

City of Starke Firefighters' Retirement System

CHAPTER 112.664, F.S. COMPLIANCE REPORT

In Connection with the October 1, 2022 Funding Actuarial Valuation Report and the System's Financial Reporting for the Year Ended September 30, 2022





August 29, 2023

Board of Trustees
c/o Mr. Scott Baur
Resource Centers, LLC
City of Starke Firefighters' Retirement System
4360 Northlake Blvd. Suite 206
Palm Beach Gardens, Florida 33410

Re: October 1, 2022 Chapter 112.664 Compliance Report

Dear Board Members:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the Board of Trustees (Board) of the City of Starke Firefighters' Retirement System (System) to prepare a disclosure report to satisfy the requirements set forth in Chapter 112.664, F.S. and as further required pursuant to Chapter 60T-1.0035, F.A.C.

This report was prepared at the request of the Board and is intended for use by the Board and those designated or approved by the Board. This report may be provided to parties other than the Board 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 Chapter 112.664, F.S. and to supplement this information with additional exhibits. This report should not be relied on for any purpose other than the purpose described above.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System 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 System's funded status); and changes in System 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 System benefits, System provisions and System members as used in the corresponding Actuarial Valuation Reports for the Valuation Dates indicated. Financial information was provided by the City and Board as of September 30, 2022. We reviewed the information provided for internal and year-to-year consistency, but did not audit the data. The System is responsible for the accuracy of the data.

Except where specific assumptions are required by Chapter 112.664, F.S, this report was prepared using actuarial assumptions adopted by the Board as described in Section C. The economic and non-prescribed demographic actuarial assumptions are based upon the results of an actuarial experience study for the period October 1, 2014 – September 30, 2019. The mortality assumptions are prescribed by statute. Each assumption represents an estimate of future System experience.

The investment return assumption of 2% higher than the investment return assumption utilized in the Actuarial Valuation Report does not represent an estimate of future System experience nor observation of the estimates inherent in market data. This assumption is provided as a counterpart to the Chapter 112.664, F.S. requirement to utilize an investment return assumption of 2% lower than the investment return assumption utilized in the Actuarial Valuation Report. The inclusion of the additional 2% higher assumption shows a more complete assessment of the range of potential results as opposed to the *one-sided* range required by statute.

If all actuarial assumptions are met and if all current and future minimum required contributions are paid System assets will be sufficient to pay all System benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expected to improve. System minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act and Firefighters Retirement Chapter 175 with normal cost determined as a level percent of covered payroll and a level percent of pay amortization payment using a maximum amortization period of 30 years.

The System's funded ratio as of October 1, 2022 is 70.4% defined as the ratio of the market value of System assets to the actuarial accrued liability.

The System's funded ratio and the GASB Net Pension Liability may not be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

The undersigned 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 System sponsor.

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 presents the actuarial position of the System as of the valuation date as required by statute. 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.

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 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.

Sincerely,

GABRIEL, ROEDER, SMITH AND COMPANY

By Michelle Jones
Shelly L. Jones, M.A.A.A.
Enrolled Actuary No. 23-08646
Consultant & Actuary

By Jennifer Borregard
Jennifer M. Borregard, M.A.A.A.
Enrolled Actuary No. 23-07624
Consultant & Actuary



TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
A	Chapter 112.664, F.S. Results	
	Net Pension Liability	
	1. Using financial reporting assumptions per GASB Statement No. 67 and No. 68 and using assumptions required under Section 112.664(1)(a), F.S.	1
	2. Using assumptions required under Section 112.664(1)(b), F.S.	2
	3. Using assumptions required under Section 112.664(1)(a), F.S. plus 2%	3
	Asset and Benefit Payments Projection	
	1. Using financial reporting assumptions per GASB Statement No. 67 and No. 68 and using assumptions required under Section 112.664(1)(a), F.S.	4
	2. Using assumptions required under Section 112.664(1)(b), F.S.	5
	3. Using assumptions required under Section 112.664(1)(a), F.S. plus 2%	6
	Actuarially Determined Contribution	7
	Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments	8
B	Summary of System Provisions	10
C	Actuarial Assumptions and Cost Methods Used for Funding	14
D	Glossary	19

SECTION A

CHAPTER 112.664, F.S. RESULTS

Net Pension Liability
Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68
and Using Assumptions Required Under 112.664(1)(a), F.S.

Measurement Date	September 30, 2022
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 136,921
Interest	365,494
Benefit Changes	0
Difference Between Actual and Expected Experience	42,247
Assumption Changes	0
Benefit Payments	(213,871)
Contribution Refunds	0
Other	0
Net Change in Total Pension Liability	\$ 330,791
Total Pension Liability (TPL) - (beginning of year)	5,455,790
Total Pension Liability (TPL) - (end of year)	\$ 5,786,581
B. <u>System Fiduciary Net Position</u>	
Contributions - City	\$ 287,498
Contributions - State	0
Contributions - Member	34,334
Net Investment Income	(695,894)
Benefit Payments	(213,871)
Contribution Refunds	0
Administrative Expenses	(54,119)
Other	(3,069)
Net Change in System Fiduciary Net Position	\$ (645,121)
System Fiduciary Net Position - (beginning of year)	5,035,267
System Fiduciary Net Position - (end of year)	\$ 4,390,146
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 1,396,435
Valuation Date	October 1, 2021

Certain Key Assumptions

Investment Return Assumption 7.25%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.



Net Pension Liability
Using Assumptions Required Under 112.664(1)(b), F.S.

Measurement Date	September 30, 2022
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 225,221
Interest	344,037
Benefit Changes	0
Difference Between Actual and Expected Experience	81,362
Assumption Changes	0
Benefit Payments	(213,871)
Contribution Refunds	0
Other	0
Net Change in Total Pension Liability	\$ 436,749
Total Pension Liability (TPL) - (beginning of year)	6,962,396
Total Pension Liability (TPL) - (end of year)	\$ 7,399,145
B. <u>System Fiduciary Net Position</u>	
Contributions - City	\$ 287,498
Contributions - State	0
Contributions - Member	34,334
Net Investment Income	(695,894)
Benefit Payments	(213,871)
Contribution Refunds	0
Administrative Expenses	(54,119)
Other	(3,069)
Net Change in System Fiduciary Net Position	\$ (645,121)
System Fiduciary Net Position - (beginning of year)	5,035,267
System Fiduciary Net Position - (end of year)	\$ 4,390,146
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 3,008,999
Valuation Date	October 1, 2021

Certain Key Assumptions

Investment Return Assumption 5.25%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.



Net Pension Liability

Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

Measurement Date	September 30, 2022
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 85,287
Interest	367,696
Benefit Changes	0
Difference Between Actual and Expected Experience	13,904
Assumption Changes	0
Benefit Payments	(213,871)
Contribution Refunds	0
Other	0
Net Change in Total Pension Liability	\$ 253,016
Total Pension Liability (TPL) - (beginning of year)	4,400,194
Total Pension Liability (TPL) - (end of year)	\$ 4,653,210
B. <u>System Fiduciary Net Position</u>	
Contributions - City	\$ 287,498
Contributions - State	0
Contributions - Member	34,334
Net Investment Income	(695,894)
Benefit Payments	(213,871)
Contribution Refunds	0
Administrative Expenses	(54,119)
Other	(3,069)
Net Change in System Fiduciary Net Position	\$ (645,121)
System Fiduciary Net Position - (beginning of year)	5,035,267
System Fiduciary Net Position - (end of year)	\$ 4,390,146
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 263,064
Valuation Date	October 1, 2021

Certain Key Assumptions

Investment Return Assumption 9.25%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.



Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68
and 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)
2023	\$ 4,183,187	\$ 294,407	\$ 228,408	\$ 4,249,186
2024	4,249,186	298,354	249,975	4,297,565
2025	4,297,565	301,106	269,433	4,329,238
2026	4,329,238	302,735	286,614	4,345,359
2027	4,345,359	303,349	300,883	4,347,825
2028	4,347,825	302,974	315,143	4,335,656
2029	4,335,656	301,358	334,024	4,302,990
2030	4,302,990	298,219	353,865	4,247,344
2031	4,247,344	293,514	371,119	4,169,739
2032	4,169,739	287,289	386,543	4,070,485
2033	4,070,485	279,430	403,586	3,946,329
2034	3,946,329	269,520	426,985	3,788,864
2035	3,788,864	257,242	449,160	3,596,946
2036	3,596,946	242,849	461,505	3,378,290
2037	3,378,290	226,739	468,130	3,136,899
2038	3,136,899	209,099	471,714	2,874,284
2039	2,874,284	190,008	473,035	2,591,257
2040	2,591,257	169,498	472,790	2,287,965
2041	2,287,965	147,538	472,038	1,963,465
2042	1,963,465	124,029	471,597	1,615,897
2043	1,615,897	98,939	468,806	1,246,030
2044	1,246,030	72,289	464,553	853,766
2045	853,766	44,026	460,019	437,773
2046	437,773	14,070	455,309	-
2047	-	-	448,134	-
2048	-	-	437,819	-
2049	-	-	427,907	-
2050	-	-	416,932	-
2051	-	-	404,582	-
2052	-	-	391,070	-

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 City, Members or State: 23.92

Certain Key Assumptions

Investment return assumption 7.25%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of System assets does not include future contributions from the City, Members or State. For this reason, this projection should not be viewed as representative of the amount of time the System can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the System is expected to be able to pay all future benefit payments.



Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
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)
2023	\$ 4,183,187	\$ 213,173	\$ 228,408	\$ 4,167,952
2024	4,167,952	211,764	249,975	4,129,741
2025	4,129,741	209,209	269,433	4,069,517
2026	4,069,517	205,563	286,614	3,988,466
2027	3,988,466	200,905	300,883	3,888,488
2028	3,888,488	195,254	315,143	3,768,599
2029	3,768,599	188,427	334,024	3,623,002
2030	3,623,002	180,223	353,865	3,449,360
2031	3,449,360	170,620	371,119	3,248,861
2032	3,248,861	159,659	386,543	3,021,977
2033	3,021,977	147,267	403,586	2,765,658
2034	2,765,658	133,150	426,985	2,471,823
2035	2,471,823	117,098	449,160	2,139,761
2036	2,139,761	99,316	461,505	1,777,572
2037	1,777,572	80,114	468,130	1,389,556
2038	1,389,556	59,642	471,714	977,484
2039	977,484	37,971	473,035	542,420
2040	542,420	15,137	472,790	84,767
2041	84,767	221	472,038	-
2042	-	-	471,597	-
2043	-	-	468,806	-
2044	-	-	464,553	-
2045	-	-	460,019	-
2046	-	-	455,309	-
2047	-	-	448,134	-
2048	-	-	437,819	-
2049	-	-	427,907	-
2050	-	-	416,932	-
2051	-	-	404,582	-
2052	-	-	391,070	-

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 City, Members or State: 18.17

Certain Key Assumptions

Investment return assumption 5.25%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of System assets does not include future contributions from the City, Members or State. For this reason, this projection should not be viewed as representative of the amount of time the System can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the System is expected to be able to pay all future benefit payments.



Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2023	\$ 4,183,187	\$ 375,655	\$ 228,408	\$ 4,330,434
2024	4,330,434	388,210	249,975	4,468,669
2025	4,468,669	400,035	269,433	4,599,271
2026	4,599,271	411,266	286,614	4,723,923
2027	4,723,923	422,091	300,883	4,845,131
2028	4,845,131	432,598	315,143	4,962,586
2029	4,962,586	442,529	334,024	5,071,091
2030	5,071,091	451,585	353,865	5,168,811
2031	5,168,811	459,772	371,119	5,257,464
2032	5,257,464	467,210	386,543	5,338,131
2033	5,338,131	473,829	403,586	5,408,374
2034	5,408,374	479,170	426,985	5,460,559
2035	5,460,559	482,901	449,160	5,494,300
2036	5,494,300	485,412	461,505	5,518,207
2037	5,518,207	487,296	468,130	5,537,373
2038	5,537,373	488,892	471,714	5,554,551
2039	5,554,551	490,415	473,035	5,571,931
2040	5,571,931	492,035	472,790	5,591,176
2041	5,591,176	493,852	472,038	5,612,990
2042	5,612,990	495,892	471,597	5,637,285
2043	5,637,285	498,277	468,806	5,666,756
2044	5,666,756	501,213	464,553	5,703,416
2045	5,703,416	504,829	460,019	5,748,226
2046	5,748,226	509,206	455,309	5,802,123
2047	5,802,123	514,546	448,134	5,868,535
2048	5,868,535	521,199	437,819	5,951,915
2049	5,951,915	529,402	427,907	6,053,410
2050	6,053,410	539,333	416,932	6,175,811
2051	6,175,811	551,265	404,582	6,322,494
2052	6,322,494	565,501	391,070	6,496,925

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 City, Members or State:

All Future Years

Certain Key Assumptions

Investment return assumption

9.25%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of System assets does not include future contributions from the City, Members or State. For this reason, this projection should not be viewed as representative of the amount of time the System can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the System is expected to be able to pay all future benefit payments.



ACTUARIALLY DETERMINED CONTRIBUTION

	Valuation Assumptions and 112.664(1)(a), F.S. Assumptions	112.664(1)(b), F.S. Assumptions	112.664(1)(a), F.S. Assumptions Plus 2% on Investment Return Assumption
A. Valuation Date	October 1, 2022	October 1, 2022	October 1, 2022
B. Actuarial Determined Contribution to Be Paid During Fiscal Year Ending	September 30, 2024	September 30, 2024	September 30, 2024
C. Annual Payroll of Active Employees	\$ 705,669	\$ 705,669	\$ 705,669
D. Total Minimum Funding Requirement			
1. Total Normal Cost	\$ 199,669	\$ 298,811	\$ 141,552
2. Annual Payment to Amortize Unfunded Actuarial Liability	93,243	148,232	31,553
3. Interest Adjustment	10,776	11,822	8,321
4. Total Minimum Funding Requirement	\$ 303,688	\$ 458,865	\$ 181,426
E. Expected Payroll of Active Employees for Following Plan Year (\$ / % of pay) (C x 1.040)	\$ 733,896 104.00%	\$ 733,896 104.00%	\$ 733,896 104.00%
F. Expected Contribution Sources (\$ / % of pay)			
1. City	\$ 248,650 33.88%	\$ 410,034 55.87%	\$ 121,497 16.56%
2. Member	36,938 5.03%	36,938 5.03%	36,938 5.03%
3. State	30,248 4.12%	30,248 4.12%	30,248 4.12%
4. Total	\$ 315,836 43.04%	\$ 477,220 65.03%	\$ 188,683 25.71%

Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments

	Amortization Base	Current Unfunded Liabilities	Amortization Payment			Remaining Funding Period
			Valuation and 112.664(1)(a), F.S. Assumptions	112.664(1)(b), F.S. Assumptions	112.664(1)(a), F.S. Assumptions Plus 2%	
10/01/1993	Actuarial Loss / (Gain)	\$ (228)	\$ (228)	\$ (228)	\$ (228)	1 year
10/01/1994	Actuarial Loss / (Gain)	1,132	575	569	580	2 years
10/01/1994	System Amendment	974	494	490	499	2 years
10/01/1995	Actuarial Loss / (Gain)	(904)	(311)	(305)	(316)	3 years
10/01/1995	Assumption and Method Change	3,038	1,044	1,025	1,063	3 years
10/01/1996	Actuarial Loss / (Gain)	195	51	50	52	4 years
10/01/1997	Actuarial Loss / (Gain)	(5,628)	(1,196)	(1,153)	(1,239)	5 years
10/01/1997	Assumption and Method Change	5,768	1,226	1,181	1,270	5 years
10/01/1998	Actuarial Loss / (Gain)	3,864	695	663	726	6 years
10/01/1999	Actuarial Loss / (Gain)	5,240	819	776	864	7 years
10/01/2000	Actuarial Loss / (Gain)	(764)	(106)	(100)	(113)	8 years
10/01/2001	Actuarial Loss / (Gain)	61,974	7,763	7,220	8,318	9 years
10/01/2001	System Amendment	10,476	1,312	1,220	1,406	9 years
10/01/2002	Actuarial Loss / (Gain)	47,833	5,472	5,045	5,911	10 years
10/01/2002	System Amendment	58,705	6,716	6,191	7,254	10 years
10/01/2003	Actuarial Loss / (Gain)	(46,964)	(4,956)	(4,529)	(5,396)	11 years
10/01/2003	System Amendment	3,632	383	350	417	11 years
10/01/2004	Actuarial Loss / (Gain)	5,458	536	485	588	12 years
10/01/2005	Actuarial Loss / (Gain)	71,817	6,601	5,929	7,299	13 years
10/01/2006	Actuarial Loss / (Gain)	(11,387)	(986)	(878)	(1,098)	14 years
10/01/2006	System Amendment	10,055	871	775	970	14 years
10/01/2007	Actuarial Loss / (Gain)	(23,456)	(1,923)	(1,698)	(2,158)	15 years
10/01/2008	Actuarial Loss / (Gain)	79,473	6,194	5,424	7,004	16 years
10/01/2009	Actuarial Loss / (Gain)	158,566	11,796	10,245	13,437	17 years
10/01/2009	Assumption Change	46,577	3,465	3,009	3,947	17 years
10/01/2010	Actuarial Loss / (Gain)	165,818	11,815	10,177	13,554	18 years
10/01/2011	Actuarial Loss / (Gain)	95,186	6,515	5,567	7,527	19 years
10/01/2012	Actuarial Loss / (Gain)	(36,480)	(2,405)	(2,038)	(2,798)	20 years
10/01/2012	Assumption Change	(8,289)	(547)	(463)	(636)	20 years
10/01/2013	Actuarial Loss / (Gain)	(68,735)	(4,376)	(3,679)	(5,125)	21 years
10/01/2014	Actuarial Loss / (Gain)	(183,590)	(11,311)	(9,433)	(13,335)	22 years

Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments

Amortization Base		Amortization Payment				Remaining Funding Period
		Current Unfunded Liabilities	Valuation and 112.664(1)(a), F.S. Assumptions	112.664(1)(b), F.S. Assumptions	112.664(1)(a), F.S. Assumptions Plus 2%	
10/01/2015	Actuarial Loss / (Gain)	172,314	10,294	8,517	12,216	23 years
10/01/2015	Assumption Change	16,897	1,009	835	1,198	23 years
10/01/2016	Actuarial Loss / (Gain)	111,266	6,457	5,301	7,712	24 years
10/01/2016	Assumption Change	(13,813)	(802)	(658)	(957)	24 years
10/01/2017	Actuarial Loss / (Gain)	166,614	9,408	7,663	11,308	25 years
10/01/2018	Actuarial Loss / (Gain)	(6,951)	(382)	(309)	(463)	26 years
10/01/2018	System Amendment	167,055	9,192	7,430	11,118	26 years
10/01/2019	Actuarial Loss / (Gain)	(88,610)	(4,758)	(3,817)	(5,790)	27 years
10/01/2019	Assumption Change	(79,721)	(4,281)	(3,434)	(5,209)	27 years
10/01/2020	Actuarial Loss / (Gain)	7,959	418	332	511	28 years
10/01/2020	Assumption Change	109,645	5,753	4,580	7,043	28 years
10/01/2021	Actuarial Loss / (Gain)	(147,641)	(7,579)	(5,988)	(9,332)	29 years
10/01/2022	Actuarial Loss / (Gain)	327,977	16,489	12,931	20,422	30 years
10/01/2022	System Amendment	119,887	6,027	4,727	7,465	30 years
10/01/2022	Assumption Change - 112.664(1)(b), F.S. Assumptions	1,730,658	N/A	68,235	N/A	30 years
10/01/2022	Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(1,219,516)	N/A	N/A	(75,933)	30 years
TOTAL			\$ 93,243	\$ 148,232	\$ 31,553	

SECTION B

SUMMARY OF SYSTEM PROVISIONS

Outline of Principal Provisions of the Retirement System
(as of October 1, 2022)

A. Normal Retirement:

1. Eligibility

Earlier of:

- (a) Attainment of age 55 with completion of 10 years of Credited Service.
- (b) Completion of 25 years of Credited Service.

2. Mandatory Retirement Age

Age 60. Extensions granted with employer consent.

3. Amount of Pension

Total service times 3.50% of Final Average Salary. Maximum 100% of Final Average Salary.

4. Normal Form

The Normal Form of pension is a 10 year Certain and Life. Upon his or her death, 100% of the reduced benefit is continued for the remainder of the Certain period, if any. Optional forms are available on an actuarial equivalent basis.

5. Final Average Salary

Highest 3 consecutive years out of last 10. Salary includes base pay plus longevity pay and up to the first 250 hours of overtime per year. Lump sum payments paid at the time of retirement are not included in the determination of Final Average Salary.

B. Early Retirement:

1. Eligibility

Attainment of age 50 with completion of 10 years of Credited Service.

2. Amount of Pension

Computed as a Normal Retirement pension but reduced 3.0% for each year (0.25% for each month) that Early Retirement precedes the date the Member would have been eligible for Normal Retirement.

Outline of Principal Provisions of the Retirement System
(as of October 1, 2022)

C. Deferred Retirement:

1. Eligibility

10 or more years of Credited Service. Pension begins at age 55.

2. Benefit

Computed as a Normal Retirement pension but based upon service and Final Average Salary at time of termination.

D. Duty Disability Retirement:

1. Eligibility

No age or service requirement. Must be in receipt of worker's compensation.

Effective July 1, 2019, a Firefighter who becomes totally and permanently unable to perform useful and efficient service as a Firefighter due to a diagnosis of cancer or circumstances that arise out of the treatment of such cancer will be presumed to be duty disabled subject to the limitations in Chapter 112.1816, Florida Statutes.

2. Benefit

Computed as a Normal Retirement pension. Minimum benefit shall be 42% of Final Average Salary. Worker's compensation payments are offset, to the extent permitted by law.

E. Non-Duty Disability Retirement:

1. Eligibility

10 or more years of service.

2. Benefit

Computed as a Normal Retirement pension. Minimum benefit shall be 42% of Final Average Salary. Worker's compensation payments are offset, to the extent permitted by law.

F. Death Before Retirement:

1. Eligibility

10 or more years of service.

2. Benefit

Computed as a Normal Retirement pension but actuarially reduced in accordance with a 100% joint and survivor election.



Outline of Principal Provisions of the Retirement System
(as of October 1, 2022)

G. Deferred Retirement Option Plan (DROP):

Members may elect to freeze their retirement benefit at Normal Retirement eligibility, and continue working for a maximum of 5 years. The retirement benefit will be calculated as of the date the Member elects the DROP. This retirement benefit will be accumulated with interest at 4% during the DROP period in a DROP account. At actual termination, the Member can rollover the DROP account balance or receive the balance directly with appropriate tax consequences. The retirement benefit calculated as of the date of the DROP election becomes payable directly to the retiree or beneficiary thereafter. Member pick-up contributions will cease at the date of DROP election. Disability and death before retirement provisions will no longer apply to members who enter the DROP.

H. Post-Retirement Cost-of-Living Adjustments:

Effective October 1, 1994 all current retired Members and beneficiaries received an increase in their pension of \$75/month. Effective October 1, 2004, all current retired Members and beneficiaries received an increase in their pension of \$100/month. Effective October 1, 2022 all current retired members, DROP participants and beneficiaries received a pension increase of 5%.

I. Annual Holiday Bonus:

\$100

J. Member Contributions:

5.00% of annual salary for full-time Firefighters. 6.00% of annual salary for volunteer Firefighters. This amount is refunded upon termination. The City currently picks-up the former 5.00% Member contribution for full-time Firefighters. For all employees hired prior to December 31, 1999, this amount is refunded upon termination of membership with 3 or more years of Credited Service in the absence of a pension. For all employees hired after December 31, 1999, this amount is refunded upon termination of membership with 10 or more years of Credited Service in the absence of a pension. Should a Member die and no pension becomes or will become available, picked-up Member contributions will be refunded even if the required years of service have not been attained.

If you terminate employment and receive a refund of contributions, you forfeit any rights to future benefits from the Retirement System. The taxable portion of any refund you receive is subject to an automatic 20% withholding for Federal income tax purposes, and a possible 10% excise tax. These taxes can be avoided, however, if you roll the taxable portion over to an Individual Retirement Account (IRA) or another qualified employer plan. This rollover will result in no tax being due until you begin withdrawing funds from the IRA or other qualified employer plan. The rollover of the distribution, however, MUST be made directly by the System to your chosen IRA or other qualified employer plan.



Outline of Principal Provisions of the Retirement System
(as of October 1, 2022)

K. City Contributions:

Actuarially determined amounts which together with Member contributions and premium tax monies are sufficient to at least cover the requirements of the funding objective.

L. Premium Tax Monies:

A distribution of property insurance premium tax monies collected by the State pursuant to Chapter 175, Florida Statutes.

M. Forfeiture of Retirement Benefits:

Retirement benefits granted by the Retirement System are subject to forfeiture if an employee is convicted of an offense specified in Section 112.3173 and 175.195, Florida Statutes, pursuant to the procedures set forth in the cited statutes.

N. Claims Procedure:

Claims for benefits should be filed with the Board of Trustees at the City Clerk's office. If the claim is denied, you will be notified and informed of the procedure to request a hearing before the Board of Trustees. An applicant for benefits must appeal said denial within 60 days of being informed of the denial by filing an appeal with the Board at the City Clerk's office. If no appeal is filed within the time period then the denial shall be final.

O. Disclaimer:

The preceding summary briefly describes the principal benefits of the Retirement System. Detailed benefit conditions and limitations are contained in the Retirement Ordinance which establishes the System. The Internal Revenue Code, Florida Statutes, and the Ordinance all govern the operation of the System, and should be consulted before taking any action concerning your participation or benefits. In the case of any conflict between this summary and the provisions of the Ordinance or other applicable law, the Ordinance or other applicable law will prevail. Copies of the Ordinance are available at the City Clerk's office.

P. Change From Previous Valuation:

Post-Retirement Cost-of-Living Adjustments was:

Effective October 1, 1994 all current retired Members and beneficiaries received an increase in their pension of \$75/month. Effective October 1, 2004, all current retired Members and beneficiaries received an increase in their pension of \$100/month.



SECTION C

ACTUARIAL ASSUMPTIONS AND COST METHODS USED FOR FUNDING

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2022)**

A. Mortality

For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.

Sample Ages (2022)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Men	Women	Men	Women
55	30.62	34.47	27.78	31.35
60	25.66	29.40	23.18	26.55
62	23.73	27.39	21.44	24.71

Sample Ages (2042)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Men	Women	Men	Women
55	32.25	35.96	29.67	33.18
60	27.23	30.84	24.97	28.30
62	25.27	28.81	23.18	26.42

B. Interest to be Earned by Fund

7.25%, compounded annually, net of investment expenses - includes inflation at 2.5%.

C. Allowances for Expenses or Contingencies

Administrative expenses are projected to continue at the same dollar amount as the average of the preceding three fiscal years, rounded to the nearest thousand.

D. Employee Withdrawal Rates

The rates do not apply to Members eligible to retire and do not include separation on account of death or disability. This estimate measures the probabilities of Members leaving employment.

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2022)**

D. Employee Withdrawal Rates (Cont'd)

<u>Sample Ages</u>	<u>Years of Service</u>	<u>Withdrawal Rates Per 100 Employees</u>
ALL	0	9.0
	1	6.0
	2	4.0
	3	3.0
	4	2.5
Under 35	5 & Over	2.25
35 - 39		1.00
40 - 44		0.50
45 & Over		0.20

E. Disability Rates

These estimates represent the probabilities of active Members becoming disabled.

<u>Sample Ages</u>	<u>Percent Becoming Disabled Within Next Year</u>	
	<u>Male</u>	<u>Female</u>
20	0.07%	0.03%
25	0.09%	0.05%
30	0.10%	0.07%
35	0.14%	0.13%
40	0.21%	0.19%
45	0.32%	0.28%
50	0.52%	0.45%
55	0.92%	0.76%
60	1.53%	1.10%

75% of disabilities are assumed to be service incurred - 25% non-service incurred.

F. Salary Increase Factors

Employee salaries are estimated to increase between the date of hire and date of retirement. Salary increases occur in recognition of (i) individual merit and seniority, (ii) inflation-related depreciation of the purchasing power of salaries, and (iii) competition from other employers for personnel.

<u>Age</u>	<u>Salary Increase</u>
Under 35	5.0%
35 - 54	4.0%
55 & Over	3.5%

General increase in wage level due to inflation is 3%.

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2022)**

G. Payroll Growth Assumption

4.0% per annum - not greater than historical 10-year average (6.5%) but not less than 0.0%.

H. Retirement Rates

These rates are used to measure the probabilities of an eligible Member retiring during the next year.

Retirement Ages	Percent Retiring
< 56	17%
56 - 63	10%
64	20%
65	100%

A Firefighter is eligible for retirement after 25 years of service or after attaining age 55 with 10 or more years of Credited Service.

A Firefighter is eligible for Early Retirement at age 50 with 10 or more years of Credited Service.

Benefits accruing after age 65 are offset by actuarial gains from the deferred retirement.

I. Asset Valuation Method

The method used for determining the smoothed actuarial value of assets phases in the deviation between the expected and actual return on assets at the rate of 25% per year. The smoothed actuarial value of assets will be further adjusted to the extent necessary to remain within the corridor whose lower and upper limits are 80% and 120%, respectively, of the fair market value of System assets.

J. Cost Method

Normal Retirement, Termination, Disability, and Death Benefits: Entry-Age-Normal Cost Method.

Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his entry age to his assumed retirement age to fund his estimated benefits, assuming the System had always been in effect. The normal cost for the System is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the System is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over the assets of the System.

Vested Normal Retirement, Termination, Disability, and Death Benefits: Unit Credit Cost Method

Under this method, the actuarial present value of vested accrued benefits is an amount calculated to be the sum of the present values of each individual's vested accrued or earned benefit under the Plan as of the valuation date. Each individual's calculation is based on pay and service as of the valuation date.

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2022)**

K. Disclosure of Assumptions

The investment return, salary increases, payroll growth assumption, withdrawal and retirement rates were updated based on the most recent experience study performed for the five years ending September 30, 2019. The mortality rates are based upon the July 1, 2022 FRS Actuarial Valuation, as required under F.S., Chapter 2015-157.

L. Changes From Previous Valuation

None.

M. Technical Assumptions

1. Pay Increase Timing:

Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.

2. Decrement Timing:

Decrements are assumed to occur mid-year.

3. Eligibility Testing:

Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

4. Benefit Service:

Exact fractional service is used to determine the amount of benefit payable.

5. Decrement Relativity:

Decrement rates are used directly from tabular rates - no adjustment for multiple decrement table effects.

6. Decrement Operation:

Disability and mortality decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during periods of retirement eligibility.

7. Incidence of Contributions:

Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

8. Marriage Assumption:

100% of Members are assumed to be married. Male spouses are assumed to be three years older than female spouses.

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2022)**

M. Technical Assumptions (cont'd)

9. Normal Form of Benefit:

The assumed Normal Form of benefit is a benefit payable for life with 10 years of guaranteed payments. Optional forms are available on an actuarial equivalent basis for Normal Retirement.

10. Actuarial Equivalence Basis for Optional Forms of Payment:

7.5% interest and the RP 2000 Combined Healthy Male Mortality Table with Blue Collar adjustment projected to the fiscal year that contains the benefit commencement date for participants and the RP 2000 Combined Healthy Female Mortality Table projected to the fiscal year that contains the benefit commencement date for beneficiaries. Disabled lives are set forward 5 years.

11. Duty and Non-Duty Related Assumption:

50% are assumed in-service and 50% are assumed non-service for pre-retirement death benefits.

12. Vested Members:

Vested Members who terminate with a benefit worth less than 100% of their accumulated employee contribution balance are assumed to withdraw the balance of their accumulated employee contributions and forfeit any vested benefit.

13. Salary:

Salary reported for the Actuarial Valuation includes all amounts included in the Final Average Compensation for benefit purposes.

SECTION D

GLOSSARY

GLOSSARY

<i>Actuarial Accrued Liability</i>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<i>Actuarial Assumptions</i>	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members and other items.
<i>Actuarial Cost Method</i>	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
<i>Actuarial Equivalent</i>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<i>Actuarial Present Value</i>	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
<i>Actuarial Present Value of Future Benefits</i>	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
<i>Actuarial Valuation</i>	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.
<i>Actuarial Value of Assets</i>	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution.

<i>Amortization Method</i>	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
<i>Amortization Payment</i>	That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<i>Amortization Period</i>	The period used in calculating the Amortization Payment.
<i>Annual Required Contribution</i>	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The annual required contribution consists of the Employer Normal Cost and Amortization Payment plus interest adjustment.
<i>Closed Amortization Period</i>	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
<i>Employer Normal Cost</i>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<i>Equivalent Single Amortization Period</i>	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
<i>Experience Gain/Loss</i>	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. Losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.
<i>Funded Ratio</i>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.

<i>GASB</i>	Governmental Accounting Standards Board.
<i>GASB No. 67 and GASB No. 68</i>	These are the governmental accounting standards that set the accounting rules for public retirement plans and the employers that sponsor or contribute to them. Statement No. 67 sets the accounting rules for the plans themselves, while Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement plans.
<i>Normal Cost</i>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<i>Open Amortization Period</i>	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
<i>Unfunded Actuarial Accrued Liability</i>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<i>Valuation Date</i>	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.