FLA
FREIMAN LITTLE ACTUARIES

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City of Rockledge

General Employees Retirement Plan

Actuarial Valuation as of October 1, 2018

APPROVED BY GENERAL EMPLOYEES' RETIREMENT BOARD
FEBRUARY 22, 2019 KJR

February 4, 2019

REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS
FOR THE PLAN AND FISCAL YEAR
BEGINNING OCTOBER 1, 2019

FREIMAN LITTLE ACTUARIES

February 4, 2019

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

RE: Actuarial Valuation as of October 1, 2018

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2018 for the City of Rockledge General Employees Retirement Plan (the Plan). This report provides a review of the current funded status of the Plan, establishes the minimum funding requirement for the fiscal year ending September 30, 2020, 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."

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 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

Minimum Funding Requirements

Fiscal Year Ending September 30,	**2019**	**2020**
Minimum Funding Requirement		
As a Dollar Amount	$756,292	$720,642
As a Percent of Valuation Payroll	18.30%	15.55%

Note: The $756,292 minimum funding requirement for fiscal 2019 must be deposited on December 15, 2018. The $720,642 minimum funding requirement for fiscal 2020 must be deposited on December 15, 2019.

Funded Status

Valuation as of October 1,	**2017**	**2018**
Accrued Liability (AL)	$18,322,630	$19,133,405
Actuarial Value of Assets	(15,101,483)	(16,384,954)
Unfunded Accrued Liability (UAL)	$3,221,147	$2,748,451
Funded Percentage	82.42%	85.64%

Key Assumptions

Valuation as of October 1,	**2017**	**2018**
Assumed Investment Return, Net of Expenses	7.90%	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. Any significant events associated with these items are discussed in the following.

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

Participant Data

During the year active membership increased from 136 to 137 members due to 21 new hires, 14 non-vested terminations, 2 vested terminations, 3 retirements, and 1 DROP entrant.

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

Year Ended September	Individual Actual	Individual Expected	Total Payroll Increase
2018	6.6%	6.0%	0.0%
2017	5.1%	6.0%	7.0%
2016	5.4%	6.0%	5.7%
2015	4.2%	6.0%	0.8%
2014	3.6%	6.0%	1.8%
2013	5.0%	6.0%	(3.9%)
2012	(4.9%)	6.0%	(1.2%)
2011	3.4%	6.0%	(5.2%)
2010	0.6%	6.0%	(2.8%)
2009	3.4%	6.0%	5.7%
Average:	3.2%	6.0%	0.7%

Pay increases were more than expected with the actual average pay increase amongst continuing actives at 6.6% in comparison to the 6.0% salary increase assumption. In addition, total payroll increased 0.7% 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. For this October 1, 2018 actuarial valuation, we recommend level dollar amortization of the Unfunded Accrued Liability in comparison to the amortization as a level percent of pay based on a 0.9% payroll growth assumption used in the prior valuation.

Overall, there was a demographic gain primarily due to retirement and termination experience offset by pay increases more 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 9.84% and the return on the Actuarial Value of Assets was 8.39%, each in comparison to the 7.9% net investment return assumed for the fiscal year ending September 30, 2018. Because the return on the Actuarial Value of Assets was more than the net assumed investment return, there was an actuarial investment gain for the year ending September 30, 2018.

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**
2018	9.84 %	8.39 %	7.90 %
2017	12.21 %	7.74 %	7.90 %
2016	9.31 %	7.34 %	8.00 %
2015	(0.03)%	5.94 %	8.00 %
2014	9.69 %	7.45 %	8.00 %
2013	8.79 %	6.11 %	8.00 %
2012	12.07 %	1.82 %	8.00 %
2011	(2.70)%	1.37 %	8.00 %
2010	8.64 %	2.86 %	8.00 %
2009	2.84 %	2.53 %	8.00 %
Average	6.95 %	5.12 %	7.98 %

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

Plan Provisions

There were no changes in Plan provisions since the prior valuation of the Plan.

Methods

There have been no changes in Methods since the prior valuation of the Plan.

Assumptions

Florida Statutes 112.64(5)(a) requires that the payroll growth assumption not exceed the average payroll growth for the prior ten years. For this October 1, 2018 actuarial valuation, we recommend level dollar amortization of the Unfunded Accrued Liability in comparison to the amortization as a level percent of pay based on a 0.9% payroll growth assumption used in the prior valuation.

The net assumed rate of investment return was revised from 7.9% used in the October 1, 2017 actuarial valuation to 7.8% for this October 1, 2018 actuarial valuation of the Plan 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 further.

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, 2017**		**October 1, 2018**	
Stocks	$11,366,661	74%	$12,929,750	76%
Fixed Income Securities	2,927,179	19%	2,965,078	18%
Cash and Cash Equivalents	250,251	2%	118,875	1%
Real Estate	747,843	5%	799,495	5%
Net Receivables	12,607	0%	14,502	0%
Fair Market Value of Assets	$15,304,541	100%	$16,827,700	100%

Reconciliation of Market Value of Assets

Year Ending September 30,			**2017**	**2018**
1.	**Market Value of Assets at Beginning of Year**		$14,412,104	$15,304,541
2.	Contributions			
	a.	Employer	$680,623	$751,853
	b.	Plan Members	275,299	285,978
	c.	Total Contributions	$955,922	$1,037,831
3.	Investment Income			
	a.	Realized Appreciation (Depreciation)	$(22,460)	$(19,161)
	b.	Unrealized Appreciation (Depreciation)	1,464,305	1,159,018
	c.	Interest plus Dividends	329,108	408,490
	d.	Investment Expense	(60,522)	(40,986)
	e.	Net Investment Income	$1,710,431	$1,507,361
4.	Deductions			
	a.	Benefits	$(663,548)	$(769,600)
	b.	Refund of Contributions	(33,846)	(109,150)
	c.	DROP Balance Disbursement	(1,030,236)	(83,188)
	d.	Administrative Expense	(46,286)	(60,095)
	e.	Total Deductions	$(1,773,916)	$(1,022,033)
5.	Net Increase		$892,437	$1,523,159
6.	**Market Value of Assets at End of Year**		$15,304,541	$16,827,700
7.	**Return on Market Value of Assets = 2I / (A + B – I)**		12.21 %	9.84 %

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, 2018 — $16,827,700

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

	Year Ending	Original Gain (Loss)	Percent Unrecognized	Unrecognized Gain (Loss)
a.	September 30, 2018	$280,156	80%	$224,125
b.	September 30, 2017	597,654	60%	358,592
c.	September 30, 2016	172,813	40%	69,125
d.	September 30, 2015	(1,045,482)	20%	(209,096)
e.	Total			$442,746

3.	Preliminary Actuarial Value of Assets	$16,384,954
4.	Corridor Around Market Value	
a.	Minimum = 80% of Market Value of Assets	$13,462,160
b.	Maximum = 120% of Market Value of Assets	$20,193,240
c.	Corridor Adjustment to Preliminary Actuarial Value	$0
5.	Actuarial Value of Assets as of October 1, 2018	$16,384,954

Development of Historical Gain or Loss on Market Value of Assets

Fiscal Year End		2018	2017
1.	Market Value of Assets - Beginning of Year	$15,304,541	$14,412,104
2.	Expected Interest on Assets	1,209,059	1,138,556
3.	Contributions	1,037,831	955,922
4.	Benefit Payments + Administrative Expenses	(1,022,033)	(1,773,916)
5.	Interest on items (3) and (4)	18,146	(25,779)
6.	Expected Value of Assets at End of Year	$16,547,544	$14,706,887
7.	Market Value of Assets - End of Year	$16,827,700	$15,304,541
8.	Gain (Loss) for Plan Year = (7) - (6)	$280,156	$597,654

Fiscal Year End		2016	2015
1.	Market Value of Assets - Beginning of Year	$13,177,393	$12,863,211
2.	Expected Interest on Assets	1,054,191	1,029,057
3.	Contributions	816,496	812,038
4.	Benefit Payments + Administrative Expenses	(809,085)	(494,147)
5.	Interest on items (3) and (4)	296	12,716
6.	Expected Value of Assets at End of Year	$14,239,291	$14,222,875
7.	Market Value of Assets - End of Year	$14,412,104	$13,177,393
8.	Gain (Loss) for Plan Year = (7) - (6)	$172,813	$(1,045,482)

Historical Asset Values

Year Ending September 30,	Actuarial Value of Assets	Fair Market Value of Assets	% Market Return	% Actuarial Return	% Assumed Return
2018	$16,384,954	$16,827,700	9.84 %	8.39 %	7.90 %
2017	15,101,483	15,304,541	12.21 %	7.74 %	7.90 %
2016	14,805,468	14,412,104	9.31 %	7.34 %	8.00 %
2015	13,786,010	13,177,393	(0.03)%	5.94 %	8.00 %
2014	12,703,666	12,863,211	9.69 %	7.45 %	8.00 %
2013	11,657,004	11,561,929	8.79 %	6.11 %	8.00 %
2012	10,892,465	10,534,827	12.07 %	1.82 %	8.00 %
2011	10,500,528	9,211,284	(2.70)%	1.37 %	8.00 %
2010	10,151,142	9,255,489	8.64 %	2.86 %	8.00 %
2009	9,602,509	8,259,764	2.84 %	2.53 %	8.00 %

Historical Contribution Amounts

Year Ending September 30,	Employer	Members	Total
2018	$751,853	$285,978	$1,037,831
2017	680,623	275,299	955,922
2016	561,465	255,031	816,496
2015	562,320	249,718	812,038
2014	443,171	244,731	687,902
2013	346,097	246,507	592,604
2012	337,661	259,737	597,398
2011	319,511	273,867	593,378
2010	322,259	276,215	598,474
2009	325,648	278,996	604,644

Historical Deductions from Fund

Year Ending September 30,	Benefits	Refunds	Administrative Expense	Total
2018	$852,788	$109,150	$60,095	$1,022,033
2017	1,693,784	33,846	46,286	1,773,916
2016	689,192	64,718	55,175	809,085
2015	352,136	77,550	64,461	494,147
2014	358,103	80,160	77,399	515,662
2013	370,923	59,986	65,218	496,127
2012	279,100	90,633	28,290	398,023
2011	256,780	74,856	53,144	384,780
2010	261,109	24,753	42,478	328,340
2009	267,531	59,106	37,771	364,408

Present Value of Benefits

Valuation as of October 1,			2017	2018
1.	**Active Members**			
	a.	Retirement Benefits	$12,021,515	$12,579,847
	b.	Deferred Benefits	876,600	943,527
	c.	Survivor Benefits	525,757	539,840
	d.	Disability Retirement	534,962	548,203
	e.	Total for Active Members	$13,958,834	$14,611,417
2.	**Inactive Members**			
	a.	Retired Members	$8,034,605	$8,400,708
	b.	Terminated members	128,710	83,542
	c.	Beneficiaries	447,133	623,944
	d.	Disability Retirement	156,985	99,984
	e.	Total for Inactive Members	$8,767,433	$9,208,178
3.	**Present Value of Benefits**		$22,726,267	$23,819,595

Accrued Liability

Valuation as of October 1,			2017	2018
1.	**Active Members**			
	a.	Retirement Benefits	$8,916,706	$9,267,368
	b.	Deferred Benefits	106,459	125,259
	c.	Survivor Benefits	281,724	281,087
	d.	Disability Retirement	250,308	251,513
	e.	Total for Active Members	$9,555,197	$9,925,227
2.	**Inactive Members**			
	a.	Retired Members	$8,034,605	$8,400,708
	b.	Terminated members	128,710	83,542
	c.	Beneficiaries	447,133	623,944
	d.	Disability Retirement	156,985	99,984
	e.	Total for Inactive Members	$8,767,433	$9,208,178
3.	**Accrued Liability**		$18,322,630	$19,133,405

Normal Cost

Valuation as of October 1,			2017	2018
1.	**Preliminary Normal Cost**			
	a.	Retirement Benefits	$434,409	$433,647
	b.	Deferred Benefits	97,174	98,806
	c.	Survivor Benefits	34,867	35,164
	d.	Disability Retirement	39,425	38,315
	e.	Total	$605,875	$605,932
2.	**Total Normal Cost**			
	a.	Preliminary Normal Cost	$605,875	$605,932
	b.	Estimated Administrative Expense	46,286	60,095
	c.	Total Normal Cost	$652,161	$666,027
	d.	Total Normal Cost as a Percent of Pay	14.07%	14.37%
3.	**Employer Normal Cost**			
	a.	Preliminary Normal Cost	$605,875	
	b.	Actual Administrative Expense	60,095	
	c.	Actual Employee Contributions	(285,978)	
	d.	Employer Normal Cost	$379,992	
4.	**Valuation Payroll**		$4,635,422	$4,633,879

Unfunded Accrued Liability

Derivation of Unfunded Accrued Liability (UAL)

Unfunded Accrued Liability

1.	Accrued Liability	$19,133,405
2.	Actuarial Value of Assets	(16,384,954)
3.	Unfunded Accrued Liability	$2,748,451

Determination of Expected Unfunded Accrued Liability

1.	Unfunded Accrued Liability as of Prior Year	$3,221,147
2.	Interest for a full year on (1)	254,471
3.	Employer Normal Cost (Including Administrative Expenses) as of Prior Yr.	379,992
4.	Interest for a full year on (3)	30,019
5.	City Plus State Contribution	(751,853)
6.	Interest on Contribution for Time on Deposit	(47,220)
7.	Change in Plan, Methods or Assumptions	206,529
8.	Expected Unfunded Accrued Liability	$3,293,085

Calculation of (Gain) or Loss

1.	Actual Unfunded Accrued Liability	$2,748,451
2.	Expected Unfunded Accrued Liability	3,293,085
3.	Total (Gain) or Loss	$(544,634)

Reconciliation of Unfunded Accrued Liability

1.	Unfunded Accrued Liability as of Prior Year	$3,221,147
2.	Total Change in Unfunded Accrued Liability	
	a. Expected Change in Unfunded Accrued Liability	$(134,591)
	b. Change in Plan, Methods or Assumptions	206,529
	c. Change Due to (Gain) or Loss	
	i. Portion of (Gain) / Loss Due to Investments	$(56,510)
	ii. Portion of (Gain) / Loss Due to Demographic Experience	(488,124)
	iii. Total (Gain) or Loss	$(544,634)
	d. Total Change in Unfunded Accrued Liability	$(472,696)
3.	Unfunded Accrued Liability	$2,748,451

Amortization of Unfunded Liability

The Unfunded Actuarial Accrued Liability is being amortized as a level dollar amount based on the interest 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

	Effective 10/1	Source	Original Balance	Remaining Balance	Adjusted Remaining Balance	Years Remain	Level $ Amortization
1.	2005	Method Change	$(387,558)	$(382,295)	$(369,265)	17	$(37,054)
2.	2006	Actuarial Loss	106,045	104,927	101,351	18	9,893
3.	2007	Actuarial Loss	131,907	130,541	126,092	19	12,005
4.	2008	Actuarial Loss	1,566,340	1,546,320	1,493,618	20	139,027
5.	2008	Method Change	5,097	5,030	4,859	20	452
6.	2008	Method Change	(1,333,766)	(1,316,716)	(1,271,840)	20	(118,384)
7.	2009	Actuarial Loss	317,686	312,123	301,485	21	27,493
8.	2010	Actuarial Loss	30,104	29,374	28,373	22	2,540
9.	2010	Plan Change	394,556	384,981	371,860	22	33,283
10.	2011	Actuarial Loss	548,021	530,022	511,958	23	45,050
11.	2012	Actuarial Gain	(66,804)	(63,931)	(61,752)	24	(5,350)
12.	2012	Asmp/Method Chg	810,340	775,496	749,065	24	64,900
13.	2013	Actuarial Loss	327,128	311,927	301,296	25	25,737
14.	2013	Assumption Chg	21,426	20,429	19,733	25	1,686
15.	2014	Actuarial Loss	40,289	38,471	37,160	26	3,133
16.	2014	Assumption Chg	22,355	21,346	20,618	26	1,738
17.	2015	Actuarial Loss	132,333	126,032	121,737	22	10,896
18.	2015	Assumption Chg	23,782	22,648	21,876	22	1,958
19.	2016	Actuarial Gain	(120,869)	(117,424)	(113,422)	23	(9,981)
20.	2016	Assumption Chg	840,843	816,873	789,032	23	69,432
21.	2017	Actuarial Gain	(133,464)	(132,517)	(128,001)	24	(11,090)
22.	2017	Assumption Chg	32,034	31,807	30,723	24	2,662
23.	2018	Actuarial Gain	(544,634)	(544,634)	(544,634)	25	(46,523)
24.	2018	Assumption Chg	206,529	206,529	206,529	25	17,642
Scheduled Amortization Payment							$241,145
Outstanding Bases				$2,857,359	$2,748,451		

Projected Unfunded Accrued Liability and Amortization Payments

Plan Year Beginning October 1	Total Outstanding Bases	Total Amortization Payment
2018	$2,748,451	$241,145
2019	2,702,876	241,145
2020	2,653,746	241,145
2021	2,600,784	241,144
2022	2,543,692	241,147
2023	2,482,143	241,143
2024	2,415,798	241,150
2025	2,344,271	241,142
2026	2,267,173	241,148
2027	2,184,055	241,143
2028	2,094,459	241,150
2029	1,997,867	241,142
2030	1,893,749	241,150
2031	1,781,502	241,140
2032	1,660,510	241,151
2033	1,530,069	241,140
2034	1,389,466	241,150
2035	1,237,885	278,194
2036	1,034,546	268,310
2037	826,003	256,297
2038	614,143	235,203
2039	408,497	207,713
2040	216,446	159,033
2041	61,891	54,533
2042	7,931	3,412
2043	4,871	4,871

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 26 years.

Minimum Funding Requirements

Determination of Required Contribution

Valuation as of October 1, Funding for Year Ending September 30,		2017 2019	2018 2020
1.	**Minimum Required Contribution**		
a.	Total Normal Cost	$652,161	$666,027
b.	Amortization of Unfunded Accrued Liability	259,643	241,145
c.	Beginning of Year Contribution	$911,804	$907,172
d.	Interest	92,463	91,503
e.	Minimum Required Contribution	$1,004,267	$998,675
f.	Percent of Pay	24.30 %	21.55 %
2.	**Expected Member Contributions**		
a.	Expected Member Contributions	$247,975	$278,033
b.	Percent of Pay	6.00 %	6.00 %
3.	**City Policy Contribution**		
a.	City Policy Contribution	$756,292	$720,642
b.	Percent of Valuation Payroll	18.30 %	15.55 %
4.	**Valuation Payroll**	$4,132,914	$4,633,879

Note: The $756,292 minimum funding requirement for fiscal 2019 must be deposited on December 15, 2018. The $720,642 minimum funding requirement for fiscal 2020 must be deposited on December 15, 2019.

Reconciliations

Reconciliation of Funded Status

	Unfunded Accrued Liability	Funded Percentage	Change in Unfunded Accrued Liability	Change in Funded Percentage
As of Prior Valuation	**$3,221,147**	**82.42 %**		
Changes in due to:				
Normal Operation of Plan	3,086,556	84.10 %	$(134,591)	1.68 %
Investment Experience	3,030,046	84.39 %	(56,510)	0.29 %
Demographic Experience	2,541,922	86.57 %	(488,124)	2.18 %
Net Assumed Return 7.8%	2,748,451	85.64 %	206,529	(0.93)%
Total Changes			$(472,696)	3.22 %
As of Current Valuation	**$2,748,451**	**85.64 %**		

Reconciliation of City Minimum Funding Requirement

	Dollar Amount	% of Pay
City Required Contribution for Fiscal 2019	**$756,292**	**18.30 %**
Changes in Contribution due to:		
Normal Operation of Plan	$6,800	0.00 %
Change in Expenses	15,127	0.36 %
Investment Experience	(4,939)	(0.12)%
Demographic Experience	(98,413)	(3.98)%
Net Assumed Return 7.8%	27,407	0.60 %
Level $ Amortization	18,368	0.39 %
Total Changes	$(35,650)	(2.75)%
City Required Contribution for Fiscal 2020	**$720,642**	**15.55 %**

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,			**2017**	**2018**
1.	Actuarial present value of accumulated benefits			
	a.	Participants currently receiving benefits	$8,638,723	$9,124,636
	b.	Other participants	5,977,211	6,400,461
	c.	Vested participants	$14,615,934	$15,525,097
	d.	Nonvested participants	1,328,424	1,322,488
	e.	Total	$15,944,358	$16,847,585
2.	Change in actuarial present value of accumulated benefits			
	a.	Actuarial present value of accumulated benefits beginning of year		$15,944,358
	b.	Increase (decrease) during year attributable to:		
		i. Plan amendment		$0
		ii. Change in assumptions or methods		176,166
		iii. Increase for interest and probability of payment due to decrease in discount period and benefits accrued		1,688,999
		iv. Benefits paid		(961,938)
		v. Other		0
		vi. Net increase (decrease)		$903,227
	c.	Actuarial present value of accumulated benefits end of year		$16,847,585

Other Disclosures Required by the State of Florida

Valuation as of October 1,	**2017**	**2018**
Present value of active member:		
Future salaries (attained age)	$35,614,605	$37,470,583
Future contributions (attained age)	$2,136,876	$2,248,235
Balance of contributions with interest for actives	$3,077,629	$3,146,602

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 NOT 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 (5.8%)	Current Discount Rate (7.8%)	2% Increase (9.8%)
Total pension liability	$24,129,670	$19,133,405	$15,603,691
Plan fiduciary net position	(16,827,700)	(16,827,700)	(16,827,700)
Net pension liability	$7,301,970	$2,305,705	$(1,224,009)
Plan fiduciary net position as a percentage of the total pension liability	69.74%	87.95%	107.84%
Years of benefit payments:			
Expected for current members:	98	98	98
Paid for with current assets:	15.40	19.03	28.17
City Plus State Contribution Requirement, Plus Expected Employee Contributions			
Dollar Amount	$1,654,577	$998,675	$548,356
Percent of Payroll	35.71%	21.55%	11.83%

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,	**2018**	**2017**	**2016**	**2015**	**2014**
Assumed rate of return	7.9%	7.9%	8.0%	8.0%	8.0%
Actual rate of return	9.8%	12.2%	9.3%	0.0%	9.7%
Percentages of assets in:					
Cash	1%	2%	1%	2%	2%
Equity	76%	74%	74%	68%	69%
Bond	18%	19%	19%	28%	28%
Alternative	5%	5%	6%	2%	1%
Total	100%	100%	100%	100%	100%

Section 4 Supplementary Information

Summary of Participant Data

Valuation as of October 1,	2017	2018
Active Participants		
Number	136	137
Average Age	45.9	46.0
Average Credited Service	8.8	8.5
Percent Male	73.5	69.3
Average Valuation Salary	$34,873	$36,716
Total Valuation Salary	$4,742,715	$5,030,149
Payroll Covered in Valuation	$4,635,422	$4,633,879
Terminated with Rights to Deferred Benefits		
Number	4	5
Average Age	47.8	40.6
Percent Male	50.0	40.0
Average Monthly Benefit	$778	$809
Retirements (DROP and Service Retirees)		
Number	40	43
Average Age	68.2	67.9
Percent Male	75.0	74.4
Average Monthly Benefit	$1,581	$1,531
Total of DROP Account Balances September 30	$285,139	$302,029
Beneficiaries		
Number	6	7
Average Age	70.2	69.5
Percent Male	16.7	14.3
Average Monthly Benefit	$633	$734
Disability Retirements		
Number	4	3
Average Age	67.5	67.4
Percent Male	75.0	100.0
Average Monthly Benefit	$458	$383

Number of Active Members by Age and Service as of October 1, 2018

	Service									
Age	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	< 40	Total
< 20										
< 25	4	6								10
< 30	3	7	3							13
< 35	1	6	2	3						12
< 40	2	8	2							12
< 45	1	5	2	1	2					11
< 50	1	4	1	5	2	1				14
< 55	3	3	3	2	5	2	2			20
< 60	3	5	3	3	3	3	1	2	2	25
< 65	3	2	6	3	5					19
65+			1							1
Total	21	46	23	17	17	6	3	2	2	137

Active Valuation Pay by Age and Service as of October 1, 2018

	Service									
Age	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	<40	Total
< 20										
< 25	28,365	25,860								26,862
< 30	27,368	28,322	41,225							31,079
< 35	27,643	28,912	29,960	30,777						29,447
< 40	28,676	29,497	41,196							31,310
< 45	32,672	46,676	43,348	37,877	39,425					42,680
< 50	46,350	27,581	30,722	39,263	52,484	38,105				37,627
< 55	26,964	36,707	46,638	33,998	38,367	44,314	55,347			39,504
< 60	33,130	32,056	31,692	37,681	34,457	52,342	44,429	48,516	80,412	41,219
< 65	39,654	28,486	32,772	33,564	52,702					38,777
65+			74,830							74,830
Total	31,373	31,173	38,689	35,780	43,678	47,293	51,707	48,516	80,412	36,716

Reconciliation of Plan Participants

	Active	Retired	DROP	Deferred Vested	Disabled	Survivor	Total
October 1, 2017	**136**	**36**	**4**	**4**	**4**	**6**	**190**
Retired	(3)	5	(1)	(1)			0
DROP Entrant	(1)		1				0
Terminated Vested	(2)			2			0
Nonvested Termination	(14)						(14)
Death		(2)			(1)	1	(2)
Additions	21	0	0	0	0	0	21
October 1, 2018	**137**	**39**	**4**	**5**	**3**	**7**	**195**

Outline of Plan Provisions

Plan Type: Single-employer Defined Benefit Pension Plan

Legal Authority: The Plan was established and is amended by local ordinance.

Effective Date: November 1, 1969. Amended and restated effective October 1, 1999 and subsequently amended by Ordinance No. 1243-2001, 1336-2004, 1366-2005, 1492-2008, 1520-2009, 1567-2010, 1569-2010, 1641-2013, 1644-2014, 1662-2014, 1672-2015, 1687-2016, and 1711-2017.

Plan Administrator: The Board of Trustees

Board Composition: Two members are elected from among the general 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 General or Waste Water employees (excluding the Mayor, City Council, City Attorney and assistants) participate in the Plan immediately upon hire. A one-time option is provided for a person initially hired as a City Manager to irrevocably opt out of the Plan. The option must be exercised before the commencement date of employment with the City.

Credited Service: Employee service computed in years and completed calendar months.

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 and excluding overtime, commissions, bonuses, expense allowances and payment for accrued annual leave, accrued sick leave, and accrued compensatory leave.

Employee Contributions: 6.0% of Basic Compensation credited with 5% interest compounded annually. 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 at 5% to the first day of the month in which termination occurs.

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 65 and 10 years of Credited Service.

Accrued Benefit: The amount of monthly retirement income payable at the Normal Retirement Date is determined according to the following formula:

2.75% x Average Monthly Compensation x Credited Service up to 30 years

The Accrued Benefit is payable in the form of a life only 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 with spousal consent.

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 attainment of age 55 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 5/9% for the first 60 months and 5/18% thereafter. However, the minimum monthly retirement income for a Member who retires before the Normal Retirement Date with 25 years Credited Service is 60% 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.

(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.

(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.

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 life only form of annuity, also available under the terms of the Plan are the 10 year certain and continuous 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. Ordinance 1641-2013 was adopted December 18, 2013. Members may no longer be paid their retirement income in a lump sum under Section 3.1, Option 3.

Deferred Retirement Option Program (DROP): Members are eligible to enter the DROP at age 55 with 25 years of service. 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 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.

Description of Assumptions and Methods

Assumed Rate of Investment Return: 7.8% per year, net of investment expenses (revised from 7.9% in the prior valuation)

Inflation: 2.5% per year

Salary Increase – Individual: 6.0% per year

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

For the current valuation, unfunded accrued liability is amortized as a level dollar amount. In the prior year the payroll growth assumption used to amortize unfunded accrued liability as a level percent of payroll was 0.9%.

Mortality: The mortality table is that used for NOT 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: 50% RP-00 Combined Healthy White Collar +
50% 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: 50% RP-00 Annuitant White Collar +
50% 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: 100% RP-00 Disabled Retiree Set Back 4 Years

Females: 100% RP-00 Disabled Retiree Set Forward 2 Years

No mortality improvement is assumed for disabled lives.

Retirement: Members are assumed to retire at a rate of 100% at either 65 and 10 years of service or 55 and 25 years of service, whichever decrement produces the higher liability.

Termination: Sex distinct rates as used for regular 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:

Male Age by Service Values:

Age	0	1	2	3	4	5	6	7	8	9	>=10
20	32.8%	31.8%	25.2%	18.4%	15.8%	13.3%	12.4%	11.7%	11.0%	10.5%	10.9%
25	27.2%	23.2%	19.1%	14.6%	12.7%	11.0%	9.4%	8.8%	7.7%	6.6%	6.9%
30	25.8%	19.2%	15.5%	13.2%	11.8%	10.0%	8.6%	7.5%	6.4%	5.8%	5.2%
35	25.8%	17.9%	14.2%	12.6%	10.9%	9.7%	8.3%	7.2%	6.2%	5.6%	4.7%
40	24.4%	15.8%	12.0%	10.7%	9.0%	8.4%	7.5%	6.6%	5.8%	5.5%	3.3%
45	24.4%	15.7%	11.6%	10.3%	8.8%	7.7%	7.2%	6.3%	5.7%	5.4%	3.0%
50	23.4%	15.2%	10.7%	9.4%	7.9%	6.9%	6.1%	5.6%	5.1%	4.8%	3.3%
55	27.4%	18.4%	14.1%	12.4%	9.9%	8.9%	6.4%	5.5%	4.9%	5.0%	5.0%
60	27.4%	18.4%	14.1%	12.3%	9.7%	8.8%	6.3%	5.4%	4.8%	4.9%	5.9%
65+	27.4%	18.4%	14.1%	12.3%	9.7%	8.8%	6.3%	5.4%	4.8%	4.9%	4.1%

Female Age by Service Values:

Age	0	1	2	3	4	5	6	7	8	9	>=10
20	31.9%	28.6%	23.3%	18.3%	15.4%	15.3%	12.4%	11.9%	11.6%	11.3%	11.6%
25	28.0%	22.0%	18.0%	14.7%	12.9%	12.2%	10.5%	9.7%	8.6%	7.9%	5.3%
30	26.7%	18.8%	15.3%	13.2%	11.3%	10.7%	9.5%	8.5%	7.9%	7.2%	5.4%
35	26.7%	17.7%	14.2%	12.6%	10.9%	10.2%	9.2%	8.2%	7.5%	6.9%	4.6%
40	25.7%	15.5%	12.1%	10.6%	9.1%	8.0%	7.2%	6.6%	6.0%	5.5%	3.3%
45	25.7%	15.4%	11.9%	10.3%	8.8%	7.7%	7.0%	6.4%	5.8%	5.3%	3.0%
50	24.4%	14.8%	11.5%	9.2%	8.4%	7.0%	6.5%	5.8%	5.5%	5.1%	3.2%
55	27.8%	17.6%	13.7%	11.3%	9.7%	8.3%	7.0%	6.3%	6.0%	5.6%	5.4%
60	27.8%	17.6%	13.7%	11.2%	9.6%	8.2%	6.9%	6.2%	5.9%	5.4%	7.2%
65+	27.8%	17.6%	13.7%	11.2%	9.6%	8.2%	6.9%	6.2%	5.9%	5.4%	4.1%

Disability: Sex distinct rates as used for regular 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	0.004%	0.001%	20	0.000%	0.000%
25	0.006%	0.002%	25	0.030%	0.010%
30	0.010%	0.007%	30	0.058%	0.026%
35	0.018%	0.010%	35	0.073%	0.049%
40	0.029%	0.016%	40	0.102%	0.075%
45	0.044%	0.022%	45	0.188%	0.165%
50	0.069%	0.035%	50	0.313%	0.285%
55	0.095%	0.049%	55	0.523%	0.478%
60	0.099%	0.044%	60	0.687%	0.599%
65+	0.004%	0.001%	65+	0.239%	0.150%

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

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): The value of the portion of the total benefit for active members which accrues in the year following the valuation date. Under the Entry Age Normal (Level Percent of Salary) funding method, the NC is a constant fraction of salary from the member's date of entry into the Plan to the member's assumed date of termination, retirement, disability or death.

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 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.