

CITY OF MIRAMAR
FIREFIGHTERS' RETIREMENT PLAN
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 Section 60T-1.0035, Florida Administrative Code.

By:



Date:

10/6/2022

Donald A. DuLaney, Jr. A.S.A.
Senior Consulting Actuary
Enrolled Actuary #20-4191

DuLaney and Company



When reviewing the report, please note the following:

DuLaney and Company has prepared this report in order to satisfy the requirements set forth under Florida Statutes (FS) 112.664 and Ch. 60T-1.0035, F.A.C. These schedules have no impact on the funding requirements of the Plan. We have uploaded the semi-colon delimited file as described under Ch. 60T-1.0035.

The actuarial funding assumptions shown in our October 1, 2021 actuarial valuation report have been used in the preparation of this report, except as required for certain disclosures herein.

This report contains figures using an investment return assumption that is 2.0% higher than the actual funding assumption, in order to provide a balanced view, in light of the requirement to use an investment return assumption that is 2.0% lower than the actual funding assumption.

The schedules showing the projected number of years until the Fund becomes insolvent are required, but do not reflect what will occur. This is because no future contributions from any current funding source are assumed, as required for these disclosures, contrary to Florida Statutes.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

	Actual	Under Section 112.664(1)(a), F.S.	Under Section 112.664(1)(b), F.S.	Under Section 112.664(1)(b), F.S.
	Discount Rate: 7.25%	Discount Rate: 7.25%	Discount Rate: 5.25%	Discount Rate: 9.25%
	FRS 7/1/2021 Mortality 9/30/2021	FRS 7/1/2021 Mortality 9/30/2021	FRS 7/1/2021 Mortality 9/30/2021	FRS 7/1/2021 Mortality 9/30/2021
1. Total pension liability:				
a. Service cost	\$ 3,265,027	\$ 3,265,027	\$ 5,390,200	\$ 2,059,313
b. Interest	\$ 17,170,241	\$ 17,170,241	\$ 15,874,599	\$ 17,950,720
c. Benefit changes	\$ -	\$ -	\$ -	\$ -
d. Difference between expected and actual experience	\$ 9,631,618	\$ 9,631,618	\$ 13,519,052	\$ 7,080,349
e. Changes in assumptions	\$ 2,507,368	\$ 2,507,368	\$ 3,901,639	\$ 1,683,953
f. Benefit payments	\$ (6,527,261)	\$ (6,527,261)	\$ (6,527,261)	\$ (6,527,261)
g. Contribution refunds	\$ -	\$ -	\$ -	\$ -
h. Net change in total pension liability	\$ 26,046,993	\$ 26,046,993	\$ 32,158,229	\$ 22,247,074
i. Total pension liability – beginning	\$ 234,322,152	\$ 234,322,152	\$ 296,345,109	\$ 193,582,197
j. Total pension liability – ending	\$ 260,369,145	\$ 260,369,145	\$ 328,503,338	\$ 215,829,271
2. Plan fiduciary net position:				
a. Contributions – City	\$ 9,472,862	\$ 9,472,862	\$ 9,472,862	\$ 9,472,862
b. Contributions – State	\$ 1,283,870	\$ 1,283,870	\$ 1,283,870	\$ 1,283,870
c. Contributions – Member	\$ 1,798,133	\$ 1,798,133	\$ 1,798,133	\$ 1,798,133
d. Net investment income	\$ 44,813,984	\$ 44,813,984	\$ 44,813,984	\$ 44,813,984
e. Benefit payments	\$ (6,527,261)	\$ (6,527,261)	\$ (6,527,261)	\$ (6,527,261)
f. Contributions refunds	\$ -	\$ -	\$ -	\$ -
g. Administrative expense	\$ (190,233)	\$ (190,233)	\$ (190,233)	\$ (190,233)
h. Other	\$ -	\$ -	\$ -	\$ -
i. Net change in plan fiduciary net position	\$ 50,651,355	\$ 50,651,355	\$ 50,651,355	\$ 50,651,355
j. Plan fiduciary net position – beginning	\$ 185,172,037	\$ 185,172,037	\$ 185,172,037	\$ 185,172,037
k. Plan fiduciary net position – ending	\$ 235,823,392	\$ 235,823,392	\$ 235,823,392	\$ 235,823,392
3. Net pension liability/(asset) [1.j. minus 2.k.]	\$ 24,545,753	\$ 24,545,753	\$ 92,679,946	\$ (19,994,121)



PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Plan Assumptions: 7.25% and FRS 7/1/2021 Mortality

<u>Year</u>	<u>Projected Beginning Fiduciary Net Position</u>	<u>Projected Benefit Payments</u>	<u>Projected Investment Earnings</u>	<u>Projected Ending Fiduciary Net Position</u>
10/1/2021	\$183,643,908	\$9,572,833	\$12,967,168	\$187,038,243
10/1/2022	\$187,038,243	\$9,944,455	\$13,199,786	\$190,293,574
10/1/2023	\$190,293,574	\$10,385,434	\$13,419,812	\$193,327,952
10/1/2024	\$193,327,952	\$11,185,130	\$13,610,816	\$195,753,638
10/1/2025	\$195,753,638	\$11,943,513	\$13,759,186	\$197,569,311
10/1/2026	\$197,569,311	\$12,439,112	\$13,872,857	\$199,003,057
10/1/2027	\$199,003,057	\$13,450,126	\$13,940,155	\$199,493,085
10/1/2028	\$199,493,085	\$13,797,736	\$13,963,081	\$199,658,430
10/1/2029	\$199,658,430	\$14,156,782	\$13,962,053	\$199,463,701
10/1/2030	\$199,463,701	\$14,744,389	\$13,926,634	\$198,645,946
10/1/2031	\$198,645,946	\$15,118,337	\$13,853,791	\$197,381,400
10/1/2032	\$197,381,400	\$15,485,827	\$13,748,790	\$195,644,364
10/1/2033	\$195,644,364	\$15,940,807	\$13,606,362	\$193,309,919
10/1/2034	\$193,309,919	\$16,240,068	\$13,426,267	\$190,496,117
10/1/2035	\$190,496,117	\$16,593,773	\$13,209,444	\$187,111,789
10/1/2036	\$187,111,789	\$16,864,861	\$12,954,253	\$183,201,181
10/1/2037	\$183,201,181	\$17,120,214	\$12,661,478	\$178,742,445
10/1/2038	\$178,742,445	\$17,454,241	\$12,326,111	\$173,614,315
10/1/2039	\$173,614,315	\$17,685,853	\$11,945,926	\$167,874,388
10/1/2040	\$167,874,388	\$17,946,371	\$11,520,337	\$161,448,354
10/1/2041	\$161,448,354	\$18,115,063	\$11,048,335	\$154,381,626
10/1/2042	\$154,381,626	\$18,312,207	\$10,528,850	\$146,598,269
10/1/2043	\$146,598,269	\$18,428,958	\$9,960,325	\$138,129,636
10/1/2044	\$138,129,636	\$18,492,821	\$9,344,034	\$128,980,848
10/1/2045	\$128,980,848	\$18,511,182	\$8,680,081	\$119,149,748
10/1/2046	\$119,149,748	\$18,484,885	\$7,968,280	\$108,633,142



PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Plan Assumptions: 7.25% and FRS 7/1/2021 Mortality

10/1/2047	\$108,633,142	\$18,392,165	\$7,209,187	\$97,450,164
10/1/2048	\$97,450,164	\$18,245,190	\$6,403,749	\$85,608,723
10/1/2049	\$85,608,723	\$18,048,519	\$5,552,374	\$73,112,577
10/1/2050	\$73,112,577	\$17,796,459	\$4,655,540	\$59,971,659
10/1/2051	\$59,971,659	\$17,487,593	\$3,714,020	\$46,198,086
10/1/2052	\$46,198,086	\$17,121,101	\$2,728,721	\$31,805,706
10/1/2053	\$31,805,706	\$16,701,261	\$1,700,493	\$16,804,938
10/1/2054	\$16,804,938	\$16,229,649	\$630,033	\$1,205,322
10/1/2055	\$1,205,322	\$15,709,381		

Number of Years Expected Benefit Payments Sustained: 34.08

Note: As required in Section 112.664(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.

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Plan Assumptions: 7.25% and FRS 7/1/2021 Mortality

<u>Year</u>	<u>Projected Beginning Fiduciary Net Position</u>	<u>Projected Benefit Payments</u>	<u>Projected Investment Earnings</u>	<u>Projected Ending Fiduciary Net Position</u>
10/1/2021	\$183,643,908	\$9,572,833	\$12,967,168	\$187,038,243
10/1/2022	\$187,038,243	\$9,944,455	\$13,199,786	\$190,293,574
10/1/2023	\$190,293,574	\$10,385,434	\$13,419,812	\$193,327,952
10/1/2024	\$193,327,952	\$11,185,130	\$13,610,816	\$195,753,638
10/1/2025	\$195,753,638	\$11,943,513	\$13,759,186	\$197,569,311
10/1/2026	\$197,569,311	\$12,439,112	\$13,872,857	\$199,003,057
10/1/2027	\$199,003,057	\$13,450,126	\$13,940,155	\$199,493,085
10/1/2028	\$199,493,085	\$13,797,736	\$13,963,081	\$199,658,430
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10/1/2030	\$199,463,701	\$14,744,389	\$13,926,634	\$198,645,946
10/1/2031	\$198,645,946	\$15,118,337	\$13,853,791	\$197,381,400
10/1/2032	\$197,381,400	\$15,485,827	\$13,748,790	\$195,644,364
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10/1/2036	\$187,111,789	\$16,864,861	\$12,954,253	\$183,201,181
10/1/2037	\$183,201,181	\$17,120,214	\$12,661,478	\$178,742,445
10/1/2038	\$178,742,445	\$17,454,241	\$12,326,111	\$173,614,315
10/1/2039	\$173,614,315	\$17,685,853	\$11,945,926	\$167,874,388
10/1/2040	\$167,874,388	\$17,946,371	\$11,520,337	\$161,448,354
10/1/2041	\$161,448,354	\$18,115,063	\$11,048,335	\$154,381,626
10/1/2042	\$154,381,626	\$18,312,207	\$10,528,850	\$146,598,269
10/1/2043	\$146,598,269	\$18,428,958	\$9,960,325	\$138,129,636
10/1/2044	\$138,129,636	\$18,492,821	\$9,344,034	\$128,980,848
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10/1/2046	\$119,149,748	\$18,484,885	\$7,968,280	\$108,633,142

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Plan Assumptions: 7.25% and FRS 7/1/2021 Mortality

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10/1/2049	\$85,608,723	\$18,048,519	\$5,552,374	\$73,112,577
10/1/2050	\$73,112,577	\$17,796,459	\$4,655,540	\$59,971,659
10/1/2051	\$59,971,659	\$17,487,593	\$3,714,020	\$46,198,086
10/1/2052	\$46,198,086	\$17,121,101	\$2,728,721	\$31,805,706
10/1/2053	\$31,805,706	\$16,701,261	\$1,700,493	\$16,804,938
10/1/2054	\$16,804,938	\$16,229,649	\$630,033	\$1,205,322
10/1/2055	\$1,205,322	\$15,709,381		

Number of Years Expected Benefit Payments Sustained: 34.08

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PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Plan Assumptions: 5.25% and FRS 7/1/2021 Mortality

<u>Year</u>	<u>Projected Beginning Fiduciary Net Position</u>	<u>Projected Benefit Payments</u>	<u>Projected Investment Earnings</u>	<u>Projected Ending Fiduciary Net Position</u>
10/1/2021	\$183,643,908	\$9,572,833	\$9,390,018	\$183,461,093
10/1/2022	\$183,461,093	\$9,944,455	\$9,370,665	\$182,887,304
10/1/2023	\$182,887,304	\$10,385,434	\$9,328,966	\$181,830,836
10/1/2024	\$181,830,836	\$11,185,130	\$9,252,509	\$179,898,215
10/1/2025	\$179,898,215	\$11,943,513	\$9,131,139	\$177,085,841
10/1/2026	\$177,085,841	\$12,439,112	\$8,970,480	\$173,617,209
10/1/2027	\$173,617,209	\$13,450,126	\$8,761,838	\$168,928,920
10/1/2028	\$168,928,920	\$13,797,736	\$8,506,578	\$163,637,762
10/1/2029	\$163,637,762	\$14,156,782	\$8,219,367	\$157,700,347
10/1/2030	\$157,700,347	\$14,744,389	\$7,892,228	\$150,848,186
10/1/2031	\$150,848,186	\$15,118,337	\$7,522,673	\$143,252,523
10/1/2032	\$143,252,523	\$15,485,827	\$7,114,254	\$134,880,950
10/1/2033	\$134,880,950	\$15,940,807	\$6,662,804	\$125,602,947
10/1/2034	\$125,602,947	\$16,240,068	\$6,167,853	\$115,530,732
10/1/2035	\$115,530,732	\$16,593,773	\$5,629,777	\$104,566,736
10/1/2036	\$104,566,736	\$16,864,861	\$5,047,051	\$92,748,926
10/1/2037	\$92,748,926	\$17,120,214	\$4,419,913	\$80,048,625
10/1/2038	\$80,048,625	\$17,454,241	\$3,744,379	\$66,338,763
10/1/2039	\$66,338,763	\$17,685,853	\$3,018,531	\$51,671,441
10/1/2040	\$51,671,441	\$17,946,371	\$2,241,658	\$35,966,728
10/1/2041	\$35,966,728	\$18,115,063	\$1,412,733	\$19,264,398
10/1/2042	\$19,264,398	\$18,312,207	\$530,685	\$1,482,877
10/1/2043	\$1,482,877	\$18,428,958		



PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Plan Assumptions: 5.25% and FRS 7/1/2021 Mortality

Number of Years Expected Benefit Payments Sustained: 22.08

Note: As required in Section 112.664(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.

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Plan Assumptions: 9.25% and FRS 7/1/2021 Mortality

<u>Year</u>	<u>Projected Beginning Fiduciary Net Position</u>	<u>Projected Benefit Payments</u>	<u>Projected Investment Earnings</u>	<u>Projected Ending Fiduciary Net Position</u>
10/1/2021	\$183,643,908	\$9,572,833	\$16,544,318	\$190,615,393
10/1/2022	\$190,615,393	\$9,944,455	\$17,171,993	\$197,842,931
10/1/2023	\$197,842,931	\$10,385,434	\$17,820,145	\$205,277,642
10/1/2024	\$205,277,642	\$11,185,130	\$18,470,870	\$212,563,381
10/1/2025	\$212,563,381	\$11,943,513	\$19,109,725	\$219,729,593
10/1/2026	\$219,729,593	\$12,439,112	\$19,749,678	\$227,040,160
10/1/2027	\$227,040,160	\$13,450,126	\$20,379,146	\$233,969,180
10/1/2028	\$233,969,180	\$13,797,736	\$21,004,004	\$241,175,448
10/1/2029	\$241,175,448	\$14,156,782	\$21,653,978	\$248,672,644
10/1/2030	\$248,672,644	\$14,744,389	\$22,320,292	\$256,248,547
10/1/2031	\$256,248,547	\$15,118,337	\$23,003,767	\$264,133,977
10/1/2032	\$264,133,977	\$15,485,827	\$23,716,173	\$272,364,323
10/1/2033	\$272,364,323	\$15,940,807	\$24,456,438	\$280,879,954
10/1/2034	\$280,879,954	\$16,240,068	\$25,230,293	\$289,870,179
10/1/2035	\$289,870,179	\$16,593,773	\$26,045,530	\$299,321,935
10/1/2036	\$299,321,935	\$16,864,861	\$26,907,279	\$309,364,353
10/1/2037	\$309,364,353	\$17,120,214	\$27,824,393	\$320,068,532
10/1/2038	\$320,068,532	\$17,454,241	\$28,799,081	\$331,413,372
10/1/2039	\$331,413,372	\$17,685,853	\$29,837,766	\$343,565,285
10/1/2040	\$343,565,285	\$17,946,371	\$30,949,769	\$356,568,683
10/1/2041	\$356,568,683	\$18,115,063	\$32,144,782	\$370,598,402
10/1/2042	\$370,598,402	\$18,312,207	\$33,433,413	\$385,719,607
10/1/2043	\$385,719,607	\$18,428,958	\$34,826,724	\$402,117,374
10/1/2044	\$402,117,374	\$18,492,821	\$36,340,564	\$419,965,117
10/1/2045	\$419,965,117	\$18,511,182	\$37,990,631	\$439,444,566
10/1/2046	\$439,444,566	\$18,484,885	\$39,793,696	\$460,753,377



PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Plan Assumptions: 9.25% and FRS 7/1/2021 Mortality

10/1/2047	\$460,753,377	\$18,392,165	\$41,769,050	\$484,130,262
10/1/2048	\$484,130,262	\$18,245,190	\$43,938,209	\$509,823,281
10/1/2049	\$509,823,281	\$18,048,519	\$46,323,909	\$538,098,672
10/1/2050	\$538,098,672	\$17,796,459	\$48,951,041	\$569,253,253
10/1/2051	\$569,253,253	\$17,487,593	\$51,847,125	\$603,612,785
10/1/2052	\$603,612,785	\$17,121,101	\$55,042,332	\$641,534,016
10/1/2053	\$641,534,016	\$16,701,261	\$58,569,463	\$683,402,218
10/1/2054	\$683,402,218	\$16,229,649	\$62,464,084	\$729,636,653
10/1/2055	\$729,636,653	\$15,709,381	\$66,764,832	\$780,692,103
10/1/2056	\$780,692,103	\$15,143,220	\$71,513,646	\$837,062,529
10/1/2057	\$837,062,529	\$14,535,056	\$76,756,038	\$899,283,511
10/1/2058	\$899,283,511	\$13,890,408	\$82,541,293	\$967,934,396
10/1/2059	\$967,934,396	\$13,215,158	\$88,922,731	\$1,043,641,969
10/1/2060	\$1,043,641,969	\$12,515,274	\$95,958,051	\$1,127,084,745
10/1/2061	\$1,127,084,745	\$11,797,937	\$103,709,684	\$1,218,996,493
10/1/2062	\$1,218,996,493	\$11,070,621	\$112,245,159	\$1,320,171,031
10/1/2063	\$1,320,171,031	\$10,341,037	\$121,637,547	\$1,431,467,541
10/1/2064	\$1,431,467,541	\$9,616,386	\$131,965,990	\$1,553,817,145

Number of Years Expected Benefit Payments Sustained: 999.99

Note: As required in Section 112.664(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.



ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR
 ENDING SEPTEMBER 30, 2022
 Valuation Date: 10/1/2021

PENSION COST	<u>ACTUAL</u>	Interest Rate: 7.25% FRS 7/1/2021 Mortality	Interest Rate: 5.25% FRS 7/1/2021 Mortality	Interest Rate: 9.25% FRS 7/1/2021 Mortality
	Interest Rate: 7.25% FRS 7/1/2021 Mortality			
Normal Cost	3,297,827	3,297,827	5,467,539	2,072,991
Administrative Expenses	190,233	190,233	190,233	190,233
Payment Required to Amortize UAAL	6,669,278	6,669,278	12,572,739	1,982,027
Interest Adjustment	499,909	499,909	714,320	240,108
Total Required Contribution (TRC)	10,657,247	10,657,247	18,944,831	4,485,359
TRC as % of Payroll	111.22% ¹	111.22% ¹	197.71% ²	46.81% ³

¹ Only 68.37% of active and DROP members' payroll of \$15,588,618.

² Only 121.53% of active and DROP members' payroll of \$15,588,618.

³ Only 28.77% of active and DROP members' payroll of \$15,588,618.

