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# City of Rockledge

# Police Employees Retirement Plan

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## Actuarial Valuation as of October 1, 2021



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January 28, 2022

REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS  
FOR THE PLAN AND FISCAL YEAR  
BEGINNING OCTOBER 1, 2022





January 28, 2022

Board of Trustees  
City of Rockledge Police Employees Retirement Plan  
Rockledge, Florida

**RE: Actuarial Valuation as of October 1, 2021**

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2021 for the City of Rockledge Police Employees Retirement Plan (the Plan). This report provides a review of the current funded status of the Plan, establishes the minimum funding requirements for the fiscal year ending September 30, 2023, and provides an analysis of experience since the last valuation. In addition to providing the summary and derivation of actuarial findings, this report describes the data, assumptions, and methods used to create these results.

In producing our work product, we rely on various models, internal and external, which were used for their intended purposes. Underlying data, assumptions, methodologies, model inputs and resulting outputs have been reviewed. The 7.65% net assumed return is a prescribed assumption as defined by Actuarial Standard of Practice No. 27 (ASOP 27), as it is set by the Board. While we find all other inputs and outputs to be reasonable, this prescribed assumption significantly conflicts with our judgment regarding what would constitute a reasonable assumption for the purpose of the measurement as discussed in ASOP 27. We continue to recommend lowering the net assumed return.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

Statement by Enrolled Actuary:

"This actuarial valuation and/or cost determination was 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, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation."

RE: Actuarial Valuation as of October 1, 2021  
January 28, 2022  
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We look forward to the presentation of these results to you in person and we are always available to answer any questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Chad M. Little".

Chad M. Little, ASA, EA  
Partner, Consulting Actuary  
Enrollment Number 20-6619

A handwritten signature in black ink, appearing to read "Paula C. Freiman".

Paula C. Freiman, ASA, EA  
Partner, Consulting Actuary  
Enrollment Number 20-5796



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## Section

## 1

## Board Summary

A summary of the key valuation findings are compared with the results of the prior valuation below.

## Summary of Principal Valuation Results

<b>Fiscal Year Ending September 30,</b>	<b>2022</b>	<b>2023</b>
Minimum Funding Requirements		
<u>Minimum Funding Requirement</u>		
Minimum Required City Contribution	\$120,224	\$80,563
Estimated State Contribution	<u>244,109</u>	<u>247,231</u>
Total Minimum Funding Requirement (City plus State)	\$364,333	\$327,794
Minimum Required City Contribution	5.84%	3.39%
Estimated State Contribution	<u>11.86%</u>	<u>10.41%</u>
Total Minimum Funding Requirement (City plus State)	17.70%	13.80%

Note: \$327,794 is the minimum funding requirement for fiscal 2023 including both contributions from the City and those from the State of Florida. We have estimated the City portion as \$80,563 which must be deposited on December 15, 2022.

The annual contribution paid by the City should take into account the actual amount of premium tax revenues received from the State of Florida that may be applied toward the actuarially determined contribution so that the total deposit for fiscal 2023 is at least \$327,794.

## Funded Status

<b>Valuation as of October 1,</b>	<b>2020</b>	<b>2021</b>
Accrued Liability (AL)	\$16,818,163	\$17,748,421
Actuarial Value of Assets	<u>(16,830,952)</u>	<u>(18,160,770)</u>
Unfunded Accrued Liability (UAL)	(\$12,789)	(\$412,349)
Funded Percentage	100.08%	102.32%

## Key Assumptions

<b>Valuation as of October 1,</b>	<b>2020</b>	<b>2021</b>
Assumed Investment Return, Net of Expenses	7.80%	7.65%
Salary Increase Assumption	6.00%	
Year 0-10		5.50%
Year 11+		4.50%



## Summary of Significant Events

Determination of the funded status of the Plan and minimum funding requirements are based on funding policy, participant data, asset information, Plan provisions, actuarial methods and assumptions, as well as contributions made to the Plan by the State of Florida. Any significant events associated with these items are discussed in the following.

In preparing our report we relied, without audit, on information (some oral and some written) supplied by the Plan Administrator and the City. This information includes, but is not limited to, statutory provisions, employee census, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

### Participant Data

During the year active membership increased from 40 to 43 members due one DROP entrant, 2 vested terminations, 3 non-vested terminations, and 9 new hires. The number of terminated members due future monthly benefits increased from 6 to 7 due to the 2 new vested terminations and one vested termination who commenced retirement benefits during the year. The number of members receiving payments increased from 23 to 25 due to the one DROP entrant and one vested termination who commenced retirement benefits during the year.

The following provides a summary comparing the actual and expected pay increases for the 12-month periods ending on the date specified.

Year Ended September 30,	Individual		Total Payroll Increase
	Actual	Expected	
2021	11.1%	6.0%	15.4%
2020	2.5%	6.0%	(7.0%)
2019	10.2%	6.0%	6.0%
2018	2.6%	6.0%	(0.7%)
2017	1.8%	6.0%	(8.0%)
2016	5.2%	6.0%	2.0%
2015	4.1%	6.0%	(3.3%)
2014	5.3%	6.0%	10.1%
2013	6.0%	6.0%	(7.5%)
2012	(6.7%)	6.0%	(5.7%)
Average:	4.1%	6.0%	(0.1%)

Pay increases were more than expected with the actual average pay increase amongst continuing actives at 11.1% in comparison to the 6.0% salary increase assumption. In addition, total payroll decreased 0.1% on average over the last 10 years. Florida Statutes 112.64(5)(a) requires that the payroll growth assumption not exceed the average payroll growth for the prior ten years. This requirement is met in that the Unfunded Accrued Liability is amortized on a level dollar basis.

Overall, there was a demographic loss primarily due to pay increases more than expected. Should a pattern of consistent gains or losses develop, assumptions will be adjusted as needed. An experience review was performed for the 10-year period preceding October 1, 2020. See changes in assumptions made effective October 1, 2021 below.

## Assets

The investment return on the Market Value of Assets was 20.96% and the return on the Actuarial Value of Assets was 11.28%, each in comparison to the 7.80% net investment return assumption used for the year ending September 30, 2021. Because the return on the Actuarial Value of Assets was more than the net assumed investment return, there was an actuarial investment gain.

Note only a portion of actual investment gains or losses are recognized in the current year Actuarial Value of Assets with the remainder recognized over the next four years. Even if all assumptions are realized in the next several years, the Plan will experience changes in the required contribution rate until prior gains and losses are fully recognized.

The table below provides a comparison of the investment return on the Market Value of Assets and the Actuarial Value of Assets in comparison to the investment return assumed in the valuation of the Plan.

<b>12-Month Period Ended September 30,</b>	<b>% Market Return</b>	<b>% Actuarial Return</b>	<b>% Assumed Return</b>
2021	20.96 %	11.28 %	7.80 %
2020	10.77 %	8.76 %	7.80 %
2019	3.27 %	7.36 %	7.80 %
2018	9.93 %	8.69 %	8.00 %
2017	12.80 %	8.08 %	8.00 %
2016	9.68 %	7.51 %	8.00 %
2015	0.11 %	4.77 %	8.00 %
2014	9.65 %	7.59 %	8.00 %
2013	8.84 %	5.84 %	8.00 %
2012	12.43 %	0.96 %	8.00 %
Average	9.72 %	7.05 %	7.94 %

Investment returns less than the assumed rate of return result in increased annual minimum required contributions in the future.

## Plan Provisions

Ordinance No. 1793-2020 was adopted effective November 4, 2020 regarding required minimum distributions at age 72. This ordinance had no significant impact on liability.

## Assumptions and Methods

Our August 18, 2021 letter provides the results of an experience review for the 10-year period preceding October 1, 2020. Based on this review, we recommended revision to assumed rates of termination, assumed rates of retirement, the individual salary increase assumption and the assumed net investment return assumption. The Board of Trustees adopted the revised assumed rates of termination and retirement, as well individual salary increase assumption recommended. The net assumed rate of investment return was revised from 7.80% used in the October 1, 2020 actuarial valuation to 7.65% for this October 1, 2021 actuarial valuation of the Plan as directed by the Board of Trustees. The 7.65% net assumed return is a prescribed assumption as defined by Actuarial Standard of Practice No. 27 (ASOP 27), as it is set by the Board. The prescribed assumption significantly conflicts with our judgment regarding what would constitute a reasonable assumption for the purpose of the measurement as discussed in ASOP 27. As discussed with the Board we recommend lowering the net assumed return.

Prior to the October 1, 2021 actuarial valuation, continuing outstanding bases were adjusted prorata to make the sum of outstanding bases equal to the unfunded accrued liability. This adjustment is to account



for differences in contributions. Differences in contributions arise for several reasons including determination of minimum required contributions projected from a valuation prior to the funding year. Effective with this October 1, 2021 actuarial valuation the method has been changed to instead adjust the current year actuarial experience base. Because the total amortization bases before and after this change were negative, and because the minimum required contribution is calculated limiting the amortization of the unfunded accrued liability to not less than zero, this change in method is not shown in the reconciliation at the end of Section 2 of this report.

The impact of the change in assumptions may be found in the reconciliation of the funded status and minimum funding requirements found at the end of Section 2 of this report. See "Reconciliations" in the table of contents.

### State Contributions

The Estimated Minimum Required City Contribution shown on page 1 assumes that the premium tax money received from the State will be in the same amount received in the prior year. Should the amount received be less than expected, or should a portion of the State contribution be used towards the DC component of the Plan, the City will need to contribute any potential shortfall to the Plan.

## Assessment and Disclosure of Risk

As described in Actuarial Standard of Practice No. 51 (ASOP 51), this section is meant to address the assessment and disclosure of risk in a pension funding valuation. This is not meant to be a comprehensive summary but should provide information regarding risks related to this plan. Additional historical information provided in this report also contain relevant information regarding asset size, asset mix, pay increases, benefits and contributions. This information can be used to understand the changes over time to identify trends.

Note that ASOP 51 defines risk as “The potential of actual future measurements deviating from expected future measurements resulting from actual future experience deviating from actuarially assumed experience....” The following provides examples of potential risk.

**Investment Risk:** As noted previously, investment returns less than the assumed rate of return result in increased annual minimum required contributions payable in a subsequent year.

**Interest Rate Risk:** Interest rates are used to discount the value of benefits. If the long-term expectation of returns is higher or lower than the assumed net investment return, the assumed net investment return should be adjusted. When the assumed net investment return is increased the estimated liability is decreased. When the assumed net investment return is decreased the estimated liability is increased. The chart below shows what the funded status of the plan is on a market value of assets basis after changing the net assumed return by 1% or 2%.

<b>Funded Status on Market Value of Assets Basis</b>						
<b>As of 10/1</b>	<b>Valuation Net Assumed Return</b>			<b>Valuation Net Assumed Return Assumption</b>		
	<b>2% Decrease</b>	<b>1% Decrease</b>	<b>1% Increase</b>	<b>2% Increase</b>		
2021	90.09%	101.15%	112.62%	124.41%	136.46%	7.65%
2020	81.31%	91.07%	101.18%	111.58%	122.23%	7.80%
2019	76.03%	85.58%	95.49%	105.71%	116.19%	7.80%
2018	78.25%	88.24%	98.67%	109.47%	120.60%	7.80%
2017	76.77%	86.66%	97.01%	107.79%	118.93%	8.00%
2016		81.87%	91.93%	102.48%		8.00%
2015		80.51%	90.25%	100.55%		8.00%
2014		86.58%	97.23%	108.55%		8.00%

**Longevity and Other Demographic Risks:** The estimated liability of the Plan is based on assumptions related to mortality, retirement, disability and termination. To the extent that Plan experience is different than these assumptions the gains and losses affect future required contributions and estimated liability.

**Contribution Risk:** The possibility that the plan sponsor does not make contributions to the plan according to the funding policy.

**Intergenerational equity risk:** Intergenerational equity is the concept that resources do not belong to a specific generation and they must be preserved for future generations. One way to alleviate this risk is to pay for benefits over the average future service of the group receiving benefits. Members may feel there are inequities when one is paying more than others, receiving less than others, or paying more than others in relation to what they are receiving.

Plan maturity measures may help understand the risks associated with the plan. As the Plan matures, the ratio of the Market Value of Assets to the Covered Payroll increases. As this ratio gets larger, the impact of asset volatility has a larger effect on the volatility of the Minimum Required Contribution as a percentage of pay.

<b>Year Ending <u>9/30</u></b>	<b>Market Value of <u>Assets</u></b>	<b><u>Payroll</u></b>	<b>Asset Volatility <u>Ratio</u></b>
2021	\$19,987,504	\$2,173,510	9.2
2020	17,016,469	2,211,353	7.7
2019	15,591,866	2,234,127	7.0
2018	14,965,828	2,157,825	6.9
2017	13,509,157	2,220,009	6.1
2016	11,860,589	2,412,232	4.9
2015	10,698,704	2,156,109	5.0
2014	10,799,501	2,253,905	4.8
2013	9,694,311	2,255,905	4.3
2012	8,762,060	2,224,741	3.9
2011	7,566,604	2,342,893	3.2
2010	7,614,445	2,249,420	3.4
2009	6,963,511	2,224,505	3.1
2008	6,671,261	2,186,172	3.1
2007	7,449,379	1,993,074	3.7
2006	6,614,964	1,886,337	3.5
2005	6,495,263	1,920,788	3.4

Another measure of a pension plan's maturity is the Ratio of Benefit Payments to Contributions. Over the life of a pension plan, it is expected that the majority of the benefits will be paid for by returns rather than contributions. For this to happen, as a plan matures, the plan will eventually pay out more in benefits than it receives in contributions. It is important to understand the magnitude of this difference so that steps can be taken, if necessary, to manage cash flows going forward. The table below provides the Ratio of Benefit Payments to Contributions. Note that there are other cash flows to be considered such as interest and dividends earned or expenses paid by a pension plan.

<b>Year Ending 9/30</b>	<b>Benefit Payments</b>	<b>Contributions</b>	<b>Ratio of Benefit Payments to Contributions</b>
2021	\$1,085,578	\$614,309	1.77
2020	798,029	622,782	1.28
2019	457,662	655,759	0.70
2018	453,905	626,991	0.72
2017	382,951	568,632	0.67
2016	395,306	568,265	0.70
2015	470,342	553,522	0.85
2014	277,266	509,115	0.54
2013	335,088	543,751	0.62
2012	244,105	513,139	0.48
2011	286,476	502,430	0.57
2010	309,313	481,754	0.64
2009	219,245	489,732	0.45
2008	198,243	481,059	0.41
2007	225,939	449,419	0.50
2006	854,274	441,568	1.93
2005	124,663	422,818	0.29

When looking at Net Cash Flows, it is useful to understand the relative size of the cash flows in comparison to the Market Value of Assets. The following table provides the ratio of the Net Cash Flows divided by the Market Value of Assets. As mentioned previously, there are other cash flows to be considered such as interest and dividends earned or expenses paid by a pension plan.

<b>Year Ending 9/30</b>	<b><u>Contributions</u></b>	<b><u>Disbursements</u></b>	<b><u>Assets</u></b>	<b>Net Cash Flow Divided by <u>Assets</u></b>
2021	\$614,309	\$1,153,167	\$19,987,504	(0.03)
2020	622,782	864,106	17,016,469	(0.01)
2019	655,759	521,527	15,591,866	0.01
2018	626,991	516,683	14,965,828	0.01
2017	568,632	446,005	13,509,157	0.01
2016	568,265	448,165	11,860,589	0.01
2015	553,522	540,777	10,698,704	0.00
2014	509,115	347,005	10,799,501	0.02
2013	543,751	392,604	9,694,311	0.02
2012	513,139	272,938	8,762,060	0.03
2011	502,430	334,616	7,566,604	0.02
2010	481,754	353,490	7,614,445	0.02
2009	489,732	250,243	6,963,511	0.03
2008	481,059	234,087	6,671,261	0.04
2007	449,419	282,805	7,449,379	0.02
2006	441,568	875,551	6,614,964	(0.07)
2005	422,818	139,075	6,495,263	0.04

## Section

## 2

## Results Derivation

In this section, the assets and liabilities of the Plan are shown in detail. Assets and liabilities are then compared to determine the funded status and minimum funding requirements.

While asset information is based on the fair market value of assets, along with any techniques used to smooth out market fluctuations, liabilities are determined through a combination of the benefit provisions, participant census data which contains information for the members who will receive those benefits, and the methods and assumptions used with regard to how benefits will be paid to members. A summary of participant data, an outline of the benefit provisions, and a description of the methods and assumptions used in this valuation are described in Section 4.

## Financial Information

Over the life of the Plan, the majority of assets are typically generated from investment return. In this section, we describe how the assets of the Plan are invested, show how the actuarial value of assets is derived, and review the investment results since the prior valuation.

## Investment Allocation

Valuation Date	October 1, 2020		October 1, 2021	
Stocks	\$12,200,588	72%	\$14,253,796	71%
Fixed Income Securities	2,890,145	17%	2,955,794	15%
Cash and Cash Equivalents	184,169	1%	351,583	2%
Real Estate	1,489,669	9%	1,644,059	8%
Infrastructure	0	0%	772,565	4%
Net Receivables	<u>251,898</u>	<u>1%</u>	<u>9,707</u>	<u>0%</u>
Fair Market Value of Assets	\$17,016,469	100%	\$19,987,504	100%



## Reconciliation of Market Value of Assets

Year Ending September 30,	2020	2021
1. <b>Market Value of Assets at Beginning of Year</b>	\$15,591,866	\$17,016,469
2. Contributions		
a. Employer	\$223,878	\$214,932
b. State	244,109	247,231
c. Plan Members	<u>154,795</u>	<u>152,146</u>
d. Total Contributions	\$622,782	\$614,309
3. Investment Income		
a. Realized Appreciation (Depreciation)	\$58,268	\$1,710,778
b. Unrealized Appreciation (Depreciation)	1,350,863	1,545,161
c. Interest plus Dividends	310,472	312,513
d. Investment Expense	<u>(53,676)</u>	<u>(58,559)</u>
e. Net Investment Income	\$1,665,927	\$3,509,893
4. Deductions		
a. Benefits	(\$414,525)	(\$647,082)
b. Refund of Contributions	(25,714)	(33,151)
c. DROP Balance Disbursement	(357,790)	(405,345)
d. Administrative Expense	<u>(66,077)</u>	<u>(67,589)</u>
e. Total Deductions	(\$864,106)	(\$1,153,167)
5. Net Increase	<u>\$1,424,603</u>	<u>\$2,971,035</u>
6. <b>Market Value of Assets at End of Year</b>	\$17,016,469	\$19,987,504
7. <b>Return on Market Value of Assets = 2I / (A + B - I)</b>	10.77%	20.96%

## Development of Actuarial Value of Assets

The Market Value of Assets is adjusted to recognize investment earnings greater than (or less than) the assumed net investment return over a five-year period. The Actuarial Value of Assets is no more than 120% and no less than 80% of the Market Value of Assets.

1.	Market Value of Assets as of October 1, 2021			\$19,987,504
2.	Phase-In Gains (Losses) Over Five Year Period			
	<u>Year Ending</u>	<u>Original Gain (Loss)</u>	<u>Percent Unrecognized</u>	<u>Unrecognized Gain (Loss)</u>
	a. September 30, 2021	\$2,208,320	80%	\$1,766,656
	b. September 30, 2020	463,540	60%	278,124
	c. September 30, 2019	(676,858)	40%	(270,743)
	d. September 30, 2018	263,486	20%	<u>52,697</u>
	e. Total			\$1,826,734
3.	Preliminary Actuarial Value of Assets			\$18,160,770
4.	Corridor Around Market Value			
	a. Minimum = 80% of Market Value of Assets			\$15,990,003
	b. Maximum = 120% of Market Value of Assets			\$23,985,005
	c. Corridor Adjustment to Preliminary Actuarial Value			\$0
5.	Actuarial Value of Assets as of October 1, 2021			\$18,160,770

## Development of Historical Gain or Loss on Market Value of Assets

<b>Fiscal Year End</b>	<b>2021</b>	<b>2020</b>
1. Market Value of Assets - Beginning of Year	\$17,016,469	\$15,591,866
2. Expected Interest on Assets	1,327,285	1,216,166
3. Contributions	614,309	622,782
4. Benefit Payments + Administrative Expenses	(1,153,167)	(864,106)
5. Interest on items (3) and (4)	<u>(25,712)</u>	<u>(13,779)</u>
6. Expected Value of Assets at End of Year	\$17,779,184	\$16,552,929
7. Market Value of Assets - End of Year	\$19,987,504	\$17,016,469
8. Gain (Loss) for Plan Year = (7) - (6)	\$2,208,320	\$463,540
<b>Fiscal Year End</b>	<b>2019</b>	<b>2018</b>
1. Market Value of Assets - Beginning of Year	\$14,965,828	\$13,509,157
2. Expected Interest on Assets	1,167,335	1,080,733
3. Contributions	655,759	626,991
4. Benefit Payments + Administrative Expenses	(521,527)	(516,683)
5. Interest on items (3) and (4)	<u>1,329</u>	<u>2,144</u>
6. Expected Value of Assets at End of Year	\$16,268,724	\$14,702,342
7. Market Value of Assets - End of Year	\$15,591,866	\$14,965,828
8. Gain (Loss) for Plan Year = (7) - (6)	\$(676,858)	\$263,486

## Historical Asset Values

<u>Year Ending September 30,</u>	<u>Actuarial Value of Assets</u>	<u>Market Value of Assets</u>	<u>% Market Return</u>	<u>% Actuarial Return</u>	<u>% Assumed Return</u>
2021	\$18,160,770	\$19,987,504	20.96 %	11.28 %	7.80 %
2020	16,830,952	17,016,469	10.77 %	8.76 %	7.80 %
2019	15,706,702	15,591,866	3.27 %	7.36 %	7.80 %
2018	14,500,525	14,965,828	9.93 %	8.69 %	8.00 %
2017	13,235,067	13,509,157	12.80 %	8.08 %	8.00 %
2016	12,127,770	11,860,589	9.68 %	7.51 %	8.00 %
2015	11,164,802	10,698,704	0.11 %	4.77 %	8.00 %
2014	10,643,865	10,799,501	9.65 %	7.59 %	8.00 %
2013	9,402,198	9,694,311	8.84 %	5.84 %	8.00 %
2012	8,736,203	8,762,060	12.43 %	0.96 %	8.00 %

## Historical Contribution Amounts

<u>Year Ending September 30,</u>	<u>Employer</u>	<u>State</u>	<u>Members</u>	<u>Total</u>
2021	\$214,932	\$247,231	\$152,146	\$614,309
2020	223,878	244,109	154,795	622,782
2019	238,901	229,301	187,557	655,759
2018	259,625	216,318	151,048	626,991
2017	218,130	195,099	155,403	568,632
2016	214,124	191,152	162,989	568,265
2015	218,903	175,977	158,642	553,522
2014	175,170	175,891	158,054	509,115
2013	170,374	170,685	202,692	543,751
2012	176,060	174,478	162,601	513,139

## Historical Deductions from Fund

<u>Year Ending September 30,</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expense</u>	<u>Total</u>
2021	\$1,052,427	\$33,151	\$67,589	\$1,153,167
2020	772,315	25,714	66,077	864,106
2019	428,705	28,957	63,865	521,527
2018	417,707	36,198	62,778	516,683
2017	373,818	9,133	63,054	446,005
2016	357,372	37,934	52,859	448,165
2015	414,338	56,004	70,435	540,777
2014	241,507	35,759	69,739	347,005
2013	241,507	93,581	57,516	392,604
2012	242,060	2,045	28,833	272,938

## Historical State Contributions

<b>Year Ending September 30</b>	<b>State Contributions</b>
2021	\$247,231
2020	244,109
2019	229,301
2018	216,318
2017	195,099
2016	191,152
2015	175,977
2014	175,891
2013	170,685
2012	174,478
2011	166,718
2010	162,716
2009	167,324
2008	166,345
2007	169,433
2006	164,202
2005	155,180
2004	144,978
2003	110,868
2002	101,126
2001	85,770
2000	78,865
1999	79,929
1998	80,871

## Present Value of Benefits

Valuation as of October 1,	2020	2021
<b>1. Active Members</b>		
a. Retirement Benefits	\$7,636,294	\$7,192,385
b. Deferred Benefits	595,217	659,315
c. Survivor Benefits	138,456	133,196
d. Disability Retirement	<u>310,675</u>	<u>291,934</u>
e. Total for Active Members	\$8,680,642	\$8,276,830
<b>2. Inactive Members</b>		
a. Retired Members	\$10,828,371	\$11,753,613
b. Terminated members	1,172,774	928,027
c. Beneficiaries	0	0
d. Disability Retirement	<u>133,271</u>	<u>132,686</u>
e. Total for Inactive Members	\$12,134,416	\$12,814,326
<b>3. Present Value of Benefits</b>	\$20,815,058	\$21,091,156

## Accrued Liability

Valuation as of October 1,	2020	2021
1. <b>Active Members</b>		
a. Retirement Benefits	\$4,439,686	\$4,665,621
b. Deferred Benefits	77,245	87,113
c. Survivor Benefits	51,005	55,914
d. Disability Retirement	<u>115,811</u>	<u>125,447</u>
e. Total for Active Members	\$4,683,747	\$4,934,095
2. <b>Inactive Members</b>		
a. Retired Members	\$10,828,371	\$11,753,613
b. Terminated members	1,172,774	928,027
c. Beneficiaries	0	0
d. Disability Retirement	<u>133,271</u>	<u>132,686</u>
e. Total for Inactive Members	\$12,134,416	\$12,814,326
3. <b>Accrued Liability</b>	\$16,818,163	\$17,748,421

## Normal Cost

Valuation as of October 1,		2020	2021
1.	<b>Preliminary Normal Cost</b>		
a.	Retirement Benefits	\$307,085	\$280,497
b.	Deferred Benefits	47,736	60,891
c.	Survivor Benefits	8,357	8,520
d.	Disability Retirement	<u>18,975</u>	<u>18,578</u>
e.	Total	\$382,153	\$368,486
2.	<b>Total Normal Cost</b>		
a.	Preliminary Normal Cost	\$382,153	\$368,486
b.	Estimated Administrative Expense	<u>66,077</u>	<u>67,589</u>
c.	Total Normal Cost	\$448,230	\$436,075
d.	Total Normal Cost as a Percent of Pay	21.78 %	18.36 %
3.	<b>Employer Normal Cost</b>		
a.	Preliminary Normal Cost	\$382,153	
b.	Actual Administrative Expense	67,589	
c.	Actual Employee Contributions	<u>(152,146)</u>	
d.	Employer Normal Cost	\$297,596	
4.	<b>Valuation Payroll</b>	\$2,058,106	\$2,375,586



## Unfunded Accrued Liability

### **Unfunded Accrued Liability**

1. Accrued Liability	\$17,748,421
2. Actuarial Value of Assets	<u>(18,160,770)</u>
3. Unfunded Accrued Liability	\$(412,349)

### **Determination of Expected Unfunded Accrued Liability**

1. Unfunded Accrued Liability as of Prior Year	\$(12,789)
2. Interest for a full year on (1)	(998)
3. Employer Normal Cost (Including Administrative Expenses) Prior Yr.	297,596
4. Interest for a full year on (3)	23,212
5. City Plus State Contribution	(462,163)
6. Interest on Contribution for Time on Deposit	(13,328)
7. Change in Plan, Methods or Assumptions	<u>132,191</u>
8. Expected Unfunded Accrued Liability	\$(36,279)

### **Calculation of (Gain) or Loss**

1. Actual Unfunded Accrued Liability	\$(412,349)
2. Expected Unfunded Accrued Liability	<u>(36,279)</u>
3. Total (Gain) or Loss	\$(376,070)

### **Reconciliation of Unfunded Accrued Liability**

1. Unfunded Accrued Liability as of Prior Year	\$(12,789)
2. Total Change in Unfunded Accrued Liability	
a. Expected Change in Unfunded Accrued Liability	\$(155,681)
b. Change in Plan, Methods or Assumptions	132,191
c. Change Due to (Gain) or Loss	
i. Portion of (Gain) / Loss Due to Investments	\$(581,574)
ii. Portion of (Gain) / Loss Due to Demographic Experience	<u>205,504</u>
iii. Total (Gain) or Loss	\$(376,070)
d. Total Change in Unfunded Accrued Liability	\$(399,560)
3. Unfunded Accrued Liability	\$(412,349)

### **Determination of Investment Gain (Loss)**

1. Actuarial Value of Assets - Beginning of Year	\$16,830,952
2. Expected Interest on Beginning Value	1,312,814
3. Contributions (Employer)	214,932
4. Contributions (State)	247,231
5. Contributions (Employee)	152,146
6. Benefit Payments	(1,085,578)
7. Administrative Expenses	(67,589)
8. Interest on Contributions and Disbursements	<u>(25,712)</u>
9. Expected Value of Assets at End of Year	\$17,579,196
10. Actuarial Value of Assets - End of Year	\$18,160,770
11. Gain (Loss) for Plan Year = (10) - (9)	\$581,574
12. Actuarial Investment Income	\$1,868,676
13. Return on Actuarial Value of Assets	11.28 %

## Amortization of Unfunded Liability

The Unfunded Actuarial Accrued Liability is being amortized as a level dollar amount based on the net assumed return assumption. Changes in the Unfunded Actuarial Accrued Liability due to plan changes, assumption changes, method changes, or gains and losses are all amortized over a 25-year period.

## Amortization Bases

	10/1	Source	Original Balance	Remaining Balance	Adjusted Remaining Balance	Years Remain	Level \$ Amort
1.	2005	Method Change	\$(129,220)	\$(35,323)	\$(35,323)	14	\$(3,900)
2.	2006	Actuarial Gain	(154,247)	(42,744)	(42,744)	15	(4,540)
3.	2007	Actuarial Gain	(538,306)	(150,586)	(150,586)	16	(15,452)
4.	2008	Actuarial Loss	1,693,799	470,991	470,991	17	46,851
5.	2008	Method Change	7,606	2,140	2,140	17	213
6.	2008	Method Change	(1,183,820)	(333,042)	(333,042)	17	(33,129)
7.	2009	Actuarial Loss	449,531	126,767	126,767	18	12,262
8.	2010	Actuarial Loss	46,391	13,075	13,075	19	1,233
9.	2011	Actuarial Loss	489,026	137,399	137,399	20	12,663
10.	2012	Actuarial Gain	(278,260)	(77,754)	(77,754)	21	(7,018)
11.	2012	Asmp/Method Chg	363,487	101,570	101,570	21	9,168
12.	2013	Actuarial Loss	22,767	6,315	6,315	22	559
13.	2013	Assumption Change	10,161	2,816	2,816	22	249
14.	2014	Actuarial Loss	42,565	23,337	23,337	23	2,031
15.	2014	Assumption Change	11,211	6,148	6,148	23	535
16.	2015	Actuarial Loss	217,978	115,963	115,963	19	10,936
17.	2015	Assumption Change	11,608	6,176	6,176	19	582
18.	2016	Actuarial Gain	(108,646)	(61,326)	(61,326)	20	(5,652)
19.	2016	Assumption Change	226,678	127,950	127,950	20	11,792
20.	2017	Actuarial Gain	(79,994)	(45,464)	(45,464)	21	(4,104)
21.	2017	Assumption Change	(3,883)	(2,208)	(2,208)	21	(199)
22.	2018	Actuarial Gain	(226,939)	(155,595)	(155,595)	22	(13,779)
23.	2018	Assumption Change	321,084	220,145	220,145	22	19,496
24.	2019	Actuarial Loss	98,384	84,169	84,169	23	7,326
25.	2019	Plan Change	(12,487)	(10,683)	(10,683)	23	(930)
26.	2020	Actuarial Gain	(230,997)	(227,744)	(227,744)	24	(19,510)
27.	2020	Assumption Change	(321,354)	(316,829)	(316,829)	24	(27,142)
28.	2021	Actuarial Gain	(376,070)	(376,070)	(530,203)	25	(44,768)
29.	2021	Assumption Change	132,191	<u>132,191</u>	<u>132,191</u>	25	<u>11,162</u>
Scheduled Amortization Payment							\$(33,065)
Outstanding Bases				\$(258,216)	\$(412,349)		
Unfunded Accrued Liability					(412,349)		

## Projected Unfunded Accrued Liability and Amortization Payments

<b>Plan Year Beginning October 1</b>	<b>Total Outstanding Bases</b>	<b>Total Amortization Payment</b>
2021	\$(412,349)	\$(33,065)
2022	(408,299)	(33,065)
2023	(403,940)	(33,065)
2024	(399,247)	(33,065)
2025	(394,194)	(33,065)
2026	(388,756)	(33,065)
2027	(382,901)	(33,065)
2028	(376,599)	(33,065)
2029	(369,814)	(33,065)
2030	(362,510)	(33,065)
2031	(354,648)	(33,065)
2032	(346,184)	(33,065)
2033	(337,073)	(33,065)
2034	(327,264)	(33,054)
2035	(316,717)	(29,171)
2036	(309,543)	(24,621)
2037	(306,718)	(9,168)
2038	(320,312)	(23,122)
2039	(319,925)	(35,353)
2040	(306,341)	(48,101)
2041	(277,996)	(66,935)
2042	(227,207)	(64,765)
2043	(174,869)	(71,283)
2044	(111,510)	(80,287)
2045	(33,612)	(33,612)
2046	0	0

## Actions Taken to Reduce Unfunded Actuarial Accrued Liability

The required contributions calculated each year include a payment for the amortization of the unfunded actuarial accrued liability. This payment is designed to reduce the unfunded actuarial accrued liability in an orderly fashion over the next 25 years.

## Minimum Funding Requirements

### Determination of Required Contribution

<b>Valuation as of October 1, Funding for Year Ending September 30,</b>	<b>2020 2022</b>	<b>2021 2023</b>
<b>1. Minimum Required Contribution</b>		
a. Total Normal Cost	\$448,230	\$436,075
b. Amortization of Unfunded Accrued Liability	<u>510</u>	<u>0</u>
c. Beginning of Year Contribution	\$448,740	\$436,075
d. Interest	<u>59,660</u>	<u>58,010</u>
e. Minimum Required Contribution	\$508,400	\$494,085
<b>2. Contribution by Source - \$ Amount</b>		
a. City Policy Contribution	\$120,224	\$80,563
b. Expected State Contribution	244,109	247,231
c. Expected Member Contributions	<u>144,067</u>	<u>166,291</u>
d. Total	\$508,400	\$494,085
<b>3. Contribution by Source - % Pay</b>		
a. City Policy Contribution	5.84 %	3.39 %
b. Expected State Contribution	11.86 %	10.41 %
c. Expected Member Contributions	<u>7.00 %</u>	<u>7.00 %</u>
d. Total	24.70 %	20.80 %
<b>4. Valuation Payroll</b>	\$2,058,106	\$2,375,586
<b>5. Key Assumptions</b>		
a. Net Assumed Rate of Return	7.80 %	7.65 %
b. Assumed Valuation Payroll Increase	0.00 %	0.00 %

Note: The \$80,563 minimum funding requirement for fiscal 2023 must be deposited on December 15, 2022. The actual premium tax distribution for the fiscal years ending September 30, 2022 and 2023 are not yet known. If state contributions are less than expected the City contributions must be increased to make up the difference.

## Reconciliations

### Reconciliation of Funded Status

	Unfunded Actuarial Accrued Liability	Funded Percentage	Change in Unfunded Actuarial Accrued Liability	Change in Funded Percentage
<b>As of Prior Valuation</b>	<b>\$(12,789)</b>	<b>100.08 %</b>		
Changes in due to:				
Normal Operation of Plan	(168,470)	100.97 %	\$(155,681)	0.89 %
Investment Experience	(750,044)	104.31 %	(581,574)	3.34 %
Demographic Experience	(544,540)	103.09 %	205,504	(1.22)%
Revise Termination Rates	(450,683)	102.54 %	93,857	(0.55)%
Revise Retirement Rates	(437,784)	102.47 %	12,899	(0.07)%
Revise Salary Scale	(684,044)	103.91 %	(246,260)	1.44 %
New Return 7.65%	(412,349)	102.32 %	<u>271,695</u>	<u>(1.59)%</u>
Total Changes			\$(399,560)	2.24 %
<b>As of Current Valuation</b>	<b>\$(412,349)</b>	<b>102.32 %</b>		

### Reconciliation of City Minimum Funding Requirement

	Dollar Amount	% of Pay
<b>City Required Contribution for Fiscal 2022</b>	<b>\$120,224</b>	<b>5.84 %</b>
Changes in Contribution due to:		
Normal Operation of Plan	\$0	0.00 %
Change in Expenses	1,655	0.08 %
Change in State \$	(2,940)	(0.14)%
Investment Experience	(559)	(0.03)%
Demographic Experience	28,979	0.45 %
Revise Termination Rates	(27,454)	(1.16)%
Revise Retirement Rates	1,458	0.07 %
Revise Salary Scale	(52,364)	(2.21)%
Net Return 7.65%	<u>11,564</u>	<u>0.49 %</u>
Total Changes	\$(39,661)	(2.45)%
<b>City Required Contribution for Fiscal 2023</b>	<b>\$80,563</b>	<b>3.39 %</b>

Note: The City required contributions shown above must be deposited on December 15.

# Section 3 Accounting Information

## Information Required by GASB 67/68

A supplemental report provides information under the Governmental Accounting Standards Board No. 67/68.

## Statement of Accumulated Plan Benefits

The present value of accrued benefits is an estimate of the liability for all benefits accrued to date.

Valuation as of October 1,	2020	2021
1. Actuarial present value of accumulated benefits		
a. Participants currently receiving benefits	\$10,961,642	\$11,886,299
b. Other participants	<u>4,003,623</u>	<u>3,819,513</u>
c. Vested participants	\$14,965,265	\$15,705,812
d. Nonvested participants	<u>718,327</u>	<u>799,547</u>
e. Total	\$15,683,592	\$16,505,359
2. Change in actuarial present value of accumulated benefits		
a. Actuarial present value of accumulated benefits beginning of year		\$15,683,592
b. Increase (decrease) during year attributable to:		
i. Plan amendment		\$0
ii. Change in assumptions or methods		213,242
iii. Increase for interest and probability of payment due to decrease in discount period and benefits accrued		1,694,103
iv. Benefits paid		(1,085,578)
v. Other		<u>0</u>
vi. Net increase (decrease)		\$821,767
c. Actuarial present value of accumulated benefits end of year		\$16,505,359

## Other Disclosures Required by the State of Florida

Valuation as of October 1,	2020	2021
Present value of active member:		
Future salaries (attained age)	\$22,259,766	\$22,125,647
Future contributions (attained age)	\$1,558,184	\$1,548,795
Balance of contributions with interest for actives	\$1,405,222	\$1,387,832

## Required Disclosure Under F.S. 112.664(1)

- (a) Total pension liability calculated based on mortality used in one of the last two Florida Retirement System (FRS) valuations. This actuarial valuation assumes mortality as used in the July 1, 2019 and 2020 actuarial valuations for special risk members of FRS.
- (b) Total pension liability calculated using an assumed interest rate that is 200 basis points lower than that assumed in the valuation of the Plan.
- (c) Determination of the number of months or years for which the current market value of assets is adequate to sustain the payment of expected retirement benefits.
- (d) Recommended contribution to the Plan using the most recent valuation and the contributions necessary prepared pursuant to (a) and (b) stated as a dollar amount and % of payroll.

	2% Decrease (5.65%)	Current Discount Rate (7.65%)	2% Increase (9.65%)
Total pension liability	\$22,186,231	\$17,748,421	\$14,646,838
Plan fiduciary net position	<u>(19,987,504)</u>	<u>(19,987,504)</u>	<u>(19,987,504)</u>
Net pension liability	<u>\$2,198,727</u>	<u>\$(2,239,083)</u>	<u>\$(5,340,666)</u>
 Plan fiduciary net position as a percentage of the total pension liability	 90.09%	 112.62%	 136.46%
 Years of benefit payments:			
Expected for current members:	97	97	97
Paid for with current assets:	23.03	37.07	97.00
 City Plus State Contribution Requirement, Plus Expected Employee Contributions			
Dollar Amount	\$1,013,047	\$494,085	\$413,522
Percent of Payroll	42.64%	20.80%	17.41%



## Required Disclosure Under F.S. 112.664(2)(b)2.

F.S. Section 112.664(2)(b)2. - For the previous five years, beginning with 2013, a side-by-side comparison of the plan's assumed rate of return compared to the actual rate of return, as well as the percentages of cash, equity, bond and alternative investments in the plan portfolio.

<b>Year Ending September 30,</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
Assumed rate of return	7.8%	7.8%	7.8%	8.0%	8.0%
Actual rate of return	21.0%	10.8%	3.3%	9.9%	12.8%
Percentages of assets in:					
Cash	2%	2%	3%	2%	2%
Equity	71%	72%	71%	77%	74%
Bond	15%	17%	17%	16%	19%
Alternative	12%	9%	9%	5%	5%
Total	100%	100%	100%	100%	100%

# Section 4 Supplementary Information

## Summary of Participant Data

### Member Statistics

<b>Valuation as of October 1,</b>	<b>2020</b>	<b>2021</b>
<u>Active Participants</u>		
Number	40	43
Average Age	36.6	35.4
Average Credited Service	8.3	7.6
Percent Male	77.5	79.1
Average Valuation Salary	\$51,453	\$55,246
Total Valuation Salary	\$2,058,106	\$2,375,586
Payroll Covered in Valuation	\$2,058,106	\$2,375,586
<u>Terminated with Rights to Deferred Benefits</u>		
Number	6	7
Average Age	45.9	44.8
Percent Male	66.7	85.7
Average Monthly Benefit	\$1,844	\$1,547
Total Benefits	\$132,764	\$129,921
<u>Retirements (DROP and Service Retirees)</u>		
Number	22	24
Average Age	60.8	61.1
Percent Male	90.9	83.3
Average Monthly Benefit	\$3,379	\$3,344
Total Benefits	\$892,072	\$963,086
Total of DROP Account Balances September 30	\$787,762	\$843,232
<u>Beneficiaries</u>		
Number	0	0
Average Age	0.0	0.0
Percent Male	0.0	0.0
Average Monthly Benefit	\$0	\$0
Total Benefits	\$0	\$0
<u>Disability Retirements</u>		
Number	1	1
Average Age	59.1	60.1
Percent Male	100.0	100.0
Average Monthly Benefit	\$1,239	\$1,239
Total Benefits	\$14,873	\$14,873

## Number of Active Members by Age and Service as of October 1, 2021

Age	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	Total
< 20									
< 25	2	2							4
< 30	3	8	1						12
< 35		5	2	1					8
< 40	1	2	1	1	2				7
< 45				2	1				3
< 50				1	1	1			3
< 55			1	1	1		2		5
< 60			1						1
< 65									
Total	6	17	6	6	5	1	2		43

## Active Valuation Pay by Age and Service as of October 1, 2021

Age	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	Total
< 20									
< 25	45,210	46,795							46,003
< 30	45,998	46,175	49,252						46,387
< 35		46,876	49,056	68,960					50,181
< 40	45,210	48,207	50,960	55,985	74,338				56,749
< 45				55,556	64,015				58,376
< 50				54,076	62,810	70,755			62,547
< 55			51,787	72,515	64,290		84,395		71,476
< 60			116,082						116,082
< 65									
Total	45,604	46,693	61,032	60,441	67,958	70,755	84,395		55,246

## DROP Balance Reconciliation

<b>Year Ending September 30,</b>	<b>2020</b>	<b>2021</b>
1. Beginning Balance	\$732,916.28	\$787,762.28
2. Additions	\$337,534.14	\$319,605.39
3. Interest	\$75,101.74	\$141,210.01
4. Distributions	\$357,789.88	\$405,345.36
5. Ending Balance	\$787,762.28	\$843,232.32

## Reconciliation of Plan Participants

	<b>Active</b>	<b>Retired</b>	<b>DROP</b>	<b>Deferred Vested</b>	<b>Disabled</b>	<b>Survivor</b>	<b>Total</b>
<b>October 1, 2020</b>	<b>40</b>	<b>14</b>	<b>8</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>69</b>
Retired		3	-2	-1			0
DROP Entrant	-1		1				0
Terminated Vested	-2			2			0
Nonvested Termination	-3						-3
Additions	9						9
<b>October 1, 2021</b>	<b>43</b>	<b>17</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>75</b>

## Outline of Plan Provisions

Plan Type: Single-employer Defined Benefit Pension Plan

Effective Date: November 1, 1969. Plan amendment and restatement adopted December 4, 2019 effective December 14, 2019 with Ordinance No. 1765-2019. Subsequently amended by Ordinance No. 1769-2019, 1771-2020, 1778-2020, and 1793-2020.

Plan Administrator: The Board of Trustees

Board Composition: Two members are elected from among the police employees of the City, who are members of the plan, two city residents appointed by the Commission and one person is chosen by a majority of the previous four members.

Funding Requirements: Employer contributions are actuarially determined and subject to State statute. Employee contributions are as described below and may be amended by ordinance.

Plan Year: The 12-month period from October 1<sup>st</sup> to the next September 30<sup>th</sup>.

Member: Full-time police officers participate in the Plan immediately upon hire.

Credited Service: Employee service computed in years and completed calendar months. Members may purchase a total of 5 years of combined Credited Service for eligible military service or law enforcement service prior to employment with the City, and receive credit for that time upon full payment and vesting in the Plan. See Ordinance 1778-2020 regarding the "cross-credit" of service.

Vesting: Members become 100% vested after earning 10 years of Credited Service.

Basic Compensation: Total compensation actually paid in a Plan Year by the City including tax deferred compensation, as well as educational incentive monies, and excluding overtime in excess of 300 hours, commissions, bonuses, expense allowances and payment for accrued annual leave, accrued sick leave, and accrued compensatory leave.

Employee Contributions: 7.0% of Basic Compensation. Members receive benefits under the Plan no less than the value of their accumulated Employee Contributions with interest.

Members who terminate non-vested are entitled to the return of Employee Contributions accumulated with interest to the first day of the month in which termination occurs. The interest rate for accumulation was 5% from October 1, 1984 until October 1, 2019 when it was revised to 1.5%. Prior to October 1, 1984 a different interest rate was credited to Employee Contributions.

Average Monthly Compensation: The sum of the highest five successive Plan Years of Basic Compensation in the last ten Plan Years of employment divided by 60.

Normal Retirement Date: The first day of the month coincident with or next following attainment of age 52 and 10 years of Credited Service.

Accrued Benefit: For Members hired before January 2, 2013, the amount of monthly retirement income payable at the Normal Retirement Date is determined according to the following formula:

3% x Average Monthly Compensation x Credited Service up to 25 years

Plus

**FLA**

FREIMAN LITTLE ACTUARIES

1.5% x Average Monthly Compensation x Credited Service between 25 and 35 years

For Members hired on or after January 2, 2013, the amount of monthly retirement income payable at the Normal Retirement Date is determined according to the following formula:

3% x Average Monthly Compensation x Credited Service up to 25 years

The Accrued Benefit is payable in the form of a 10-year certain and continuous annuity. However, any member with a spouse shall receive an actuarially equivalent 50% joint and survivor annuity unless the member chooses another Optional Form of Retirement Income.

Members who terminate employment 100% vested prior the Normal Retirement Date are eligible to receive their Accrued Benefit once the age requirements for the Normal Retirement Date are met, provided Employee Contributions remain in the Plan.

Late Retirement Benefit: The amount of monthly retirement income payable to a Member who retires after the Normal Retirement Date is the greater of (i) the monthly retirement income which can be provided by the single-sum value of the Accrued Benefit payable if he had retired at the Normal Retirement Date, accumulated with interest from the Normal Retirement Date to the date the monthly retirement income payments are to commence, and (ii) the monthly retirement income computed as described for the Accrued Benefit using Credited Service and Average Monthly Compensation determined at the Member's actual retirement date.

Early Retirement Date: The first day of the month coincident with or next following the date an employee retires prior to the Normal Retirement Date after the earlier of attainment of age 44 and 25 years of Credited Service or age 50 and 10 years of Credited Service.

Early Retirement Benefit: The Accrued Benefit is reduced for commencement earlier than the Normal Retirement Date at a rate of 3/12% per month. However, the minimum monthly retirement income for a Member who retires before the Normal Retirement Date with 25 years Credited Service is 50% x Average Monthly Compensation.

Members who terminate employment 100% vested prior to reaching the Early Retirement Date age requirements may elect to receive an Early Retirement Benefit once the age requirements are met, provided Employee Contributions remain in the Plan.

Members who terminate employment 100% vested prior the Normal Retirement Date but on or after their Early Retirement Date but do not commence receipt of an Early Retirement Benefit at that time will receive a monthly retirement income not less than the monthly retirement income which can be provided by the single-sum value of the monthly early retirement income which would have been payable if he had retired immediately upon termination, accumulated with interest from termination to the date the monthly retirement income payments are to commence.

Members who recover from Disability Retirement and who were eligible for an Early Retirement Benefit at the date of disability may elect to receive this benefit upon recovery from disability.

Disability Retirement: This benefit is payable from the first day of the month coincident with or next following the date the Retirement Committee approves the Member's Disability Retirement. The benefit is payable in the form of a 10 year certain and continuous annuity. The last payment is that due next preceding the earlier of (1) the date of recovery prior to the Normal Retirement Date and (2) the later of the date of death or the 120<sup>th</sup> payment. The amount of monthly retirement income is determined as follows:

- (a) Non-Line of Duty: Members with less than 10 years of Credited Service upon disability receive a monthly retirement income which can be provided by the greater of (i) the single-sum value of the Accrued Benefit and (ii) 2 x Basic Compensation paid in the Plan Year



immediately preceding disability. The monthly retirement income which can be provided by (ii) is limited to  $60\% \times$  Anticipated Monthly Retirement Income at the Normal Retirement Date. In no event shall the benefit payable be less than the benefit required under section 185.18 of the Florida Statutes.

- (b) Non-Line of Duty: Members with 10 years of Credited Service or more upon disability receive a monthly retirement income which is the greater of (i) the monthly retirement income which can be provided by the single-sum value of the Accrued Benefit and (ii)  $30\% \times$  Basic Compensation paid in the Plan Year immediately preceding disability where the single-sum value of this monthly amount does not exceed  $100 \times$  the Anticipated Monthly Retirement Income at the Normal Retirement Date. In no event shall the benefit payable be less than the benefit required under section 185.18 of the Florida Statutes.
- (c) Line of Duty: Members receive a monthly retirement income which is  $50\% \times$  Basic Compensation paid in the Plan Year immediately preceding disability where the single-sum value of this monthly amount does not exceed  $100 \times$  the Anticipated Monthly Retirement Income at the Normal Retirement Date. In no event shall the benefit payable be less than the benefit required under section 185.18 of the Florida Statutes.

Members who recover from disability and re-enter the service of the City within 30 days of recovery will be deemed to have continuous service except that the period beginning with the first month for which Disability Retirement income was received and ending with the date of service re-entry is not considered as Credited Service.

Anticipated Monthly Retirement Income at the Normal Retirement Date: Determined as described for the Accrued Benefit, but instead using Anticipated Credited Service and Anticipated Average Monthly Compensation. Anticipated Credited Service is employee service computed in years and completed calendar months as if the member remains employed to the Normal Retirement Date. Anticipated Average Monthly Compensation is computed assuming that the last complete Plan Year of Basic Compensation is paid in each Plan Year, without change, to the Normal Retirement Date.

Survivor Benefit at Death of Disabled Member Prior to Disability Retirement: The designated beneficiary of a disabled Member who dies prior to receipt of Disability Retirement benefits is eligible to receive a monthly retirement income payable in the form of a 10 year certain and continuous annuity payable commencing on the first of the month coincident with or next following the date of the disabled Member's death. The designated beneficiary will receive a monthly retirement income which can be provided by the greater of (i) the single-sum value of the Accrued Benefit and (ii)  $2 \times$  Basic Compensation paid in the Plan Year immediately preceding disability not more than  $100 \times$  Anticipated Monthly Retirement Income at the Normal Retirement Date.

Survivor Benefit at Death of Vested Terminated Members: The designated beneficiary of vested Member who dies prior to retirement is eligible to receive a monthly retirement income payable in the form of a 10 year certain and continuous annuity payable commencing on the first of the month coincident with or next following the Member's death, which can be provided by the single-sum value of the Member's Accrued Benefit or Early Retirement Benefit.

Survivor Benefit at Death of Active Employee Prior to Normal Retirement Date: The designated beneficiary of a Member who dies while in active service prior to the Normal Retirement Date is eligible to receive, commencing on the first of the month coincident with or next following the Member's death, a monthly retirement income (payable in the form of a 10 year certain and continuous annuity) which can be provided by the greater of (i) the single-sum value of the Accrued Benefit as of the date of death, not less than the single-sum value of the Early Retirement Benefit which would have been payable if the Member had retired early on the date of death, and (ii)  $2 \times$  Basic Compensation paid in the Plan Year immediately preceding death not more than  $100 \times$  Anticipated Monthly Retirement Income at the Normal Retirement Date.



Survivor Benefit at Death of Active Employee After Normal Retirement Date: The designated beneficiary of a Member who dies while in active service after the Normal Retirement Date is eligible to receive, commencing on the first of the month coincident with or next following the Member's death, a monthly retirement income (payable in the form of a 10 year certain and continuous annuity) which can be provided by the single-sum value of the Late Retirement Benefit.

Optional Forms of Retirement Income: In addition to the 10 year certain and continuous form of annuity, also available under the terms of the Plan are the life only annuity and the joint and 50%, 66 2/3%, 75%, or 100% survivor annuity. With the joint and survivor options, the member may also elect the pop-up feature. The Plan also allows for other amounts and forms of retirement income that will meet the circumstances of the Participant, in the opinion of the Retirement Committee, and will not substantially affect the actuarial soundness of the Plan.

Deferred Retirement Option Program (DROP): Members are eligible to enter the DROP at the Normal Retirement Date. The Accrued Benefit is frozen and no further Employee Contributions are payable at DROP entry. The Accrued Benefit accumulates with interest in the DROP account and is payable as a single-lump sum (or as an actuarially equivalent annuity) upon DROP exit. The DROP account earns interest at a rate equal to the funds net rate of investment return minus 1% in administration fees, unless the DROP participant, as a one-time irrevocable option, elects a self-directed DROP as approved by the board of trustees. The maximum DROP participation duration is 5 years and participation will end if the employee resigns, dies or is terminated with cause prior to completion of the 5 years.

Defined Contribution (DC) Component: Ordinance 1709-2017 was adopted effective June 7, 2017 creating a DC component which will be funded by a portion of the premium tax revenues if the City and the collective bargaining representative do not reach mutual consent to use the premium tax revenues for an alternative means.

## Description of Assumptions and Methods

Assumed Rate of Investment Return: 7.65% per year, net of investment expenses (revised from 7.80% used in the prior actuarial valuation).

Inflation: 2.0% per year. Note this assumption is not used directly in the valuation.

Salary Increase – Individual: Whereas the salary increase assumption at October 1, 2020 was 6.0% per year at all service levels, the assumption has been revised for this October 1, 2021 actuarial valuation to be 5.5% per year for 0-10 years of service and 4.5% per year at service levels over 10 years. (Note overtime hours are not assumed to increase at the end of the member's career.)

Salary Increase – Total Payroll: Based on individual salary increase assumptions and other decrements assumed in the valuation of Plan liabilities.

Unfunded accrued liability is amortized as a level dollar amount.

Mortality: Mortality rates are those required by state statute. Mortality is as assumed for the Florida Retirement System (FRS) valuation as of July 1, 2019 and 2020 for special risk employees, as follows:

The following sex distinct tables are used with fully generational mortality improvements using sex distinct Scale MP-2018.

Active:	Male:	PubS.H-2010(B) male employee set forward 1 year
	Female:	PubS.H-2010 female employee set forward 1 year
Healthy Retiree:	Male:	PubS.H-2010(B) male healthy retiree set forward 1 year
	Female:	PubS.H-2010 female healthy retiree set forward 1 year

The following sex distinct tables are used with no mortality improvement projection.

Disabled Retiree:	Male:	80% PubG.H-2010 male disabled retiree + 20% PubS.H-2010 male disabled retiree
	Female:	80% PubG.H-2010 female disabled retiree + 20% PubS.H-2010 female disabled retiree

Juvenile rates are used for ages 15-17.

The active tables reference the healthy retiree rates, above, at ages 80+.

The healthy retiree tables reference the active mortality rates, above, before age 44.

Retirement: Unisex rates of retirement have been changed from those used in the prior actuarial valuation as shown in the following.

<u>Age</u>	<u>Prior</u>	<u>Current</u>	<u>Age</u>	<u>Prior</u>	<u>Current</u>
<=51	0.00	0.00	56	0.30	0.30
52	0.25	0.30	57	0.35	0.35
53	0.30	0.30	58	0.40	0.40
54	0.30	0.30	59	0.50	0.50
55	0.30	0.30	>=60	1.00	1.00

Termination: Unisex rates of termination have been changed from those used in the prior actuarial valuation as shown in the following.

<u>Service</u>	<u>Prior</u>	<u>Current</u>	<u>Service</u>	<u>Prior</u>	<u>Current</u>	<u>Service</u>	<u>Prior</u>	<u>Current</u>
0	0.0600	0.1000	9	0.0375	0.0375	18	0.0150	0.0150
1	0.0575	0.1000	10	0.0350	0.0350	19	0.0150	0.0150
2	0.0550	0.0925	11	0.0325	0.0325	20	0.0150	0.0150
3	0.0525	0.0900	12	0.0300	0.0300	21	0.0150	0.0150
4	0.0500	0.0850	13	0.0275	0.0275	22	0.0150	0.0150
5	0.0475	0.0825	14	0.0250	0.0250	23	0.0150	0.0150
6	0.0450	0.0725	15	0.0200	0.0200	24	0.0150	0.0150
7	0.0425	0.0700	16	0.0175	0.0175	>=25	0.0000	0.0000
8	0.0400	0.0575	17	0.0150	0.0150			

Disability: Sex distinct rates as used for special risk employees in the Florida Retirement System actuarial valuation report as of July 1, 2005. Linear interpolation has been used between the rates shown in five year age increments, as follows:

Age	Line-of-Duty		Age	Not Line-of-Duty	
	Male	Female		Male	Female
20	0.012%	0.008%	20	0.037%	0.036%
25	0.012%	0.008%	25	0.037%	0.036%
30	0.017%	0.016%	30	0.043%	0.046%
35	0.029%	0.037%	35	0.055%	0.075%
40	0.051%	0.068%	40	0.087%	0.118%
45	0.087%	0.106%	45	0.140%	0.259%
50	0.138%	0.153%	50	0.292%	0.318%
55	0.215%	0.230%	55	0.446%	0.492%
60	0.301%	0.285%	60	0.628%	0.597%
65+	0.231%	0.143%	65+	0.698%	0.380%

Funding Method: Entry Age Normal (level percent of salary)

A description of the funding method is found on the next page entitled "Glossary of Actuarial Terms."

## Glossary of Actuarial Terms

Present Value of Benefits (PVB): The present value, as of the valuation date, of all benefits that will become payable by the Plan for the current group of members in the census.

Normal Cost (NC): Under the Individual Entry Age Normal Cost Method, the annual normal cost for each individual active member is determined as the amount, from the date of employment to the date of retirement, sufficient to accumulate the value of the member's benefit at the time of retirement. The annual normal cost is a constant percentage of the member's projected covered pay.

Accrued Liability (AL): This is the portion of the PVB attributable to the past at the valuation date. For active members, AL is the annual NC accumulated from date of entry to the valuation date for each member. For retired and terminated members, the PVB and the AL are equal. The AL is the estimated liability owed by the pension fund at the valuation date.

Unfunded Accrued Liability (UAL): Any excess of the Accrued Liability over the fund assets. A negative UAL indicates fund assets are greater than the Accrued Liability, otherwise known as a surplus. Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Actuarial Value of Assets: The value of assets used in the actuarial valuation of the Plan which is compared to the AL to determine the UAL and minimum funding requirements. A method may be used to smooth out short term volatility in the fair market value of assets. In this valuation, the Actuarial Value of Assets has been calculated to smooth out unexpected fluctuations in the fair market value of assets over a 5-year period.