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City of Rockledge

Police Employees Retirement Plan

Actuarial Valuation as of October 1, 2020

February 10, 2021

REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS
FOR THE PLAN AND FISCAL YEAR
BEGINNING OCTOBER 1, 2021

February 10, 2021

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

RE: Actuarial Valuation as of October 1, 2020

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2020 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, 2022, 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 7.80% 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."

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,

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

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

Fiscal Year Ending September 30,	2021	2022
Minimum Funding Requirements		
Minimum Funding Requirement		
Minimum Required City Contribution	$214,932	$120,224
Estimated State Contribution	229,301	244,109
Total Minimum Funding Requirement (City plus State)	$444,233	$364,333
Minimum Required City Contribution	9.71%	5.84%
Estimated State Contribution	10.37%	11.86%
Total Minimum Funding Requirement (City plus State)	20.08%	17.70%

Note: $364,333 is the minimum funding requirement for fiscal 2022 including both contributions from the City and those from the State of Florida. We have estimated the City portion as $120,224 which must be deposited on December 15, 2021.

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 2022 is at least $364,333.

Funded Status

Valuation as of October 1,	2019	2020
Accrued Liability (AL)	$16,328,741	$16,818,163
Actuarial Value of Assets	(15,706,702)	(16,830,952)
Unfunded Accrued Liability (UAL)	$622,039	($12,789)
Funded Percentage	96.19%	100.08%

Key Assumptions

Valuation as of October 1,	2019	2020
Assumed Investment Return, Net of Expenses	7.80%	7.80%
Salary Increase Assumption	6.00%	6.00%

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 decreased from 43 to 40 members due 2 DROP entrants, 5 non-vested terminations, and 4 new hires. While the number of terminated members due future monthly benefits stayed the same at 6, the number of members receiving payments increased from 21 to 23.

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

Year Ended	Individual		Total Payroll
September 30,	Actual	Expected	Increase
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%)
2011	5.3%	6.0%	4.5%
Average:	3.5%	6.0%	(1.1%)

Pay increases were less than expected with the actual average pay increase amongst continuing actives at 2.5% in comparison to the 6.0% salary increase assumption. In addition, total payroll decreased 1.1% 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 as a level dollar amount.

Overall, there was a demographic gain primarily due to the 2 DROP entrants during the year and pay increases less than expected. Should a pattern of consistent gains or losses develop, assumptions will be adjusted as needed. We recommend a review of actuarial experience be conducted.

Assets

The investment return on the Market Value of Assets was 10.77% and the return on the Actuarial Value of Assets was 8.76%, each in comparison to the 7.80% net investment return assumption. 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.

12-Month Period Ended September 30,	% Market Return	% Actuarial Return	% Assumed Return
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 %
2011	(2.80) %	0.57 %	8.00 %
Average	7.34 %	5.97 %	7.96 %

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

Plan Provisions

Ordinance 1778-2020 was adopted August 19, 2020 regarding the “cross-credit” of service. Prior to this ordinance, service with the City was granted within each of the respective Plans without regard to whether the Participant may have earned service in another plan of the City. Ordinance 1778-2020 allows Credited Service earned by a Participant in another plan of the City to be included for the purposes of vesting and benefits eligibility only if the Participant did not receive a refund of employee contributions from the Plan from which the Participant transferred. This “cross-credit” of service is not used to compute the amount of benefits payable under the Plan to which the Participant transferred. We understand the proposed ordinance does not grant cross-credit for any Participants who were Participants of another Plan of the City prior to the enactment of this ordinance amendment.

As noted in our impact statement dated May 13, 2020, we do not have any data regarding the likelihood of transfers from one Plan to another. As such, we are unable to perform any calculations estimating a cost impact. The determination of the liabilities and required contributions for each of the Plans would take into account transfers if and when they occur in the future. As a result, there is no anticipated material impact on the funding of the Plans for the proposed amendment at this time.

Assumptions and Methods

The mortality assumption is as required by state statute. In the prior valuation the mortality assumption was that used for special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2016, 2017 and 2018. Mortality was revised for this October 1, 2020 actuarial valuation to that assumed for special risk employees in the FRS valuation as of July 1, 2019 and 2020.

Note that the 7.80% net assumed return is unchanged from the prior valuation. The 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.

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%.

	Funded Status on Market Value of Assets Basis					
As of 10/1	2% Decrease	1% Decrease	Valuation Net Assumed Return	1% Increase	2% Increase	Valuation Net Assumed Return Assumption
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.

Year Ending 9/30	Market Value of Assets	Payroll	Asset Volatility Ratio
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.

Year Ending 9/30	Benefit Payments	Contributions	Ratio of Benefit Payments to Contributions
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.

Year Ending 9/30	Contributions	Disbursements	Assets	Net Cash Flow Divided by Assets
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, 2019**		**October 1, 2020**	
Stocks	$10,967,737	71%	$12,200,588	72%
Fixed Income Securities	2,698,940	17%	2,890,145	17%
Cash and Cash Equivalents	205,971	1%	184,169	1%
Real Estate	1,470,432	9%	1,489,669	9%
Net Receivables	248,786	2%	251,898	1%
Fair Market Value of Assets	$15,591,866	100%	$17,016,469	100%

Reconciliation of Market Value of Assets

Year Ending September 30,			2019	2020
1.	**Market Value of Assets at Beginning of Year**		$14,965,828	$15,591,866
2.	Contributions			
	a.	Employer	$238,901	$223,878
	b.	State	229,301	244,109
	c.	Plan Members	187,557	154,795
	d.	Total Contributions	$655,759	$622,782
3.	Investment Income			
	a.	Realized Appreciation (Depreciation)	($2,480)	$58,268
	b.	Unrealized Appreciation (Depreciation)	219,261	1,350,863
	c.	Interest plus Dividends	320,462	310,472
	d.	Investment Expense	(45,437)	(53,676)
	e.	Net Investment Income	$491,806	$1,665,927
4.	Deductions			
	a.	Benefits	($428,705)	($414,525)
	b.	Refund of Contributions	(28,957)	(25,714)
	c.	DROP Balance Disbursement	0	(357,790)
	d.	Administrative Expense	(63,865)	(66,077)
	e.	Total Deductions	($521,527)	($864,106)
5.	Net Increase		$626,038	$1,424,603
6.	**Market Value of Assets at End of Year**		$15,591,866	$17,016,469
7.	**Return on Market Value of Assets = 2I / (A + B – I)**		3.27%	10.77%

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, 2020				$17,016,469
2.	Phase-In Gains (Losses) Over Five Year Period				
		Year Ending	Original Gain (Loss)	Percent Unrecognized	Unrecognized Gain (Loss)
	a.	September 30, 2020	$463,540	80%	$370,832
	b.	September 30, 2019	(676,858)	60%	(406,115)
	c.	September 30, 2018	263,486	40%	105,394
	d.	September 30, 2017	577,029	20%	115,406
	e.	Total			$185,517
3.	Preliminary Actuarial Value of Assets				$16,830,952
4.	Corridor Around Market Value				
	a.	Minimum = 80% of Market Value of Assets			$13,613,175
	b.	Maximum = 120% of Market Value of Assets			$20,419,763
	c.	Corridor Adjustment to Preliminary Actuarial Value			$0
5.	Actuarial Value of Assets as of October 1, 2020				$16,830,952

Development of Historical Gain or Loss on Market Value of Assets

Fiscal Year End		2020	2019
1.	Market Value of Assets - Beginning of Year	$15,591,866	$14,965,828
2.	Expected Interest on Assets	1,216,166	1,167,335
3.	Contributions	622,782	655,759
4.	Benefit Payments + Administrative Expenses	(864,106)	(521,527)
5.	Interest on items (3) and (4)	(13,779)	1,329
6.	Expected Value of Assets at End of Year	$16,552,929	$16,268,724
7.	Market Value of Assets - End of Year	$17,016,469	$15,591,866
8.	Gain (Loss) for Plan Year = (7) - (6)	$463,540	$(676,858)

Fiscal Year End		2018	2017
1.	Market Value of Assets - Beginning of Year	$13,509,157	$11,860,589
2.	Expected Interest on Assets	1,080,733	948,847
3.	Contributions	626,991	568,632
4.	Benefit Payments + Administrative Expenses	(516,683)	(446,005)
5.	Interest on items (3) and (4)	2,144	65
6.	Expected Value of Assets at End of Year	$14,702,342	$12,932,128
7.	Market Value of Assets - End of Year	$14,965,828	$13,509,157
8.	Gain (Loss) for Plan Year = (7) - (6)	$263,486	$577,029

Historical Asset Values

Year Ending September 30,	Actuarial Value of Assets	Market Value of Assets	% Market Return	% Actuarial Return	% Assumed Return
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 %
2011	8,414,417	7,566,604	(2.80)%	0.57 %	8.00 %

Historical Contribution Amounts

Year Ending September 30,	Employer	State	Members	Total
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
2011	167,856	166,718	167,856	502,430

Historical Deductions from Fund

Year Ending September 30,	Benefits	Refunds	Administrative Expense	Total
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
2011	247,648	38,828	48,140	334,616

Historical State Contributions

Year Ending September 30	State Contributions
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,			2019	2020
1.	**Active Members**			
	a.	Retirement Benefits	$8,480,818	$7,636,294
	b.	Deferred Benefits	599,778	595,217
	c.	Survivor Benefits	197,080	138,456
	d.	Disability Retirement	324,665	310,675
	e.	Total for Active Members	$9,602,341	$8,680,642
2.	**Inactive Members**			
	a.	Retired Members	$9,750,199	$10,828,371
	b.	Terminated members	1,111,214	1,172,774
	c.	Beneficiaries	0	0
	d.	Disability Retirement	134,520	133,271
	e.	Total for Inactive Members	$10,995,933	$12,134,416
3.	**Present Value of Benefits**		$20,598,274	$20,815,058

Accrued Liability

Valuation as of October 1,			2019	2020
1.	**Active Members**			
	a.	Retirement Benefits	$5,079,390	$4,439,686
	b.	Deferred Benefits	55,229	77,245
	c.	Survivor Benefits	77,870	51,005
	d.	Disability Retirement	120,319	115,811
	e.	Total for Active Members	$5,332,808	$4,683,747
2.	**Inactive Members**			
	a.	Retired Members	$9,750,199	$10,828,371
	b.	Terminated members	1,111,214	1,172,774
	c.	Beneficiaries	0	0
	d.	Disability Retirement	134,520	133,271
	e.	Total for Inactive Members	$10,995,933	$12,134,416
3.	**Accrued Liability**		$16,328,741	$16,818,163

Normal Cost

Valuation as of October 1,			2019	2020
1.	**Preliminary Normal Cost**			
	a.	Retirement Benefits	$330,979	$307,085
	b.	Deferred Benefits	51,523	47,736
	c.	Survivor Benefits	11,444	8,357
	d.	Disability Retirement	20,259	18,975
	e.	Total	$414,205	$382,153
2.	**Total Normal Cost**			
	a.	Preliminary Normal Cost	$414,205	$382,153
	b.	Estimated Administrative Expense	63,865	66,077
	c.	Total Normal Cost	$478,070	$448,230
	d.	Total Normal Cost as a Percent of Pay	21.61%	21.78%
3.	**Employer Normal Cost**			
	a.	Preliminary Normal Cost	$414,205	
	b.	Actual Administrative Expense	66,077	
	c.	Actual Employee Contributions	(154,795)	
	d.	Employer Normal Cost	$325,487	
4.	**Valuation Payroll**		$2,212,061	$2,058,106

Unfunded Accrued Liability

Unfunded Accrued Liability

1.	Accrued Liability	$16,818,163
2.	Actuarial Value of Assets	(16,830,952)
3.	Unfunded Accrued Liability	$(12,789)

Determination of Expected Unfunded Accrued Liability

1.	Unfunded Accrued Liability as of Prior Year	$622,039
2.	Interest for a full year on (1)	48,519
3.	Employer Normal Cost (Including Administrative Expenses) Prior Yr.	325,487
4.	Interest for a full year on (3)	25,388
5.	City Plus State Contribution	(467,987)
6.	Interest on Contribution for Time on Deposit	(13,884)
7.	Change in Plan, Methods or Assumptions	(321,354)
8.	Expected Unfunded Accrued Liability	$218,208

Calculation of (Gain) or Loss

1.	Actual Unfunded Accrued Liability	$(12,789)
2.	Expected Unfunded Accrued Liability	218,208
3.	Total (Gain) or Loss	$(230,997)

Reconciliation of Unfunded Accrued Liability

1.	Unfunded Accrued Liability as of Prior Year	$622,039
2.	Total Change in Unfunded Accrued Liability	
	a. Expected Change in Unfunded Accrued Liability	$(82,477)
	b. Change in Plan, Methods or Assumptions	(321,354)
	c. Change Due to (Gain) or Loss	
	i. Portion of (Gain) / Loss Due to Investments	$(154,230)
	ii. Portion of (Gain) / Loss Due to Demographic Experience	(76,767)
	iii. Total (Gain) or Loss	$(230,997)
	d. Total Change in Unfunded Accrued Liability	$(634,828)
3.	Unfunded Accrued Liability	$(12,789)

Determination of Investment Gain (Loss)

1.	Actuarial Value of Assets - Beginning of Year	$15,706,702
2.	Expected Interest on Beginning Value	1,225,123
3.	Contributions (Employer)	223,878
4.	Contributions (State)	244,109
5.	Contributions (Employee)	154,795
6.	Benefit Payments	(798,029)
7.	Administrative Expenses	(66,077)
8.	Interest on Contributions and Disbursements	(13,779)
9.	Expected Value of Assets at End of Year	$16,676,722
10.	Actuarial Value of Assets - End of Year	$16,830,952
11.	Gain (Loss) for Plan Year = (10) - (9)	$154,230
12.	Actuarial Investment Income	$1,365,574
13.	Return on Actuarial Value of Assets	8.76 %

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)	$(41,636)	$(36,695)	15	$(3,928)
2.	2006	Actuarial Gain	(154,247)	(50,183)	(44,227)	16	(4,576)
3.	2007	Actuarial Gain	(538,306)	(176,179)	(155,270)	17	(15,580)
4.	2008	Actuarial Loss	1,693,799	549,373	484,173	18	47,261
5.	2008	Method Change	7,606	2,496	2,200	18	215
6.	2008	Method Change	(1,183,820)	(388,467)	(342,363)	18	(33,419)
7.	2009	Actuarial Loss	449,531	147,471	129,969	19	12,374
8.	2010	Actuarial Loss	46,391	15,175	13,374	20	1,245
9.	2011	Actuarial Loss	489,026	159,132	140,246	21	12,789
10.	2012	Actuarial Gain	(278,260)	(89,886)	(79,218)	22	(7,090)
11.	2012	Asmp/Method Chg	363,487	117,418	103,483	22	9,262
12.	2013	Actuarial Loss	22,767	7,288	6,423	23	565
13.	2013	Assumption Change	10,161	3,250	2,864	23	252
14.	2014	Actuarial Loss	42,565	26,893	23,701	24	2,053
15.	2014	Assumption Change	11,211	7,085	6,244	24	541
16.	2015	Actuarial Loss	217,978	134,586	118,613	20	11,041
17.	2015	Assumption Change	11,608	7,168	6,317	20	588
18.	2016	Actuarial Gain	(108,646)	(71,027)	(62,597)	21	(5,708)
19.	2016	Assumption Change	226,678	148,189	130,602	21	11,910
20.	2017	Actuarial Gain	(79,994)	(52,558)	(46,320)	22	(4,146)
21.	2017	Assumption Change	(3,883)	(2,552)	(2,249)	22	(201)
22.	2018	Actuarial Gain	(226,939)	(179,576)	(158,264)	23	(13,927)
23.	2018	Assumption Change	321,084	254,074	223,920	23	19,704
24.	2019	Actuarial Loss	98,384	96,998	85,486	24	7,407
25.	2019	Plan Change	(12,487)	(12,311)	(10,850)	24	(940)
26.	2020	Actuarial Gain	(230,997)	(230,997)	(230,997)	25	(19,732)
27.	2020	Assumption Change	(321,354)	(321,354)	(321,354)	25	(27,450)
Scheduled Amortization Payment							$510
Outstanding Bases				$59,870	$(12,789)		
Unfunded Accrued Liability					(12,789)		

Projected Unfunded Accrued Liability and Amortization Payments

Plan Year Beginning October 1	Total Outstanding Bases	Total Amortization Payment
2020	$(12,789)	$510
2021	(14,336)	510
2022	(16,004)	508
2023	(17,800)	509
2024	(19,737)	507
2025	(21,823)	510
2026	(24,075)	506
2027	(26,499)	508
2028	(29,113)	504
2029	(31,928)	510
2030	(34,968)	506
2031	(38,241)	511
2032	(41,774)	503
2033	(45,575)	512
2034	(49,682)	508
2035	(54,104)	4,439
2036	(63,110)	9,011
2037	(77,746)	24,600
2038	(110,330)	10,531
2039	(130,288)	(1,836)
2040	(138,471)	(14,711)
2041	(133,413)	(33,699)
2042	(107,492)	(31,527)
2043	(81,890)	(38,122)
2044	(47,182)	(47,182)
2045	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

Valuation as of October 1, Funding for Year Ending September 30,	2019 2021	2020 2022
1. Minimum Required Contribution		
a. Total Normal Cost	$478,070	$448,230
b. Amortization of Unfunded Accrued Liability	54,115	510
c. Beginning of Year Contribution	$532,185	$448,740
d. Interest	66,892	59,660
e. Minimum Required Contribution	$599,077	$508,400
2. Contribution by Source - $ Amount		
a. City Policy Contribution	$214,932	$120,224
b. Expected State Contribution	229,301	244,109
c. Expected Member Contributions	154,844	144,067
d. Total	$599,077	$508,400
3. Contribution by Source - % Pay		
a. City Policy Contribution	9.71 %	5.84 %
b. Expected State Contribution	10.37 %	11.86 %
c. Expected Member Contributions	7.00 %	7.00 %
d. Total	27.08 %	24.70 %
4. Valuation Payroll	$2,212,061	$2,058,106
5. Key Assumptions		
a. Net Assumed Rate of Return	7.80 %	7.80 %
b. Assumed Valuation Payroll Increase	0.00 %	0.00 %

Note: The $120,224 minimum funding requirement for fiscal 2022 must be deposited on December 15, 2021. The actual premium tax distribution for the fiscal years ending September 30, 2021 and 2022 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
As of Prior Valuation	**$622,039**	**96.19 %**		
Changes in due to:				
Normal Operation of Plan	539,562	96.87 %	$(82,477)	0.68 %
Investment Experience	385,332	97.76 %	(154,230)	0.89 %
Demographic Experience	308,565	98.20 %	(76,767)	0.44 %
New Mortality	(12,789)	100.08 %	(321,354)	1.88 %
Total Changes			$(634,828)	3.89 %
As of Current Valuation	**$(12,789)**	**100.08 %**		

Reconciliation of City Minimum Funding Requirement

	Dollar Amount	% of Pay
City Required Contribution for Fiscal 2021	**$214,932**	**9.71 %**
Changes in Contribution due to:		
Normal Operation of Plan	$0	0.00 %
Change in Expenses	2,420	0.11 %
Change in State $	(13,943)	(0.63)%
Investment Experience	(14,415)	(0.65)%
Demographic Experience	(31,905)	(0.91)%
New Mortality	(36,865)	(1.79)%
Total Changes	$(94,708)	(3.87)%
City Required Contribution for Fiscal 2022	**$120,224**	**5.84 %**

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,	2019	2020
1. Actuarial present value of accumulated benefits		
a. Participants currently receiving benefits	$9,884,719	$10,961,642
b. Other participants	4,564,515	4,003,623
c. Vested participants	$14,449,234	$14,965,265
d. Nonvested participants	713,226	718,327
e. Total	$15,162,460	$15,683,592
2. Change in actuarial present value of accumulated benefits		
a. Actuarial present value of accumulated benefits beginning of year		$15,162,460
b. Increase (decrease) during year attributable to:		
i. Plan amendment		$0
ii. Change in assumptions or methods		(294,712)
iii. Increase for interest and probability of payment due to decrease in discount period and benefits accrued		1,613,873
iv. Benefits paid		(798,029)
v. Other		0
vi. Net increase (decrease)		$521,132
c. Actuarial present value of accumulated benefits end of year		$15,683,592

Other Disclosures Required by the State of Florida

Valuation as of October 1,	2019	2020
Present value of active member:		
Future salaries (attained age)	$23,576,188	$22,259,766
Future contributions (attained age)	$1,650,333	$1,558,184
Balance of contributions with interest for actives	$1,547,987	$1,405,222

Required Disclosure Under F.S. 112.664(1)

As required under F.S. Section 112.664(1) we have produced the following information:

(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 (5.80%)	Current Discount Rate (7.80%)	2% Increase (9.80%)
Total pension liability	$20,927,599	$16,818,163	$13,921,485
Plan fiduciary net position	(17,016,469)	(17,016,469)	(17,016,469)
Net pension liability	$3,911,130	$(198,306)	$(3,094,984)
Plan fiduciary net position as a percentage of the total pension liability	81.31%	101.18%	122.23%
Years of benefit payments:			
Expected for current members:	97	97	97
Paid for with current assets:	19.32	25.82	97.00
City Plus State Contribution Requirement, Plus Expected Employee Contributions			
Dollar Amount	$1,038,115	$508,400	$380,003
Percent of Payroll	50.44%	24.70%	18.46%

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.

Year Ending September 30,	**2020**	**2019**	**2018**	**2017**	**2016**
Assumed rate of return	7.8%	7.8%	8.0%	8.0%	8.0%
Actual rate of return	10.8%	3.3%	9.9%	12.8%	9.7%
Percentages of assets in:					
Cash	2%	3%	2%	2%	1%
Equity	72%	71%	77%	74%	71%
Bond	17%	17%	16%	19%	21%
Alternative	9%	9%	5%	5%	7%
Total	100%	100%	100%	100%	100%

Section 4 Supplementary Information

Summary of Participant Data

Member Statistics

Valuation as of October 1,	**2019**	**2020**
Active Participants		
Number	43	40
Average Age	36.3	36.6
Average Credited Service	8.3	8.3
Percent Male	72.1	77.5
Average Valuation Salary	$51,443	$51,453
Total Valuation Salary	$2,212,061	$2,058,106
Payroll Covered in Valuation	$2,212,061	$2,058,106
Terminated with Rights to Deferred Benefits		
Number	6	6
Average Age	44.9	45.9
Percent Male	66.7	66.7
Average Monthly Benefit	$1,844	$1,844
Retirements (DROP and Service Retirees)		
Number	20	22
Average Age	60.4	60.8
Percent Male	100.0	90.9
Average Monthly Benefit	$3,266	$3,379
Total of DROP Account Balances September 30	$732,916	$787,762
Beneficiaries		
Number	0	0
Average Age	0.0	0.0
Percent Male	0.0	0.0
Average Monthly Benefit	$0	$0
Disability Retirements		
Number	1	1
Average Age	58.1	59.1
Percent Male	100.0	100.0
Average Monthly Benefit	$1,239	$1,239

Number of Active Members by Age and Service as of October 1, 2020

Age	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	Total
< 20									
< 25		2							2
< 30	4	6	1						11
< 35		6	1	1					8
< 40		1	1	5	1				8
< 45			1			1			2
< 50				1	1				2
< 55			1	1	2		2		6
< 60			1						1
< 65									
Total	4	15	6	8	4	1	2		40

Active Valuation Pay by Age and Service as of October 1, 2020

Age	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	Total
< 20									
< 25		41,878							41,878
< 30	41,100	43,269	44,208						42,566
< 35		43,095	46,368	64,377					46,164
< 40		42,886	49,163	57,465	62,543				55,240
< 45			48,296			64,721			56,509
< 50				50,053	55,855				52,954
< 55			49,255	58,851	56,615		75,579		62,082
< 60			103,480						103,480
< 65									
Total	41,100	42,988	56,795	57,576	57,907	64,721	75,579		51,453

Reconciliation of Plan Participants

	Active	Retired	DROP	Deferred Vested	Disabled	Survivor	Total
October 1, 2019	**43**	**11**	**9**	**6**	**1**	**0**	**70**
DROP Entrant	(2)		2				0
Retired		3	(3)				0
Nonvested Termination	(5)						(5)
Additions	4						4
October 1, 2020	**40**	**14**	**8**	**6**	**1**	**0**	**69**

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, and 1778-2020.

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 1st to the next September 30th.

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

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^{th} 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% x 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% x Basic Compensation paid in the Plan Year immediately preceding disability where the single-sum value of this monthly amount does not exceed 100 x 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% x Basic Compensation paid in the Plan Year immediately preceding disability where the single-sum value of this monthly amount does not exceed 100 x 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 x Basic Compensation paid in the Plan Year immediately preceding disability not more than 100 x 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 x Basic Compensation paid in the Plan Year immediately preceding death not more than 100 x 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: 7.80% per year net of investment expenses

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

Salary Increase – Individual: 6.0% per year (It is assumed that overtime hours are not increased 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: The mortality table has been changed from the prior valuation. As of October 1, 2020, the mortality table is that used for special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2019 and 2020, as required by state statue.

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.

In the prior valuation the mortality table was that used for special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2016, 2017 and 2018, as required by state statute.

Healthy mortality (Pre-retirement):

Males: 10% RP-00 Combined Healthy White Collar +
90% RP-00 Combined Healthy Blue Collar

Females: 100% RP-00 Combined Healthy White Collar

Both male and female rates fully generational using Scale BB

Healthy mortality (Post-retirement):

Males: 10% RP-00 Annuitant White Collar +
90% RP-00 Annuitant Blue Collar

Females: 100% RP-00 Annuitant White Collar

Both male and female rates fully generational using Scale BB

Disabled mortality: Males: 60% RP-00 Disabled Retiree Set Back 4 Years +

40% RP-00 Annuitant White Collar
Females: 60% RP-00 Disabled Retiree Set Forward 2 Yrs +
40% RP-00 Annuitant White Collar
No mortality improvement is assumed for disabled lives.

Retirement: Unisex rates based on the experience of the Rockledge police officers from 1999 through 2005 (and expectations of the future), as follows:

Age	Rate	Age	Rate
52	0.250	57	0.350
53	0.300	58	0.400
54	0.300	59	0.500
55	0.300	60	1.000
56	0.300		

Termination: Unisex rates based on the experience of the Rockledge police officers from 1999 through 2005, as follows:

Service	Rate	Service	Rate	Service	Rate	Service	Rate
0	0.0600	7	0.0425	14	0.0250	21	0.0150
1	0.0575	8	0.0400	15	0.0200	22	0.0150
2	0.0550	9	0.0375	16	0.0175	23	0.0150
3	0.0525	10	0.0350	17	0.0150	24	0.0150
4	0.0500	11	0.0325	18	0.0150	>=25	0.0000
5	0.0475	12	0.0300	19	0.0150		
6	0.0450	13	0.0275	20	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:

	Line-of-Duty			Not Line-of-Duty	
Age	Male	Female	Age	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.