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City of Rockledge

Police Employees Retirement Plan

Actuarial Valuation as of October 1, 2019

APPROVED BY POLICE EMPLOYEES' RETIREMENT BOARD AT ITS QUARTERLY MEETING ON FEBRUARY 21, 2020.

February 14, 2020

REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS
FOR THE PLAN AND FISCAL YEAR
BEGINNING OCTOBER 1, 2020

February 14, 2020

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

RE: Actuarial Valuation as of October 1, 2019

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2019 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, 2021, 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.

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."

Please let us know when we may present these results to you in person and answer any questions you may have.

Sincerely,

Chad M. Little, ASA, EA
Partner, Consulting Actuary
Enrollment Number 17-6619

Paula C. Freiman, ASA, EA
Partner, Consulting Actuary
Enrollment Number 17-5796

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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,	**2020**	**2021**
Minimum Funding Requirements		
Minimum Funding Requirement		
Minimum Required City Contribution	$223,878	$214,932
Estimated State Contribution	216,318	229,301
Total Minimum Funding Requirement (City plus State)	$440,196	$444,233
Minimum Required City Contribution	10.73%	9.71%
Estimated State Contribution	10.37%	10.37%
Total Minimum Funding Requirement (City plus State)	21.10%	20.08%

Note: $444,233 is the minimum funding requirement for fiscal 2021 including both contributions from the City and those from the State of Florida. We have estimated the City portion as $214,932 which must be deposited on December 15, 2020.

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 2021 is at least $444,233.

Funded Status

Valuation as of October 1,	**2018**	**2019**
Accrued Liability (AL)	$15,168,036	$16,328,741
Actuarial Value of Assets	(14,500,525)	(15,706,702)
Unfunded Accrued Liability (UAL)	$667,511	$622,039
Funded Percentage	95.60%	96.19%

Key Assumptions

Valuation as of October 1,	**2018**	**2019**
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 changed from 44 to 43 members due to 9 new hires, 3 DROP entrants, 2 vested terminations and 5 non-vested terminations. 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**
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%
2010	0.3%	6.0%	1.4%
Average:	3.3%	6.0%	(0.3%)

Pay increases were more than expected with the actual average pay increase amongst continuing actives at 10.2% in comparison to the 6.0% salary increase assumption. In addition, total payroll decreased 0.3% 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 loss primarily due to the 3 DROP entrants during the year and pay increases greater 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 3.27% and the return on the Actuarial Value of Assets was 7.36%, each in comparison to the 7.8% net investment return assumption. Because the return on the Actuarial Value of Assets was less than the net assumed investment return, there was an actuarial investment loss.

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
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 %
2010	7.44 %	2.13 %	8.00 %
Average	7.02 %	5.31 %	7.98 %

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

Plan Provisions

The following changes in Plan provisions were adopted after the October 1, 2019 actuarial valuation date.

Ordinance No. 1765-2019 adopted December 4, 2019 amended and restated the Plan, made a change where spousal consent is no longer required for optional form of benefit selection, and provided for a revision to employee contribution crediting from 5% interest accumulation to 1.5% effective October 1, 2019. This change in Plan provisions has been reflected in this October 1, 2019 actuarial valuation of the Plan. Whereas the accrued liability decreased due to this change in Plan provisions, there was a small increase to minimum funding requirements.

There is no material impact associated with Ordinance No. 1769-2019 adopted December 18, 2019 related to prior law enforcement service purchases or for Ordinance No. 1771-2020 adopted January 15, 2020 which provides for staggered trustee terms.

The impact of the change in Plan provisions 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.

Assumptions and Methods

There were no changes in Assumptions or Methods since the prior valuation of the Plan.

This October 1, 2019 actuarial valuation has been performed using a 7.8% net assumed rate of investment return assumption as directed by the Board of Trustees. The 7.8% 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.

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 in the fiscal year ending September 30, 2020 or 2021 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**
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
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
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
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, 2018**		**October 1, 2019**	
Stocks	$11,478,337	77%	$10,967,737	71%
Fixed Income Securities	2,437,184	16%	2,698,940	17%
Cash and Cash Equivalents	349,798	2%	205,971	1%
Real Estate	685,275	5%	1,470,432	9%
Net Receivables	15,234	0%	248,786	2%
Fair Market Value of Assets	$14,965,828	100%	$15,591,866	100%

Reconciliation of Market Value of Assets

Year Ending September 30,			**2018**	**2019**
1.	**Market Value of Assets at Beginning of Year**		$13,509,157	$14,965,828
2.	Contributions			
	a.	Employer	$259,625	$238,901
	b.	State	216,318	229,301
	c.	Plan Members	151,048	187,557
	d.	Total Contributions	$626,991	$655,759
3.	Investment Income			
	a.	Realized Appreciation (Depreciation)	$(22,322)	$(2,480)
	b.	Unrealized Appreciation (Depreciation)	1,042,939	219,261
	c.	Interest plus Dividends	362,938	320,462
	d.	Investment Expense	(37,192)	(45,437)
	e.	Net Investment Income	$1,346,363	$491,806
4.	Deductions			
	a.	Benefits	$(417,707)	$(428,705)
	b.	Refund of Contributions	(36,198)	(28,957)
	c.	DROP Balance Disbursement	0	0
	d.	Administrative Expense	(62,778)	(63,865)
	e.	Total Deductions	$(516,683)	$(521,527)
5.	Net Increase		$1,456,671	$626,038
6.	**Market Value of Assets at End of Year**		$14,965,828	$15,591,866
7.	**Return on Market Value of Assets = 2I / (A + B – I)**		9.93 %	3.27 %

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, 2019 — $15,591,866

2. Phase-In Gains (Losses) Over Five Year Period

	Year Ending	Original Gain (Loss)	Percent Unrecognized	Unrecognized Gain (Loss)
a.	September 30, 2019	$(676,858)	80%	$(541,486)
b.	September 30, 2018	263,486	60%	158,092
c.	September 30, 2017	577,029	40%	230,812
d.	September 30, 2016	188,731	20%	37,746
e.	Total			$(114,836)

3. Preliminary Actuarial Value of Assets — $15,706,702

4. Corridor Around Market Value

a.	Minimum = 80% of Market Value of Assets	$12,473,493
b.	Maximum = 120% of Market Value of Assets	$18,710,239
c.	Corridor Adjustment to Preliminary Actuarial Value	$0

5. Actuarial Value of Assets as of October 1, 2019 — $15,706,702

Development of Historical Gain or Loss on Market Value of Assets

Fiscal Year End		2019	2018
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)	1,329	2,144
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

Fiscal Year End		2017	2016
1.	Market Value of Assets - Beginning of Year	$11,860,589	$10,698,704
2.	Expected Interest on Assets	948,847	855,896
3.	Contributions	568,632	568,265
4.	Benefit Payments + Administrative Expenses	(446,005)	(448,165)
5.	Interest on items (3) and (4)	65	(2,842)
6.	Expected Value of Assets at End of Year	$12,932,128	$11,671,858
7.	Market Value of Assets - End of Year	$13,509,157	$11,860,589
8.	Gain (Loss) for Plan Year = (7) - (6)	$577,029	$188,731

Historical Asset Values

Year Ending September 30,	Actuarial Value of Assets	Market Value of Assets	% Market Return	% Actuarial Return	% Assumed Return
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 %
2010	8,262,345	7,614,445	7.44 %	2.13 %	8.00 %

Historical Contribution Amounts

Year Ending September 30,	Employer	State	Members	Total
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
2010	159,519	162,716	159,519	481,754

Historical Deductions from Fund

Year Ending September 30,	Benefits	Refunds	Administrative Expense	Total
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
2010	247,648	61,665	44,177	353,490

Historical State Contributions

Year Ending September 30	State Contributions
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,			2018	2019
1.	**Active Members**			
	a.	Retirement Benefits	$8,871,509	$8,480,818
	b.	Deferred Benefits	546,338	599,778
	c.	Survivor Benefits	189,454	197,080
	d.	Disability Retirement	310,825	324,665
	e.	Total for Active Members	$9,918,126	$9,602,341
2.	**Inactive Members**			
	a.	Retired Members	$8,131,681	$9,750,199
	b.	Terminated members	855,295	1,111,214
	c.	Beneficiaries	0	0
	d.	Disability Retirement	136,294	134,520
	e.	Total for Inactive Members	$9,123,270	$10,995,933
3.	**Present Value of Benefits**		$19,041,396	$20,598,274

Accrued Liability

Valuation as of October 1,		2018	2019
1.	**Active Members**		
a.	Retirement Benefits	$5,783,165	$5,079,390
b.	Deferred Benefits	58,012	55,229
c.	Survivor Benefits	80,044	77,870
d.	Disability Retirement	123,545	120,319
e.	Total for Active Members	$6,044,766	$5,332,808
2.	**Inactive Members**		
a.	Retired Members	$8,131,681	$9,750,199
b.	Terminated members	855,295	1,111,214
c.	Beneficiaries	0	0
d.	Disability Retirement	136,294	134,520
e.	Total for Inactive Members	$9,123,270	$10,995,933
3.	**Accrued Liability**	$15,168,036	$16,328,741

Normal Cost

Valuation as of October 1,		2018	2019
1.	**Preliminary Normal Cost**		
a.	Retirement Benefits	$320,763	$330,979
b.	Deferred Benefits	49,363	51,523
c.	Survivor Benefits	11,187	11,444
d.	Disability Retirement	19,857	20,259
e.	Total	$401,170	$414,205
2.	**Total Normal Cost**		
a.	Preliminary Normal Cost	$401,170	$414,205
b.	Estimated Administrative Expense	62,778	63,865
c.	Total Normal Cost	$463,948	$478,070
d.	Total Normal Cost as a Percent of Pay	22.24%	21.61%
3.	**Employer Normal Cost**		
a.	Preliminary Normal Cost	$401,170	
b.	Actual Administrative Expense	63,865	
c.	Actual Employee Contributions	(187,557)	
d.	Employer Normal Cost	$277,478	
4.	**Valuation Payroll**	$2,086,482	$2,212,061

Unfunded Accrued Liability

Unfunded Accrued Liability

1.	Accrued Liability	$16,328,741
2.	Actuarial Value of Assets	(15,706,702)
3.	Unfunded Accrued Liability	$622,039

Determination of Expected Unfunded Accrued Liability

1.	Unfunded Accrued Liability as of Prior Year	$667,511
2.	Interest for a full year on (1)	52,066
3.	Employer Normal Cost (Including Administrative Expenses) Prior Yr.	277,478
4.	Interest for a full year on (3)	21,643
5.	City Plus State Contribution	(468,202)
6.	Interest on Contribution for Time on Deposit	(14,354)
7.	Change in Plan, Methods or Assumptions	(12,487)
8.	Expected Unfunded Accrued Liability	$523,655

Calculation of (Gain) or Loss

1.	Actual Unfunded Accrued Liability	$622,039
2.	Expected Unfunded Accrued Liability	523,655
3.	Total (Gain) or Loss	$98,384

Reconciliation of Unfunded Accrued Liability

1.	Unfunded Accrued Liability as of Prior Year	$667,511
2.	Total Change in Unfunded Accrued Liability	
	a. Expected Change in Unfunded Accrued Liability	$(131,369)
	b. Change in Plan, Methods or Assumptions	(12,487)
	c. Change Due to (Gain) or Loss	
	i. Portion of (Gain) / Loss Due to Investments	$60,425
	ii. Portion of (Gain) / Loss Due to Demographic Experience	37,959
	iii. Total (Gain) or Loss	$98,384
	d. Total Change in Unfunded Accrued Liability	$(45,472)
3.	Unfunded Accrued Liability	$622,039

Determination of Investment Gain (Loss)

1.	Actuarial Value of Assets - Beginning of Year	$14,500,525
2.	Expected Interest on Beginning Value	1,131,041
3.	Contributions (Employer)	238,901
4.	Contributions (State)	229,301
5.	Contributions (Employee)	187,557
6.	Benefit Payments	(457,662)
7.	Administrative Expenses	(63,865)
8.	Interest on Contributions and Disbursements	1,329
9.	Expected Value of Assets at End of Year	$15,767,127
10.	Actuarial Value of Assets - End of Year	$15,706,702
11.	Gain (Loss) for Plan Year = (10) - (9)	$(60,425)
12.	Actuarial Investment Income	$1,071,945
13.	Return on Actuarial Value of Assets	7.36 %

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)	$(52,849)	$(43,080)	16	$(4,457)
2.	2006	Actuarial Gain	(154,247)	(63,477)	(51,744)	17	(5,192)
3.	2007	Actuarial Gain	(538,306)	(222,177)	(181,109)	18	(17,678)
4.	2008	Actuarial Loss	1,693,799	690,971	563,248	19	53,626
5.	2008	Method Change	7,606	3,139	2,559	19	244
6.	2008	Method Change	(1,183,820)	(488,592)	(398,278)	19	(37,919)
7.	2009	Actuarial Loss	449,531	185,046	150,841	20	14,040
8.	2010	Actuarial Loss	46,391	19,002	15,490	21	1,413
9.	2011	Actuarial Loss	489,026	198,893	162,129	22	14,511
10.	2012	Actuarial Gain	(278,260)	(112,159)	(91,427)	23	(8,045)
11.	2012	Asmp/Method Chg	363,487	146,514	119,432	23	10,510
12.	2013	Actuarial Loss	22,767	9,080	7,402	24	641
13.	2013	Assumption Change	10,161	4,050	3,301	24	286
14.	2014	Actuarial Loss	42,565	33,462	27,277	25	2,330
15.	2014	Assumption Change	11,211	8,815	7,186	25	614
16.	2015	Actuarial Loss	217,978	168,526	137,375	21	12,527
17.	2015	Assumption Change	11,608	8,975	7,316	21	667
18.	2016	Actuarial Gain	(108,646)	(88,774)	(72,365)	22	(6,477)
19.	2016	Assumption Change	226,678	185,218	150,981	22	13,514
20.	2017	Actuarial Gain	(79,994)	(65,581)	(53,459)	23	(4,704)
21.	2017	Assumption Change	(3,883)	(3,183)	(2,595)	23	(228)
22.	2018	Actuarial Gain	(226,939)	(223,743)	(182,385)	24	(15,802)
23.	2018	Assumption Change	321,084	316,562	258,047	24	22,357
24.	2019	Actuarial Loss	98,384	98,384	98,384	25	8,404
25.	2019	Plan Change	(12,487)	(12,487)	(12,487)	25	(1,067)
Scheduled Amortization Payment							$54,115
Outstanding Bases				$743,615	$622,039		

Projected Unfunded Accrued Liability and Amortization Payments

Plan Year Beginning October 1	Total Outstanding Bases	Total Amortization Payment
2019	$622,039	$54,115
2020	612,222	54,113
2021	601,642	54,114
2022	590,235	54,113
2023	577,939	54,113
2024	564,685	54,115
2025	550,394	54,114
2026	534,990	54,112
2027	518,386	54,114
2028	500,486	54,112
2029	481,191	54,114
2030	460,389	54,112
2031	437,966	54,111
2032	413,796	54,116
2033	387,735	54,107
2034	359,651	54,110
2035	329,373	58,571
2036	291,925	63,768
2037	245,953	81,437
2038	177,349	65,488
2039	120,586	51,454
2040	74,525	36,841
2041	40,623	15,295
2042	27,303	17,765
2043	10,282	10,282
2044	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,**	**2018** **2020**	**2019** **2021**
1. **Minimum Required Contribution**		
a. Total Normal Cost	$463,948	$478,070
b. Amortization of Unfunded Accrued Liability	57,383	54,115
c. Beginning of Year Contribution	$521,331	$532,185
d. Interest	64,919	66,892
e. Minimum Required Contribution	$586,250	$599,077
2. **Contribution by Source - $ Amount**		
a. City Policy Contribution	$223,878	$214,932
b. Expected State Contribution	216,318	229,301
c. Expected Member Contributions	146,054	154,844
d. Total	$586,250	$599,077
3. **Contribution by Source - % Pay**		
a. City Policy Contribution	10.73 %	9.71 %
b. Expected State Contribution	10.37 %	10.37 %
c. Expected Member Contributions	7.00 %	7.00 %
d. Total	28.10 %	27.08 %
4. **Valuation Payroll**	$2,086,482	$2,212,061
5. **Key Assumptions**		
a. Net Assumed Rate of Return	7.80 %	7.80 %
b. Assumed Valuation Payroll Increase	0.00 %	0.00 %

Note: The $223,878 minimum funding requirement for fiscal 2020 must be deposited on December 15, 2019. The $214,932 minimum funding requirement for fiscal 2021 must be deposited on December 15, 2020. The actual premium tax distributions for the fiscal years ending September 30, 2020 and 2021 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	**$667,511**	**95.60 %**		
Changes in due to:				
Normal Operation of Plan	536,142	96.71 %	$(131,369)	1.11 %
Investment Experience	596,567	96.34 %	60,425	(0.37)%
Demographic Experience	634,526	96.12 %	37,959	(0.22)%
Plan Change	622,039	96.19 %	(12,487)	0.07 %
Total Changes			$(45,472)	0.59 %
As of Current Valuation	**$622,039**	**96.19 %**		

Reconciliation of City Minimum Funding Requirement

	Dollar Amount	% of Pay
City Required Contribution for Fiscal 2020	**$223,878**	**10.73 %**
Changes in Contribution due to:		
Normal Operation of Plan	$0	0.00 %
Change in Expenses	1,192	0.05 %
Change in State $	(12,225)	(0.58)%
Investment Experience	5,648	0.27 %
Demographic Experience	(3,881)	(0.77)%
Plan Change	320	0.01 %
Total Changes	$(8,946)	(1.02)%
City Required Contribution for Fiscal 2021	**$214,932**	**9.71 %**

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,			2018	2019
1.	Actuarial present value of accumulated benefits			
	a.	Participants currently receiving benefits	$8,267,975	$9,884,719
	b.	Other participants	5,082,277	4,564,515
	c.	Vested participants	$13,350,252	$14,449,234
	d.	Nonvested participants	692,037	713,226
	e.	Total	$14,042,289	$15,162,460
2.	Change in actuarial present value of accumulated benefits			
	a.	Actuarial present value of accumulated benefits beginning of year		$14,042,289
	b.	Increase (decrease) during year attributable to:		
	i.	Plan amendment		$(2,985)
	ii.	Change in assumptions or methods		0
	iii.	Increase for interest and probability of payment due to decrease in discount period and benefits accrued		1,580,818
	iv.	Benefits paid		(457,662)
	v.	Other		0
	vi.	Net increase (decrease)		$1,120,171
	c.	Actuarial present value of accumulated benefits end of year		$15,162,460

Other Disclosures Required by the State of Florida

Valuation as of October 1,	2018	2019
Present value of active member:		
Future salaries (attained age)	$20,945,840	$23,576,188
Future contributions (attained age)	$1,466,209	$1,650,333
Balance of contributions with interest for actives	$1,794,150	$1,547,987

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, 2016, 2017 and 2018 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	$20,506,892	$16,328,741	$13,418,976
Plan fiduciary net position	(15,591,866)	(15,591,866)	(15,591,866)
Net pension liability	$4,915,026	$736,875	$(2,172,890)
Plan fiduciary net position as a percentage of the total pension liability	76.03%	95.49%	116.19%
Years of benefit payments:			
Expected for current members:	99	99	99
Paid for with current assets:	18.06	23.49	47.17
City Plus State Contribution Requirement, Plus Expected Employee Contributions			
Dollar Amount	$1,150,632	$599,077	$397,720
Percent of Payroll	52.02%	27.08%	17.98%

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,	**2019**	**2018**	**2017**	**2016**	**2015**
Assumed rate of return	7.8%	8.0%	8.0%	8.0%	8.0%
Actual rate of return	3.3%	9.9%	12.8%	9.7%	0.1%
Percentages of assets in:					
Cash	3%	2%	2%	1%	1%
Equity	71%	77%	74%	71%	66%
Bond	17%	16%	19%	21%	31%
Alternative	9%	5%	5%	7%	2%
Total	100%	100%	100%	100%	100%

Section 4 Supplementary Information

Summary of Participant Data

Member Statistics

Valuation as of October 1,	2018	2019
Active Participants		
Number	44	43
Average Age	38.7	36.3
Average Credited Service	9.7	8.3
Percent Male	72.7	72.1
Average Valuation Salary	$48,696	$51,443
Total Valuation Salary	$2,142,606	$2,212,061
Payroll Covered in Valuation	$2,086,482	$2,212,061
Terminated with Rights to Deferred Benefits		
Number	4	6
Average Age	44.2	44.9
Percent Male	75.0	66.7
Average Monthly Benefit	$2,137	$1,844
Retirements (DROP and Service Retirees)		
Number	17	20
Average Age	59.9	60.4
Percent Male	100.0	100.0
Average Monthly Benefit	$3,251	$3,266
Total of DROP Account Balances September 30	$445,646	$732,916
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	57.1	58.1
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, 2019

Age	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	Total
< 20									
< 25	3	1							4
< 30	2	7							9
< 35	4	3	1	1					9
< 40		1	1	6					8
< 45			1	1	1				3
< 50					1		1		2
< 55			3		2	1	1	1	8
< 60									
< 65									
Total	9	12	6	8	4	1	2	1	43

Active Valuation Pay by Age and Service as of October 1, 2019

Age	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	Total
< 20									
< 25	41,100	41,973							41,318
< 30	41,100	42,943							42,534
< 35	41,100	42,449	44,978	60,865					44,177
< 40		41,973	47,729	57,013					53,972
< 45			47,729	51,324	60,271				53,108
< 50					55,437		70,036		62,736
< 55			68,786		55,565	68,522	78,940	84,872	68,728
< 60									
< 65									
Total	41,100	42,658	57,799	56,783	56,709	68,522	74,488	84,872	51,443

Reconciliation of Plan Participants

	Active	Retired	DROP	Deferred Vested	Disabled	Survivor	Total
October 1, 2018	**44**	**11**	**6**	**4**	**1**	**0**	**66**
DROP Entrant	(3)		3				0
Terminated Vested	(2)			2			0
Nonvested Termination	(5)						(5)
Additions	9						9
October 1, 2019	**43**	**11**	**9**	**6**	**1**	**0**	**70**

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 and 1771-2020.

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.

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 120th 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: 7.8% per year net of investment expenses

Inflation: 2.0% per year (revised from 2.5% per year in the prior valuation). 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 is that used for special risk employees in the valuation of FRS as of July 1, 2016, 2017 and 2018, as required by state statute. The mortality rates are as follows:

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.