				
26	7,647,562	477,613	2,157,348				
27	5,967,827	355,650	2,162,463				
28	4,161,014	224,787	2,158,785				
29	2,227,016	84,686	2,155,574				

Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.0035

October 1, 2019

Sustainment of Expected Benefit Payments

Mortality FRS Special Risk Generational  
Interest 9.25%

Year	Market Value of Assets	Investment Return	Benefit Payments	Year	Market Value of Assets	Investment Return	Benefit Payments
1	\$9,733,882	\$898,746	\$36,228	30	\$33,531,609	\$3,004,286	\$2,153,308
2	10,596,400	978,156	44,459	31	34,382,587	3,083,131	2,150,427
3	11,530,097	1,064,476	45,512	32	35,315,291	3,169,594	2,146,283
4	12,549,061	1,158,050	60,532	33	36,338,602	3,264,565	2,139,329
5	13,646,579	1,253,669	191,033	34	37,463,838	3,369,102	2,129,318
6	14,709,215	1,344,193	362,827	35	38,703,622	3,484,385	2,115,992
7	15,690,581	1,434,710	368,565	36	40,072,015	3,611,725	2,099,088
8	16,756,726	1,533,064	374,408	37	41,584,652	3,752,582	2,078,360
9	17,915,382	1,625,360	703,404	38	43,258,874	3,908,566	2,053,619
10	18,837,338	1,708,516	750,386	39	45,113,821	4,081,455	2,024,731
11	19,795,468	1,792,494	853,183	40	47,170,545	4,273,200	1,991,618
12	20,734,779	1,878,885	864,130	41	49,452,127	4,485,936	1,954,253
13	21,749,534	1,969,050	945,940	42	51,983,810	4,721,997	1,912,682
14	22,772,644	2,061,585	992,413	43	54,793,125	4,983,926	1,866,978
15	23,841,816	2,152,769	1,162,988	44	57,910,073	5,274,495	1,817,190
16	24,831,597	2,237,104	1,322,636	45	61,367,378	5,596,728	1,763,421
17	25,746,065	2,316,135	1,445,496	46	65,200,685	5,953,914	1,705,824
18	26,616,704	2,385,024	1,702,978	47	69,448,775	6,349,630	1,644,617
19	27,298,750	2,439,418	1,895,237	48	74,153,788	6,787,761	1,580,122
20	27,842,931	2,485,644	1,986,139	49	79,361,427	7,272,515	1,512,731
21	28,342,436	2,527,560	2,080,944	50	85,121,211	7,808,456	1,442,838
22	28,789,052	2,567,956	2,101,186	51	91,486,829	8,400,532	1,370,848
23	29,255,822	2,610,488	2,115,444	52	98,516,513	9,054,110	1,297,169
24	29,750,866	2,654,907	2,145,787	53	106,273,454	9,775,020	1,222,156
25	30,259,986	2,701,632	2,153,942	54	114,826,318	10,569,597	1,146,146
26	30,807,676	2,752,139	2,157,348	55	124,249,769	11,444,733	1,069,513
27	31,402,467	2,806,926	2,162,463	56	134,624,989	12,407,913	992,727
28	32,046,930	2,866,705	2,158,785	57	146,040,175	13,467,270	916,404
29	32,754,850	2,932,333	2,155,574	58	158,591,041	14,631,628	841,163