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City of Rockledge

General Employees Retirement Plan

Actuarial Valuation as of October 1, 2017



January 25, 2018

REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS
FOR THE PLAN AND FISCAL YEAR
BEGINNING OCTOBER 1, 2018



January 25, 2018

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

RE: Actuarial Valuation as of October 1, 2017

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2017 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, 2019, 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,

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

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

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

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,	2018	2019
<u>Minimum Funding Requirement</u>		
As a Dollar Amount	\$751,853	\$756,292
As a Percent of Valuation Payroll	18.44%	18.30%

Note: The \$751,853 minimum funding requirement for fiscal 2018 must be deposited on December 15, 2017. The \$756,292 minimum funding requirement for fiscal 2019 must be deposited on December 15, 2018.

Funded Status

Valuation as of October 1,	2016	2017
Accrued Liability (AL)	\$18,194,812	\$18,322,630
Actuarial Value of Assets	<u>(14,805,468)</u>	<u>(15,101,483)</u>
Unfunded Accrued Liability (UAL)	\$3,389,344	\$3,221,147
Funded Percentage	81.37%	82.42%

Key Assumptions

Valuation as of October 1,	2016	2017
Assumed Investment Return, Net of Expenses	7.90%	7.90%
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 134 to 136 members due to 20 new hires, 13 non-vested terminations (including one member who is now actively employed and a member of the Police Plan), 1 vested termination, 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		Total Payroll Increase
	Actual	Expected	
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%
2008	2.2%	6.0%	2.3%
Average:	2.8%	6.0%	0.9%

Pay increases were less than expected with the actual average pay increase amongst continuing actives at 5.1% in comparison to the 6.0% salary increase assumption. In addition, total payroll increased 0.9% on average over the last 10 years.

Overall, there was a small demographic gain. 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 12.21% and the return on the Actuarial Value of Assets was 7.74%, each in comparison to the 7.9% net investment return assumed for the fiscal year ending September 30, 2017. Because the return on the Actuarial Value of Assets was less than the

assumed net investment return, there was an actuarial investment loss for the year ending September 30, 2017.

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
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 %
2008	(12.30)%	(12.30)%	8.00 %
Average	4.57 %	2.92 %	7.99 %

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

Plan Provisions

Ordinance No. 1711-2017 was adopted effective September 6, 2017 creating a one-time option 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. While allowing participation in the Plan to be optional for all members could be detrimental to the Plan over the long term, creating the option for one position at the City should have minimal impact. Pursuant to the employment contract, we understand the current City Manager opted not to participate in the Plan before the commencement date of employment and no contributions have been made to the Plan on her behalf. The current City Manager was not included in the liabilities of the Plan as of October 1, 2016. As such, there is no material impact on the funding of the Plan at this time per our statement of no impact dated August 7, 2017.

Methods

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

Assumptions

In the prior valuation, the mortality table was that used for NOT special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2015, as required by state statute. The mortality table has been revised to that used for NOT special risk employees in the valuation of FRS as of July 1, 2016

and 2017, as required by state statute. While healthy post-retirement mortality and disabled mortality rates were unchanged, healthy pre-retirement was revised.

As directed by the Board, we have continued to use an assumed investment return of 7.90% net of investment expenses. We recommend additional discussions regarding 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, 2016		October 1, 2017	
Stocks	\$10,526,511	74%	\$11,366,661	74%
Fixed Income Securities	2,794,523	19%	2,927,179	19%
Cash and Cash Equivalents	203,226	1%	250,251	2%
Real Estate	730,900	5%	747,843	5%
Net Receivables	<u>156,944</u>	<u>1%</u>	<u>12,607</u>	<u>0%</u>
Fair Market Value of Assets	\$14,412,104	100%	\$15,304,541	100%

Reconciliation of Market Value of Assets

Year Ending September 30,	2016	2017
1. Market Value of Assets at Beginning of Year	\$13,177,393	\$14,412,104
2. Contributions		
a. Employer	\$561,465	\$680,623
b. Plan Members	<u>255,031</u>	<u>275,299</u>
c. Total Contributions	\$816,496	\$955,922
3. Investment Income		
a. Realized Appreciation (Depreciation)	\$67,237	\$(22,460)
b. Unrealized Appreciation (Depreciation)	898,415	1,464,305
c. Interest plus Dividends	314,710	329,108
d. Investment Expense	<u>(53,062)</u>	<u>(60,522)</u>
e. Net Investment Income	\$1,227,300	\$1,710,431
4. Deductions		
a. Benefits	\$(471,663)	\$(663,548)
b. Refund of Contributions	(64,718)	(33,846)
c. DROP Balance Disbursement	(217,529)	(1,030,236)
d. Administrative Expense	<u>(55,175)</u>	<u>(46,286)</u>
e. Total Deductions	\$(809,085)	\$(1,773,916)
5. Net Increase	<u>\$1,234,711</u>	<u>\$892,437</u>
6. Market Value of Assets at End of Year	\$14,412,104	\$15,304,541
7. Return on Market Value of Assets = 2I / (A + B - I)	9.31 %	12.21 %

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, 2017			\$15,304,541
2.	Phase-In Gains (Losses) Over Five Year Period			
	<u>Year Ending</u>	<u>Original Gain (Loss)</u>	<u>Percent Unrecognized</u>	<u>Unrecognized Gain (Loss)</u>
a.	September 30, 2017	\$597,654	80%	\$478,123
b.	September 30, 2016	172,813	60%	103,688
c.	September 30, 2015	(1,045,482)	40%	(418,193)
d.	September 30, 2014	197,198	20%	<u>39,440</u>
e.	Total			\$203,058
3.	Preliminary Actuarial Value of Assets			\$15,101,483
4.	Corridor Around Market Value			
a.	Minimum = 80% of Market Value of Assets			\$12,243,633
b.	Maximum = 120% of Market Value of Assets			\$18,365,449
c.	Corridor Adjustment to Preliminary Actuarial Value			\$0
5.	Actuarial Value of Assets as of October 1, 2017			\$15,101,483

Development of Historical Gain or Loss on Market Value of Assets

Fiscal Year End	2017	2016
1. Market Value of Assets - Beginning of Year	\$14,412,104	\$13,177,393
2. Expected Interest on Assets	1,138,556	1,054,191
3. Contributions	955,922	816,496
4. Benefit Payments + Administrative Expenses	(1,773,916)	(809,085)
5. Interest on items (3) and (4)	<u>(25,779)</u>	<u>296</u>
6. Expected Value of Assets at End of Year	\$14,706,887	\$14,239,291
7. Market Value of Assets - End of Year	\$15,304,541	\$14,412,104
8. Gain (Loss) for Plan Year = (7) - (6)	\$597,654	\$172,813

Fiscal Year End	2015	2014
1. Market Value of Assets - Beginning of Year	\$12,863,211	\$11,561,929
2. Expected Interest on Assets	1,029,057	924,954
3. Contributions	812,038	687,902
4. Benefit Payments + Administrative Expenses	(494,147)	(515,662)
5. Interest on items (3) and (4)	<u>12,716</u>	<u>6,890</u>
6. Expected Value of Assets at End of Year	\$14,222,875	\$12,666,013
7. Market Value of Assets - End of Year	\$13,177,393	\$12,863,211
8. Gain (Loss) for Plan Year = (7) - (6)	\$(1,045,482)	\$197,198

Historical Asset Values

<u>Year Ending September 30,</u>	<u>Actuarial Value of Assets</u>	<u>Fair Market Value of Assets</u>	<u>% Market Return</u>	<u>% Actuarial Return</u>	<u>% Assumed Return</u>
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 %
2008	9,128,693	7,794,927	(12.30)%	(12.30)%	8.00 %

Historical Contribution Amounts

<u>Year Ending September 30,</u>	<u>Employer</u>	<u>Members</u>	<u>Total</u>
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
2008	314,021	267,851	581,872

Historical Deductions from Fund

<u>Year Ending September 30,</u>	<u>Benefits</u>	<u>Refunds</u>	<u>Administrative Expense</u>	<u>Total</u>
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
2008	192,327	180,118	40,905	413,350

Present Value of Benefits

Valuation as of October 1,	2016	2017
1. Active Members		
a. Retirement Benefits	\$11,370,269	\$12,021,515
b. Deferred Benefits	828,354	876,600
c. Survivor Benefits	667,933	525,757
d. Disability Retirement	<u>476,803</u>	<u>534,962</u>
e. Total for Active Members	\$13,343,359	\$13,958,834
2. Inactive Members		
a. Retired Members	\$8,354,362	\$8,034,605
b. Terminated members	38,155	128,710
c. Beneficiaries	488,597	447,133
d. Disability Retirement	<u>160,104</u>	<u>156,985</u>
e. Total for Inactive Members	\$9,041,218	\$8,767,433
3. Present Value of Benefits	\$22,384,577	\$22,726,267

Accrued Liability

Valuation as of October 1,	2016	2017
1. Active Members		
a. Retirement Benefits	\$8,519,887	\$8,916,706
b. Deferred Benefits	115,817	106,459
c. Survivor Benefits	303,551	281,724
d. Disability Retirement	<u>214,339</u>	<u>250,308</u>
e. Total for Active Members	\$9,153,594	\$9,555,197
2. Inactive Members		
a. Retired Members	\$8,354,362	\$8,034,605
b. Terminated members	38,155	128,710
c. Beneficiaries	488,597	447,133
d. Disability Retirement	<u>160,104</u>	<u>156,985</u>
e. Total for Inactive Members	\$9,041,218	\$8,767,433
3. Accrued Liability	\$18,194,812	\$18,322,630

Normal Cost

Valuation as of October 1,		2016	2017
1.	Preliminary Normal Cost		
a.	Retirement Benefits	\$400,908	\$434,409
b.	Deferred Benefits	91,722	97,174
c.	Survivor Benefits	51,306	34,867
d.	Disability Retirement	<u>36,805</u>	<u>39,425</u>
e.	Total	\$580,741	\$605,875
2.	Total Normal Cost		
a.	Preliminary Normal Cost	\$580,741	\$605,875
b.	Estimated Administrative Expense	<u>55,175</u>	<u>46,286</u>
c.	Total Normal Cost	\$635,916	\$652,161
d.	Total Normal Cost as a Percent of Pay	14.7%	14.1%
3.	Employer Normal Cost		
a.	Preliminary Normal Cost	\$580,741	
b.	Actual Administrative Expense	46,286	
c.	Actual Employee Contributions	<u>(275,299)</u>	
d.	Employer Normal Cost	\$351,728	
4.	Valuation Payroll	\$4,332,096	\$4,635,422

Unfunded Accrued Liability

Derivation of Unfunded Accrued Liability (UAL)

Unfunded Accrued Liability

1. Accrued Liability	\$18,322,630
2. Actuarial Value of Assets	<u>(15,101,483)</u>
3. Unfunded Accrued Liability	\$3,221,147

Determination of Expected Unfunded Accrued Liability

1. Unfunded Accrued Liability as of Prior Year	\$3,389,344
2. Interest for a full year on (1)	267,758
3. Employer Normal Cost (Including Administrative Expenses) as of Prior Yr.	351,728
4. Interest for a full year on (3)	27,787
5. City Contribution	(680,623)
6. Interest on Contribution for Time on Deposit	(33,417)
7. Change in Plan, Methods or Assumptions	<u>32,034</u>
8. Expected Unfunded Accrued Liability	\$3,354,611

Calculation of (Gain) or Loss

1. Actual Unfunded Accrued Liability	\$3,221,147
2. Expected Unfunded Accrued Liability	<u>3,354,611</u>
3. Total (Gain) or Loss	\$(133,464)

Reconciliation of Unfunded Accrued Liability

1. Unfunded Accrued Liability as of Prior Year	\$3,389,344
2. Total Change in Unfunded Accrued Liability	
a. Expected Change in Unfunded Accrued Liability	\$(66,767)
b. Change in Plan, Methods or Assumptions	32,034
c. Change Due to (Gain) or Loss	
i. Portion of (Gain) / Loss Due to Investments	\$29,844
ii. Portion of (Gain) / Loss Due to Demographic Experience	<u>(163,308)</u>
iii. Total (Gain) or Loss	\$(133,464)
d. Total Change in Unfunded Accrued Liability	\$(168,197)
3. Unfunded Accrued Liability	\$3,221,147

Amortization of Unfunded Liability

The Unfunded Actuarial Accrued Liability is being amortized as a level percentage of payroll based on the interest and payroll growth assumptions. 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	0.9% Amortization Payment
1.	2005	Method Change	\$(387,558)	\$(395,655)	\$(390,438)	18	\$(36,133)
2.	2006	Actuarial Loss	106,045	108,297	106,869	19	9,624
3.	2007	Actuarial Loss	131,907	134,406	132,634	20	11,651
4.	2008	Actuarial Loss	1,566,340	1,588,668	1,567,724	21	134,619
5.	2008	Method Change	5,097	5,168	5,100	21	438
6.	2008	Method Change	(1,333,766)	(1,352,776)	(1,334,941)	21	(114,630)
7.	2009	Actuarial Loss	317,686	320,053	315,834	22	26,563
8.	2010	Actuarial Loss	30,104	30,067	29,671	23	2,448
9.	2010	Plan Change	394,556	394,078	388,883	23	32,089
10.	2011	Actuarial Loss	548,021	541,704	534,562	24	43,346
11.	2012	Actuarial Gain	(66,804)	(65,248)	(64,388)	25	(5,138)
12.	2012	Asmp/Method Chg	810,340	791,473	781,038	25	62,321
13.	2013	Actuarial Loss	327,128	317,948	313,756	26	24,667
14.	2013	Assumption Chg	21,426	20,824	20,549	26	1,616
15.	2014	Actuarial Loss	40,289	39,168	38,652	27	2,998
16.	2014	Assumption Chg	22,355	21,733	21,446	27	1,663
17.	2015	Actuarial Loss	132,333	129,010	127,309	23	10,505
18.	2015	Assumption Chg	23,782	23,184	22,878	23	1,888
19.	2016	Actuarial Gain	(120,869)	(120,012)	(118,430)	24	(9,603)
20.	2016	Assumption Chg	840,843	834,876	823,869	24	66,804
21.	2017	Actuarial Gain	(133,464)	(133,464)	(133,464)	25	(10,649)
22.	2017	Assumption Chg	32,034	32,034	32,034	25	<u>2,556</u>
Scheduled Amortization Payment							\$259,643
Outstanding Bases				\$3,265,536	\$3,221,147		
Unfunded Accrued Liability				3,221,147			

Projected Unfunded Accrued Liability and Amortization Payments

Plan Year Beginning October 1	Total Outstanding Bases	Total Amortization Payment
2017	\$3,221,147	\$259,643
2018	3,195,463	261,982
2019	3,165,226	264,336
2020	3,130,060	266,718
2021	3,089,546	269,116
2022	3,043,244	271,542
2023	2,990,667	273,983
2024	2,931,302	276,449
2025	2,864,586	278,935
2026	2,789,917	281,446
2027	2,706,641	283,980
2028	2,614,051	286,535
2029	2,511,390	289,115
2030	2,397,834	291,718
2031	2,272,499	294,341
2032	2,134,433	296,992
2033	1,982,599	299,664
2034	1,815,887	302,364
2035	1,633,091	347,538
2036	1,387,112	339,254
2037	1,130,639	328,374
2038	865,644	306,671
2039	603,131	277,082
2040	351,807	221,903
2041	140,166	99,235
2042	44,165	38,713
2043	5,883	5,883
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,	2016 2018	2017 2019
1. Minimum Required Contribution		
a. Total Normal Cost	\$635,916	\$652,161
b. Amortization of Unfunded Accrued Liability	<u>268,893</u>	<u>259,643</u>
c. Beginning of Year Contribution	\$904,809	\$911,804
d. Interest	<u>91,723</u>	<u>92,463</u>
e. Minimum Required Contribution	\$996,532	\$1,004,267
f. Percent of Pay	24.44 %	24.30 %
2. Expected Member Contributions		
a. Expected Member Contributions	\$244,679	\$247,975
b. Percent of Pay	6.00 %	6.00 %
3. City Policy Contribution		
a. City Policy Contribution	\$751,853	\$756,292
b. Percent of Valuation Payroll	18.44 %	18.30 %
4. Valuation Payroll	\$4,077,976	\$4,132,914

Note: The \$751,853 minimum funding requirement for fiscal 2018 must be deposited on December 15, 2017. The \$756,292 minimum funding requirement for fiscal 2019 must be deposited on December 15, 2018.

Reconciliations

Reconciliation of Funded Status

Change in Funded Percentage

	Unfunded Accrued Liability	Funded Percentage	Change in Unfunded Accrued Liability	Change in Funded Percentage
As of Prior Valuation	\$3,389,344	81.37 %		
Changes in due to:				
Normal Operation of Plan	3,322,577	82.00 %	\$(66,767)	0.63 %
Investment Experience	3,352,421	81.83 %	29,844	(0.17)%
Demographic Experience	3,189,113	82.56 %	(163,308)	0.73 %
Required Mortality Change	3,221,147	82.42 %	<u>32,034</u>	<u>(0.14)%</u>
Total Changes			\$(168,197)	1.05 %
As of Current Valuation	\$3,221,147	82.42 %		

Reconciliation of City Minimum Funding Requirement

	Dollar Amount	% of Pay
City Required Contribution for Fiscal 2018	\$751,853	18.44 %
Changes in Contribution due to:		
Normal Operation of Plan	\$(83,821)	0.00 %
Change in Expenses	(9,737)	(0.27)%
Investment Experience	2,609	0.07 %
Demographic Experience	95,766	0.07 %
Required Mortality Change	<u>(378)</u>	<u>(0.01)%</u>
Total Changes	\$4,439	(0.14)%
City Required Contribution for Fiscal 2019	\$756,292	18.30 %

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,	2016	2017
1. Actuarial present value of accumulated benefits		
a. Participants currently receiving benefits	\$9,003,063	\$8,638,723
b. Other participants	<u>5,909,119</u>	<u>5,977,211</u>
c. Vested participants	\$14,912,182	\$14,615,934
d. Nonvested participants	<u>1,204,586</u>	<u>1,328,424</u>
e. Total	\$16,116,768	\$15,944,358
2. Change in actuarial present value of accumulated benefits		
a. Actuarial present value of accumulated benefits beginning of year		\$16,116,768
b. Increase (decrease) during year attributable to:		
i. Plan amendment		\$0
ii. Change in assumptions or methods		(203,305)
iii. Increase for interest and probability of payment due to decrease in discount period and benefits accrued		1,758,525
iv. Benefits paid		(1,727,630)
v. Other		<u>0</u>
vi. Net increase (decrease)		\$(172,410)
c. Actuarial present value of accumulated benefits end of year		\$15,944,358

Other Disclosures Required by the State of Florida

Valuation as of October 1,	2016	2017
Present value of active member:		
Future salaries (attained age)	\$32,668,614	\$35,614,605
Future contributions (attained age)	\$1,960,117	\$2,136,876
Balance of contributions with interest for actives	\$2,963,048	\$3,077,629

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 and 2017 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 (5.9%)	Current Discount Rate (7.9%)	2% Increase (9.9%)
Total pension liability	\$23,135,583	\$18,322,630	\$14,915,815
Plan fiduciary net position	<u>(15,304,541)</u>	<u>(15,304,541)</u>	<u>(15,304,541)</u>
Net pension liability	<u>\$7,831,042</u>	<u>\$3,018,089</u>	<u>\$(388,726)</u>
 Plan fiduciary net position as a percentage of the total pension liability	 66.15%	 83.53%	 102.61%
 Years of benefit payments:			
Expected for current members:	100	100	100
Paid for with current assets:	14.52	17.58	24.12
 City Plus State Contribution Requirement, Plus Expected Employee Contributions			
Dollar Amount	\$1,608,291	\$1,004,267	\$534,846
Percent of Payroll	38.91%	24.30%	12.94%

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,	2017	2016	2015	2014	2013
Assumed rate of return	7.9%	8.0%	8.0%	8.0%	8.0%
Actual rate of return	12.2%	9.3%	(0.0%)	9.7%	8.8%
Percentages of assets in:					
Cash	2%	1%	2%	2%	0%
Equity	74%	74%	68%	69%	59%
Bond	19%	19%	28%	28%	41%
Alternative	5%	6%	2%	1%	0%
Total	100%	100%	100%	100%	100%

Section 4 Supplementary Information

Summary of Participant Data

Valuation as of October 1,	2016	2017
<u>Active Participants</u>		
Number	134	136
Average Age	46.6	45.9
Average Credited Service	8.8	8.8
Percent Male	70.9	73.5
Average Valuation Salary	\$33,814	\$34,873
Total Valuation Salary	\$4,531,079	\$4,742,715
Payroll Covered in Valuation	\$4,332,096	\$4,635,422
<u>Terminated With Rights to Deferred Benefits</u>		
Number	2	4
Average Age	41.4	47.8
Percent Male	50.0	50.0
Average Monthly Benefit	\$870	\$778
<u>Retirements (DROP and Service Retirees)</u>		
Number	37	40
Average Age	67.9	68.2
Percent Male	78.4	75.0
Average Monthly Benefit	\$1,578	\$1,581
Total of DROP Account Balances September 30	\$1,162,679	\$285,139
<u>Beneficiaries</u>		
Number	8	6
Average Age	72.3	70.2
Percent Male	12.5	16.7
Average Monthly Benefit	\$533	\$633
<u>Disability Retirements</u>		
Number	4	4
Average Age	66.5	67.5
Percent Male	75.0	75.0
Average Monthly Benefit	\$458	\$458

Number of Active Members by Age and Service as of October 1, 2017

Age	Service									Total
	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	< 40	
< 20										
< 25	4	7								11
< 30	3	4	3	1						11
< 35	4	4	3	3						14
< 40	4	6	1	1	1					13
< 45	1	3	2	2	1					9
< 50	2	1	2	5	2					12
< 55	3	4	2	3	6	1	3	1		23
< 60		5	7	4	2	3	1		2	24
< 65		5	6	1	5		1			18
65+			1							1
Total	21	39	27	20	17	4	5	1	2	136

Active Valuation Pay by Age and Service as of October 1, 2017

Age	Service									Total
	< 1	< 5	< 10	< 15	< 20	< 25	< 30	< 35	< 40	
< 20										
< 25	22,880	25,684								24,664
< 30	22,880	24,538	37,627	26,727						27,855
< 35	24,960	25,655	30,477	31,710						27,787
< 40	26,780	38,176	44,835	35,214	45,131					35,489
< 45	45,900	24,480	39,362	39,076	31,330					34,172
< 50	24,440	22,880	50,573	37,629	48,078					38,101
< 55	32,198	37,311	30,992	30,379	38,588	43,133	49,690	49,920		37,940
< 60		29,600	31,064	34,727	36,883	52,984	40,404		78,070	38,901
< 65		30,406	29,888	37,362	51,156		46,500			37,278
65+			72,650							72,650
Total	26,595	29,621	35,571	34,539	43,158	50,521	47,195	49,920	78,070	34,873

Reconciliation of Plan Participants

	Active	Retired	DROP	Deferred Vested	Disabled	Survivor	Totals
October 1, 2016	134	30	7	2	4	8	185
Active							
To Retired	(3)	3					0
To DROP	(1)		1				0
To Deferred Vested	(1)			1			0
To Nonvested Termination	(12)						(12)
Retired							
To Deferred Vested		(1)		1			0
DROP							
To Retired		4	(4)				0
Survivor							
To Death						(2)	(2)
Additions	20	0	0	0	0	0	20
Departures	(1)	0	0	0	0	0	(1)
October 1, 2017	136	36	4	4	4	6	190

Note: The one active "departure" is a non-vested termination from the General Plan who is actively employed by the City at October 1, 2017 as a member of the Police Plan.

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:

$$2.75\% \times \text{Average Monthly Compensation} \times \text{Credited Service up to 30 years}$$

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: 7.9% per year, net of investment expenses

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.

The payroll growth assumption used to amortize unfunded accrued liability as a level percent of payroll is 0.9%.

Mortality: In the prior valuation, the mortality table was that used for NOT special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2015, as required by state statute. The mortality table has been revised to that used for NOT special risk employees in the valuation of FRS as of July 1, 2016 and 2017, as required by state statute. While healthy post-retirement mortality and disabled mortality rates were unchanged, healthy pre-retirement was revised. 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:

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