

CITY OF WINTER GARDEN  
PENSION PLAN FOR GENERAL EMPLOYEES

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2019

CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2021

GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2019



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

March 2, 2020

Board of Trustees  
City of Winter Garden  
General Employees' Pension Board

Re: City of Winter Garden Pension Plan for General Employees

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Winter Garden Pension Plan for General Employees. Included are the related results for GASB Statements No. 67 and No. 68. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Chapter 112, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuations, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuations, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Winter Garden, financial reports prepared by the custodian bank, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2018. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2019 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.

The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Winter Garden, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Pension Plan for General Employees. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully submitted,



Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #17-7778



Peter McCloud, FSA, EA  
Enrolled Actuary #17-6101

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Winter Garden Pension Plan for General Employees, performed as of October 1, 2019, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2021.

The contribution requirements, compared with those set forth in the October 1, 2018 actuarial valuation report, are as follows:

Valuation Date	10/1/2019	10/1/2018
Applicable to Fiscal Year Ending	<u>9/30/2021</u>	<u>9/30/2020</u>
Minimum Required Contribution % of Projected Annual Payroll	16.45%	15.82%
Member Contributions (Est.) % of Projected Annual Payroll	2.50%	2.50%
City Required Contribution <sup>2</sup> % of Projected Annual Payroll	13.95%	13.32%

<sup>1</sup> Please note that the City has access to a prepaid contribution of \$111,106.06 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2020.

As you can see, the Minimum Required Contribution shows an increase when compared to the results determined in the October 1, 2018 actuarial valuation report. Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included unfavorable turnover experience and an investment return of 6.71% (Actuarial Asset Basis) which fell short of the 7.25% assumption. There were no significant sources of actuarial gain.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

There have been no changes in benefits since the prior valuation.

### Actuarial Assumption/Method Changes

There have been no changes of actuarial assumptions or methods since the prior valuation.

## CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2018	13.32%
(2) Summary of Contribution Impact by component:	
Change in Normal Cost Rate	0.12%
Change in Administrative Expense Percentage	-0.03%
Payroll Change Effect on UAAL Amortization	-0.22%
Investment Return (Actuarial Asset Basis)	0.24%
Salary Increases	-0.07%
Active Decrements	0.57%
Inactive Mortality	0.04%
Assumption Change	0.00%
Other	<u>-0.02%</u>
Total Change in Contribution	0.63%
(3) Contribution Determined as of October 1, 2019	13.95%

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2019</u>	<u>10/1/2018</u>
A. Participant Data		
Actives	156	153
Service Retirees	66	61
DROP Retirees	3	5
Beneficiaries	5	6
Disability Retirees	2	2
Terminated Vested	<u>122</u>	<u>114</u>
Total	354	341
Total Annual Payroll	\$9,075,277	\$8,601,087
Payroll Under Assumed Ret. Age	8,974,895	8,503,628
Annual Rate of Payments to:		
Service Retirees	1,296,931	1,191,226
DROP Retirees	105,954	165,931
Beneficiaries	62,193	65,781
Disability Retirees	35,745	35,745
Terminated Vested	477,368	489,725
B. Assets		
Actuarial Value (AVA) <sup>1</sup>	30,263,004	28,533,898
Market Value (MVA) <sup>1</sup>	30,162,069	29,226,754
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	17,831,542	16,211,207
Disability Benefits	1,177,321	992,757
Death Benefits	258,078	246,149
Vested Benefits	3,677,683	3,474,965
Refund of Contributions	81,997	81,733
Service Retirees	12,771,930	11,711,410
DROP Retirees <sup>1</sup>	1,361,098	1,983,691
Beneficiaries	594,032	642,773
Disability Retirees	419,929	424,613
Terminated Vested	<u>2,155,088</u>	<u>2,191,913</u>
Total	40,328,698	37,961,211

C. Liabilities - (Continued)	<u>10/1/2019</u>	<u>10/1/2018</u>
Present Value of Future Salaries	60,108,203	58,197,801
Present Value of Future Member Contributions	1,502,705	1,454,945
Normal Cost (Retirement)	636,823	588,660
Normal Cost (Disability)	62,010	55,334
Normal Cost (Death)	12,837	12,237
Normal Cost (Vesting)	247,609	241,375
Normal Cost (Refunds)	<u>24,961</u>	<u>25,045</u>
Total Normal Cost	984,240	922,651
Present Value of Future Normal Costs	5,985,143	5,738,375
Accrued Liability (Retirement)	13,973,608	12,534,932
Accrued Liability (Disability)	774,808	630,942
Accrued Liability (Death)	179,046	169,382
Accrued Liability (Vesting)	2,095,640	1,915,326
Accrued Liability (Refunds)	18,376	17,854
Accrued Liability (Inactives) <sup>1</sup>	<u>17,302,077</u>	<u>16,954,400</u>
Total Actuarial Accrued Liability (EAN AL)	34,343,555	32,222,836
Unfunded Actuarial Accrued Liability (UAAL)	4,080,551	3,688,938
Funded Ratio (AVA / EAN AL)	88.1%	88.6%

D. Actuarial Present Value of Accrued Benefits	<u>10/1/2019</u>	<u>10/1/2018</u>
Vested Accrued Benefits		
Inactives <sup>1</sup>	17,302,077	16,954,400
Actives	9,190,693	7,978,266
Member Contributions	<u>1,070,361</u>	<u>930,260</u>
Total	27,563,131	25,862,926
Non-vested Accrued Benefits	<u>1,487,605</u>	<u>1,391,851</u>
Total Present Value Accrued Benefits (PVAB)	29,050,736	27,254,777
Funded Ratio (MVA / PVAB)	103.8%	107.2%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	1,364,130	
Benefits Paid	(1,490,125)	
Interest	1,921,954	
Other	<u>0</u>	
Total	1,795,959	

Valuation Date	10/1/2019	10/1/2018
Applicable to Fiscal Year Ending	<u>9/30/2021</u>	<u>9/30/2020</u>

E. Pension Cost

Normal Cost (with interest) % of Total Annual Payroll <sup>2</sup>	11.36	11.24
Administrative Expenses (with interest) % of Total Annual Payroll <sup>2</sup>	0.43	0.46
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 17 years (as of 10/1/2019, with interest) % of Total Annual Payroll <sup>2</sup>	4.66	4.12
Minimum Required Contribution % of Total Annual Payroll <sup>2</sup>	16.45	15.82
Expected Member Contributions % of Total Annual Payroll <sup>2</sup>	2.50	2.50
Expected City Contribution % of Total Annual Payroll <sup>2</sup>	13.95	13.32

F. Past Contributions

Plan Years Ending:	<u>9/30/2019</u>
Total Required Contribution	1,347,803
City Requirement	1,127,430
Actual Contributions Made:	
Members (excluding buyback)	220,373
City	1,127,430
Total	1,347,803

G. Net Actuarial (Gain)/Loss 494,515

<sup>1</sup> The asset values and liabilities include accumulated DROP Plan Balances as of 9/30/2019 and 9/30/2018.

<sup>2</sup> Contributions developed as of 10/1/2019 are expressed as a percentage of total annual payroll at 10/1/2019 of \$8,974,895.

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2019	4,080,551
2020	3,943,306
2021	3,796,113
2025	3,184,470
2029	1,780,367
2032	1,014,816
2036	0

I. (i) 5 Year Comparison of Actual and Assumed Salary Increases

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2019	5.71%	5.16%
Year Ended 9/30/2018	5.30%	5.29%
Year Ended 9/30/2017	6.51%	5.27%
Year Ended 9/30/2016	4.20%	6.25%
Year Ended 9/30/2015	4.81%	6.01%

(ii) 5 Year Comparison of Investment Return on Market Value and Actuarial Value

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2019	3.83%	6.71%	7.25%
Year Ended 9/30/2018	9.44%	7.87%	7.25%
Year Ended 9/30/2017	10.55%	7.91%	7.25%
Year Ended 9/30/2016	7.76%	9.20%	7.25%
Year Ended 9/30/2015	0.57%	8.92%	7.25%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2019	\$8,974,895
	10/1/2009	7,270,219
(b) Total Increase		23.45%
(c) Number of Years		10.00
(d) Average Annual Rate		2.13%

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation 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.



Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #17-7778

Please let us know when the report is approved by the Board and unless otherwise directed we will provide a copy of the report to the following office to comply with Chapter 112 Florida Statutes:

Mr. Keith Brinkman  
Bureau of Local  
Retirement Systems  
Post Office Box 9000  
Tallahassee, FL 32315-9000

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2018	\$3,688,938
(2) Sponsor Normal Cost developed as of October 1, 2018	710,060
(3) Expected administrative expenses for the year ended September 30, 2019	37,430
(4) Expected interest on (1), (2) and (3)	320,284
(5) Sponsor contributions to the System during the year ended September 30, 2019	1,127,430
(6) Expected interest on (5)	43,246
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2019 (1)+(2)+(3)+(4)-(5)-(6)	3,586,036
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	494,515
(10) Unfunded Actuarial Accrued Liability as of October 1, 2019	4,080,551

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2019 <u>Amount</u>	Amortization <u>Amount</u>
Method Change	10/1/2010	11	706,742	88,975
Assumption Change	10/1/2010	11	(29,771)	(3,748)
Reconciliation Base	10/1/2011	2	(140,098)	(72,499)
Actuarial Loss	10/1/2011	2	180,102	93,201
Actuarial Loss	10/1/2012	3	90,133	32,170
Assumption Change	10/1/2012	13	269,511	30,495
Actuarial Gain	10/1/2013	4	(40,643)	(11,251)
Actuarial Gain	10/1/2014	5	(379,834)	(86,955)
Actuarial Gain	10/1/2015	6	(192,588)	(37,964)
Actuarial Gain	10/1/2016	7	(521,473)	(91,008)
Assumption Changes	10/1/2016	17	1,973,127	191,712
Benefit Change	10/1/2016	17	918,197	89,213
Actuarial Loss	10/1/2017	8	475,984	75,045
Actuarial Loss	10/1/2018	9	276,647	40,013
Actuarial Loss	10/1/2019	10	<u>494,515</u>	<u>66,409</u>
			4,080,551	403,808

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2018	\$3,688,938
(2) Expected UAAL as of October 1, 2019	3,586,036
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	154,378
Salary Increases	(44,252)
Active Decrements	366,578
Inactive Mortality	27,965
Other	<u>(10,154)</u>
Increase in UAAL due to (Gain)/Loss	494,515
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2019	\$4,080,551

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

*Healthy Active Lives:*

**Female:** RP2000 Generational, 100% White Collar, Scale BB

**Male:** RP2000 Generational, 50% White Collar / 50% Blue Collar, Scale BB

*Healthy Inactive Lives:*

**Female:** RP2000 Generational, 100% Annuitant White Collar, Scale BB

**Male:** RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB

*Disabled Lives:*

**Female:** 100% RP2000 Disabled Female set forward two years

**Male:** 100% RP2000 Disabled Male setback four years

The assumed rates of mortality are mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2018 FRS actuarial valuation report for non-special risk lives. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate

7.25% per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Salary Increases

Salary Scale	
Service	Rate
First Year	6.00%
1	5.75%
2-4	5.50%
5-9	5.25%
10-14	5.00%
15-24	4.50%
25+	4.00%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Payroll Growth

0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.

Administrative Expenses

\$36,926 annually, based on the average of actual expenses incurred in the prior two fiscal years. Previously, the actual expense in the prior fiscal year was used. Using a two-year average results in a less volatile estimate than the prior method.

Amortization Method

New UAAL amortization bases are established according to the following amortization periods:

Experience: 10 Years.  
Assumption/Method Changes: 20 Years.  
Benefit Changes: 30 Years.

Funding Method

Entry Age Normal Actuarial Cost Method.

Normal Retirement Rates

% Retiring During the Year	
Years Following	
First Eligibility	Rate
0	60.0%
1-2	50.0%
3-6	20.0%
7+	100.0%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Early Retirement Rates

% Retiring During the Year	
Age	Rate
60	5.0%
61	10.0%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Cost of Living Adjustments

None.

Termination Rates

<u>% Terminating During the Year</u>	
<u>Service</u>	<u>Rate</u>
Less than 3	18.0%
3-6	12.0%
7-24	6.0%
25+	0.0%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Actuarial Value of Assets

The Actuarial Value of Assets utilizes a five-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased-in over a five-year period.

Terminal Leave Pay

<u>Present Value of Retirement Liability</u>	<u>Percentage Increase to Liability (Hired Before October 1, 2000)</u>	<u>Percentage Increase to Liability (Hired After September 30, 2000)</u>
Normal	6.0%	3.0%
Early	3.0%	1.5%
Vesting	3.0%	1.5%
Death	3.0%	1.5%
Disability	3.0%	1.5%

The assumed rates are based on data provided by the City. Also, no liability increases are utilized for Members hired after June 30, 2011.

Disability Rates

<u>% Becoming Disabled During the Year</u>	
<u>Age</u>	<u>Rate</u>
20	0.07%
25	0.09%
30	0.11%
35	0.14%
40	0.19%
45	0.30%
50	0.51%
55	0.96%
60	1.66%

This assumption was reviewed in conjunction with an actuarial experience study as of September 30, 2007.

## GLOSSARY

Total Annual Payroll is the projected annual rate of pay as of the valuation date of all covered Members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Normal (Current Year's) Cost is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

- (a) The normal cost accrual rate equals:
  - (i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by
  - (ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
- (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
- (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.
- (d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the actuarial value of assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

## DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

### Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 126.9% on October 1, 2016 to 120.0% on October 1, 2019, indicating that the plan has been maturing during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 50.4%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has decreased from 90.2% on October 1, 2016 to 88.1% on October 1, 2019, due to net unfavorable experience realized by the plan, as well as benefit and assumption changes implemented during the period.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, stayed approximately the same from October 1, 2016 to October 1, 2019. The current Net Cash Flow Ratio of -0.6% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks in this section as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Support Ratio</u>				
Total Actives	151	154	153	156
Total Inactives <sup>1</sup>	119	127	129	130
Actives / Inactives <sup>1</sup>	126.9%	121.3%	118.6%	120.0%
 <u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	24,622,751	26,895,165	29,226,754	30,162,069
Total Annual Payroll	7,790,281	8,400,809	8,601,087	9,075,277
MVA / Total Annual Payroll	316.1%	320.1%	339.8%	332.4%
 <u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	13,593,851	14,752,459	16,954,400	17,302,077
Total Accrued Liability (EAN)	27,714,577	30,005,311	32,222,836	34,343,555
Inactive AL / Total AL	49.0%	49.2%	52.6%	50.4%
 <u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	24,989,486	26,642,304	28,533,898	30,263,004
Total Accrued Liability (EAN)	27,714,577	30,005,311	32,222,836	34,343,555
AVA / Total Accrued Liability (EAN)	90.2%	88.8%	88.6%	88.1%
 <u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>2</sup>	(210,044)	(312,119)	(196,909)	(178,744)
Market Value of Assets (MVA)	24,622,751	26,895,165	29,226,754	30,162,069
Ratio	-0.9%	-1.2%	-0.7%	-0.6%

<sup>1</sup> Excludes terminated participants awaiting a refund of member contributions.

<sup>2</sup> Determined as total contributions minus benefit payments and administrative expenses.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2019

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	970,659.07	970,659.07
Total Cash and Equivalents	970,659.07	970,659.07
Receivables:		
From Police Officers' & Firefighters' Trust Fund	46.14	46.14
Investment Income	68,001.17	68,001.17
Total Receivable	68,047.31	68,047.31
Investments:		
U. S. Bonds and Bills	2,033,549.36	2,223,444.45
Federal Agency Guaranteed Securities	295,966.02	287,617.07
Corporate Bonds	3,891,416.42	3,929,159.15
Stocks	12,282,955.30	13,295,686.38
Mutual Funds:		
Fixed Income	1,191,724.54	1,007,053.76
Equity	6,088,435.99	6,327,426.19
Pooled/Common/Commingled Funds:		
Real Estate	1,828,873.00	2,189,585.00
Total Investments	27,612,920.63	29,259,972.00
Total Assets	28,651,627.01	30,298,678.38
<u>LIABILITIES</u>		
Payables:		
Refunds of Member Contributions	3,340.12	3,340.12
Investment Expenses	14,604.73	14,604.73
Administrative Expenses	1,307.60	1,307.60
Prepaid Member Contribution	6,250.43	6,250.43
Prepaid City Contribution	111,106.06	111,106.06
Total Liabilities	136,608.94	136,608.94
NET POSITION RESTRICTED FOR PENSIONS	28,515,018.07	30,162,069.44

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2019  
Market Value Basis

ADDITIONS

Contributions:

Member	220,373.24	
City		1,127,429.50

Total Contributions 1,347,802.74

Investment Income:

Net Realized Gain (Loss)	1,832,794.74	
Unrealized Gain (Loss)	(1,403,625.93)	
Net Increase in Fair Value of Investments		429,168.81
Interest & Dividends		842,669.81
Less Investment Expense <sup>1</sup>		(157,778.34)

Net Investment Income 1,114,060.28

Total Additions 2,461,863.02

DEDUCTIONS

Distributions to Members:

Benefit Payments	1,363,166.62	
Lump Sum DROP Distributions	63,018.10	
Lump Sum PLOP Distributions	32,951.37	
Refunds of Member Contributions	30,989.28	

Total Distributions 1,490,125.37

Administrative Expense 36,421.84

Total Deductions 1,526,547.21

Net Increase in Net Position 935,315.81

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 29,226,753.63

End of the Year 30,162,069.44

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS AS OF SEPTEMBER 30

	2019	2020	2021	2022	2023
A. Preliminary Actuarial Value Prior Year	28,533,898				
B. Market Value Beginning of Year	29,226,754				
C. Market Value End of Year	30,162,069				
D. Non-investment net cash flow	(178,744)				
E. Investment Return					
1. Actual market return net of investment expenses: C - B - D	1,114,060				
2. Expected return of 7.25%: (B + D/2) * 0.0725	2,112,460				
3. Excess/(shortfall): E1 - E2	(998,400)				
F. Phased-in recognition of Investment Return					
1. Current year: 20% of E3	(199,680)				
2. 20% from first prior year	117,147	(199,680)			
3. 20% from second prior year	162,140	117,147	(199,680)		
4. 20% from third prior year	22,064	162,140	117,147	(199,680)	
5. 20% from fourth prior year	(306,281)	22,065	162,138	117,147	(199,680)
6. Total phased in investment return	(204,610)	101,672	79,605	(82,533)	(199,680)
G. Actuarial Value (AV) End of Year					
1. Preliminary AV end of year: A + D + E2 + F6	30,263,004				
2. Upper corridor limit: 120% * C	36,194,483				
3. Lower corridor limit: 80% * C	24,129,656				
4. Actuarial value end of year	30,263,004				
H. Difference between MV and AV:	(100,934)				
I. Net Investment Income:					
1. Interest and Dividends	842,670				
2. Realized Gain (Loss)	1,832,795				
3. Change in Actuarial Value	793,790				
4. Unrealized Gain (Loss)	(1,403,626)				
5. Investment Expenses	(157,778)				
	<u>1,907,850</u>				
Actuarial Assets Rate of Return = 2I/(A+G-I):	6.71%				
Market Value of Assets Rate of Return:	3.83%				
Actuarial Gain/(Loss) due to Investment Return: (Actuarial Asset Basis)	(154,378)				

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2019  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	220,373.24	
City	1,127,429.50	
<b>Total Contributions</b>		<b>1,347,802.74</b>
Earnings from Investments:		
Interest & Dividends	842,669.81	
Net Realized Gain (Loss)	1,832,794.74	
Unrealized Gain (Loss)	(1,403,625.93)	
Change in Actuarial Value	793,789.72	
<b>Total Earnings and Investment Gains</b>		<b>2,065,628.34</b>

EXPENDITURES

Distributions to Members:		
Benefit Payments	1,363,166.62	
Lump Sum DROP Distributions	63,018.10	
Lump Sum PLOP Distributions	32,951.37	
Refunds of Member Contributions	30,989.28	
<b>Total Distributions</b>		<b>1,490,125.37</b>
Expenses:		
Investment related <sup>1</sup>	157,778.34	
Administrative	36,421.84	
<b>Total Expenses</b>		<b>194,200.18</b>
<b>Change in Net Assets for the Year</b>		<b>1,729,105.53</b>
<b>Net Assets Beginning of the Year</b>		<b>28,533,898.35</b>
<b>Net Assets End of the Year<sup>2</sup></b>		<b>30,263,003.88</b>

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

<sup>2</sup>Net Assets may be limited for actuarial consideration.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2018 to September 30, 2019

Beginning of the Year Balance	104,240.11
Plus Additions	128,011.66
Investment Return Earned	14,726.31
Less Distributions	(63,018.10)
End of the Year Balance	183,959.98

RECONCILIATION OF CITY'S SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2019

(1)	Total Required Contribution Rate	15.29%
(2)	Pensionable Payroll Derived from Member Contributions	\$8,814,929.60
(3)	Total Required Contribution (1) x (2)	1,347,802.74
(4)	Less Actual Member Contributions	(220,373.24)
(5)	Equals Required City Contribution for Fiscal 2019	1,127,429.50
(6)	Less 2018 Prepaid Contribution	(65,550.26)
(7)	Less Actual City Contributions	<u>(1,172,985.30)</u>
(8)	Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2019	(\$111,106.06)

STATISTICAL DATA

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Actives</u>				
Number	151	154	153	156
Average Current Age	44.6	44.9	44.7	45.6
Average Age at Employment	36.8	37.2	37.0	37.5
Average Past Service	7.8	7.7	7.7	8.1
Average Annual Salary	\$51,591	\$54,551	\$56,216	\$58,175
<u>Service Retirees</u>				
Number	54	59	61	66
Average Current Age	69.2	69.3	69.6	69.5
Average Annual Benefit	\$19,197	\$19,528	\$19,528	\$19,650
<u>DROP Retirees</u>				
Number	0	1	5	3
Average Current Age	N/A	71.3	61.4	63.7
Average Annual Benefit	N/A	\$7,625	\$33,186	\$35,318
<u>Beneficiaries</u>				
Number	7	8	6	5
Average Current Age	69.2	70.8	70.0	71.2
Average Annual Benefit	\$8,453	\$8,205	\$10,964	\$12,439
<u>Disability Retirees</u>				
Number	3	3	2	2
Average Current Age	62.1	63.1	61.2	62.2
Average Annual Benefit	\$15,535	\$15,535	\$17,873	\$17,873
<u>Terminated Vested</u>				
Number	91	106	114	122
Average Current Age <sup>1</sup>	47.3	46.8	50.9	51.2
Average Annual Benefit <sup>2</sup>	\$8,375	\$8,855	\$8,904	\$8,840

<sup>1</sup> Effective 10/1/2018, the Average Current Age excludes participants awaiting a refund of contributions.

<sup>2</sup> The Average Annual Benefit excludes participants awaiting a refund of contributions.

## AGE AND SERVICE DISTRIBUTION

### PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24	7	2										9
25 - 29	2	1	1			2						6
30 - 34		4		3	4	3	1					15
35 - 39	1	3	4	1	4	2	4					19
40 - 44		3	3	1		4	4	2	1			18
45 - 49	5	3	2	2	1	5	7	1		2		28
50 - 54	2	1		2	1	4	5	4	1		1	21
55 - 59	4	1	1		1	3	4	5	1	2		22
60 - 64				1		3	5		1	2		12
65+			1			3	2					6
<b>Total</b>	<b>21</b>	<b>18</b>	<b>12</b>	<b>10</b>	<b>11</b>	<b>29</b>	<b>32</b>	<b>12</b>	<b>4</b>	<b>6</b>	<b>1</b>	<b>156</b>

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2018	153
b. Terminations	
i. Vested (partial or full) with deferred annuity	(1)
ii. Vested in refund of member contributions only	(7)
iii. Refund of member contributions or full lump sum distribution received	(10)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(2)
f. DROP	<u>0</u>
g. Continuing participants	133
h. New entrants	<u>23</u>
i. Total active life participants in valuation	156

2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity) <u>Refund</u>	Vested (Due Refund) <u>Refund</u>	<u>Total</u>
a. Number prior valuation	61	5	6	2	55	59	188
Retired	6	(2)	0	0	(2)	0	2
DROP	0	0	0	0	0	0	0
Vested (Deferred Annuity)	0	0	0	0	1	0	1
Vested (Due Refund)	0	0	0	0	0	7	7
Hired/Terminated in Same Year	0	0	0	0	0	3	3
Death, With Survivor	0	0	0	0	0	0	0
Death, No Survivor	(1)	0	(1)	0	0	0	(2)
Disabled	0	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	(1)	(1)
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0
b. Number current valuation	66	3	5	2	54	68	198

SUMMARY OF CURRENT PLAN  
(Through Ordinance No. 19-09)

<u>Eligibility</u>	Full-time General Employees participate in the Plan as a condition of employment unless they have chosen to opt out and participate in the City's Defined Contribution Plan.
<u>Credited Service</u>	Total years and fractional parts of years of employment with the City as a General Employee.
<u>Salary</u>	Gross Compensation for services rendered to the City as a General Employee. Effective July 1, 2011, overtime is limited to 300 hours per calendar year. Additionally, accruals of unused sick and annual leave payments are not considered for benefit purposes after June 30, 2011.
<u>Average Final Compensation</u>	Average Salary for the 3 best years of the 10 years immediately preceding retirement or termination.
<u>Member Contributions</u>	2.5% of Salary, effective November 1, 2011.
<u>City Contributions</u>	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, F.S.
<u>Normal Retirement</u>	
Date	Earlier of: 1) age 62 with 5 years of Credited Service, 2) the completion of 30 years of Credited Service, regardless of age, or 3) the attainment of age 70, regardless of Credited Service.
Benefit	2.5% of Average Final Compensation for each year of Credited Service.
Form of Benefit	Life Annuity (options available).

### Early Retirement

Eligibility	Age 60 with 5 years of Credited Service.
Benefit	Accrued benefit, reduced 5% per year that the benefit commencement date precedes age 62.

### Vesting

Schedule	100% after 5 years of Credited Service.
Benefit Amount	Member will receive the vested portion of his (her) accrued benefit payable at the Early (reduced) or Normal Retirement Date.

### Disability

Eligibility	10 years of Credited Service.
Benefit	2.0% of Average Final Compensation for the first 20 years of Credited Service, plus 1.0% of Average Final Compensation for Credited Service in excess of 20 years.
Minimum Benefit	The greater of \$100 or 40% of Average Final Compensation.
Duration	Payable for life. Optional forms of payment are available.

### Death Benefits

Eligibility	5 years of Credited Service.
Benefit	Monthly accrued benefit payable to Designated beneficiary for 10 years at otherwise Early (reduced) or Normal (unreduced) Retirement Date.

Post-Retirement	Benefits payable to beneficiary in accordance with option selected at retirement.
-----------------	---

Deferred Retirement Option Plan

Eligibility	Satisfaction of Normal Retirement requirements.
Participation	Not to exceed 36 months, but may not participate past age 68.
Rate of Return	Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each Plan/Fiscal quarter, but not less than zero percent (0.0%)
Form of Distribution	Cash lump sum (options available) at termination of employment.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2019

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	970,659
Total Cash and Equivalents	970,659
Receivables:	
From Police Officers' & Firefighters' Trust Fund	46
Investment Income	68,001
Total Receivable	68,047
Investments:	
U. S. Bonds and Bills	2,223,445
Federal Agency Guaranteed Securities	287,617
Corporate Bonds	3,929,159
Stocks	13,295,686
Mutual Funds:	
Fixed Income	1,007,054
Equity	6,327,426
Pooled/Common/Commingled Funds:	
Real Estate	2,189,585
Total Investments	29,259,972
Total Assets	30,298,678
<u>LIABILITIES</u>	
Payables:	
Refunds of Member Contributions	3,340
Investment Expenses	14,605
Administrative Expenses	1,307
Total Liabilities	19,252
NET POSITION RESTRICTED FOR PENSIONS	30,279,426

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2019  
Market Value Basis

ADDITIONS

## Contributions:

Member	221,945	
City	1,172,985	
<b>Total Contributions</b>		<b>1,394,930</b>
 Investment Income:		
Net Increase in Fair Value of Investments	429,169	
Interest & Dividends	842,670	
Less Investment Expense <sup>1</sup>	(157,778)	
<b>Net Investment Income</b>		<b>1,114,061</b>
<b>Total Additions</b>		<b>2,508,991</b>

DEDUCTIONS

## Distributions to Members:

Benefit Payments	1,363,167	
Lump Sum DROP Distributions	63,018	
Lump Sum PLOP Distributions	32,951	
Refunds of Member Contributions	30,989	
<b>Total Distributions</b>		<b>1,490,125</b>
 Administrative Expense		 36,422
<b>Total Deductions</b>		<b>1,526,547</b>
<b>Net Increase in Net Position</b>		<b>982,444</b>
 <b>NET POSITION RESTRICTED FOR PENSIONS</b>		
Beginning of the Year		29,296,982
 End of the Year		 30,279,426

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

NOTES TO THE FINANCIAL STATEMENTS  
(For the Year Ended September 30, 2019)

*Plan Administration*

The City of Winter Garden Pension Plan for General Employees is a single- employer defined benefit pension plan administered by a Board of Trustees which acts as the administrator of the plan. The Board consists of 5 Trustees, 2 of whom are appointed by the City Commission, 2 of whom are members of the plan who are elected by a majority of the General Employees who are members of the plan and a fifth Trustee who is chosen by a majority of the first 4 Trustees.

*Plan Membership as of October 1, 2018:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	74
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	114
Active Plan Members	153
	341

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Winter Garden Pension Plan for General Employees Fund prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions: 2.5% of Salary, effective November 1, 2011.

City Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, F.S

**Investments**

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2019:

Asset Class	Target Allocation
Domestic Equity	45.0%
International Equity	15.0%
Broad Market Fixed Income	30.0%
Global Bond	5.0%
Real Estate	5.0%
Total	100.0%

*Concentrations:*

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

*Rate of Return:*

For the year ended September 30, 2019, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 3.83 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

Eligibility: Satisfaction of Normal Retirement requirements.

Participation: Not to exceed 36 months, but may not participate past age 68.

Rate of Return: Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each Plan/Fiscal quarter, but not less than zero percent (0.0%).

The DROP balance as September 30, 2019 is \$183,960.

## NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2019 were as follows:

Total Pension Liability	\$ 33,521,944
Plan Fiduciary Net Position	\$ (30,279,426)
Sponsor's Net Pension Liability	\$ 3,242,518
Plan Fiduciary Net Position as a percentage of Total Pension Liability	90.33%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.25%
Investment Rate of Return	7.25%

*Mortality Rate Healthy Active Lives:*

Female: RP2000 Generational, 100% White Collar Combined Healthy, Scale BB.  
 Male: RP2000 Generational, 50% White Collar Combined Healthy / 50% Blue Collar, Scale BB.

*Mortality Rate Healthy Inactive Lives:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.  
 Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.

*Mortality Rate Disabled Lives:*

Female: 100% RP2000 Disabled Female set forward two years.  
 Male: 100% RP2000 Disabled Male setback four years.

The assumed rates of mortality are mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2018 FRS actuarial valuation report for non-special risk lives. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated August 31, 2016.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2019 the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	7.50%
International Equity	8.50%
Broad Market Fixed Income	2.50%
Global Bond	3.50%
Real Estate	4.50%

## GASB 67

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.25 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	1% Decrease 6.25%	Current Discount Rate 7.25%	1% Increase 8.25%
Sponsor's Net Pension Liability	\$ 7,509,502	\$ 3,242,518	\$ (296,320)

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 10 Fiscal Years

	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	955,323	925,627	843,298
Interest	2,293,657	2,120,581	2,012,263
Changes of benefit terms	-	-	935,549
Differences between Expected and Actual Experience	336,696	726,207	(184,153)
Changes of assumptions	-	-	-
Contributions - Buy Back	-	-	71,923
Benefit Payments, including Refunds of Employee Contributions	(1,490,125)	(1,339,579)	(1,323,657)
Net Change in Total Pension Liability	2,095,551	2,432,836	2,355,223
Total Pension Liability - Beginning	31,426,393	28,993,557	26,638,334
Total Pension Liability - Ending (a)	<u>\$ 33,521,944</u>	<u>\$ 31,426,393</u>	<u>\$ 28,993,557</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,172,985	995,065	776,752
Contributions - Employee	221,945	208,326	205,137
Contributions - Buy Back	-	-	71,923
Net Investment Income	1,114,061	2,528,497	2,585,237
Benefit Payments, including Refunds of Employee Contributions	(1,490,125)	(1,339,579)	(1,323,657)
Administrative Expense	(36,422)	(37,430)	(40,070)
Net Change in Plan Fiduciary Net Position	982,444	2,354,879	2,275,322
Plan Fiduciary Net Position - Beginning	29,296,982	26,942,103	24,666,781
Plan Fiduciary Net Position - Ending (b)	<u>\$ 30,279,426</u>	<u>\$ 29,296,982</u>	<u>\$ 26,942,103</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 3,242,518</u>	<u>\$ 2,129,411</u>	<u>\$ 2,051,454</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	90.33%	93.22%	92.92%
Covered Payroll	\$ 8,814,930	\$ 8,322,284	\$ 8,134,647
Net Pension Liability as a percentage of Covered Payroll	36.78%	25.59%	25.22%

**Notes to Schedule:**

*Changes of benefit terms:*

For measurement date 09/30/2017, amounts reported as changes of benefit terms resulted from Ordinance No. 17-01 passed April 13, 2017 which amended the Normal and Early Retirement benefits.

The Normal Retirement eligibility requirements have been reduced from age 65 with 5 years of Credited Service to age 62 with 5 years of Credited Service. The alternative eligibility requirements of age 70 (regardless of years of Credited Service) or the completion of 30 years of Credited Service (regardless of age) remain unchanged.

Members terminating employment at the Early Retirement Date (age 60 with 5 years of Credited Service) have the option of deferring the accrued benefit to age 62 without an Early Retirement reduction, or immediate receipt of benefits, reduced 5% per year for each year benefits commence prior to age 62.

Ordinance No. 17-01 also established a Deferred Retirement Option Plan.

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	778,104	672,735	772,422
Interest	1,703,548	1,644,735	1,568,252
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(4,370)	(472,681)	-
Changes of assumptions	2,036,904	-	-
Contributions - Buy Back	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(1,189,918)	(1,087,969)	(1,284,131)
Net Change in Total Pension Liability	3,324,268	756,820	1,056,543
Total Pension Liability - Beginning	23,314,066	22,557,246	21,500,703
Total Pension Liability - Ending (a)	<u>\$ 26,638,334</u>	<u>\$ 23,314,066</u>	<u>\$ 22,557,246</u>
Plan Fiduciary Net Position			
Contributions - Employer	861,694	986,645	883,975
Contributions - Employee	196,288	166,914	164,064
Contributions - Buy Back	-	-	-
Net Investment Income	1,773,733	129,983	2,259,429
Benefit Payments, including Refunds of Employee Contributions	(1,189,918)	(1,087,969)	(1,284,131)
Administrative Expense	(32,228)	(41,173)	(24,454)
Net Change in Plan Fiduciary Net Position	1,609,569	154,400	1,998,883
Plan Fiduciary Net Position - Beginning	23,057,212	22,902,812	20,903,929
Plan Fiduciary Net Position - Ending (b)	<u>\$ 24,666,781</u>	<u>\$ 23,057,212</u>	<u>\$ 22,902,812</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,971,553</u>	<u>\$ 256,854</u>	<u>\$ (345,566)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	92.60%	98.90%	101.53%
Covered Payroll	\$ 7,808,002	\$ 6,617,337	\$ 6,562,550
Net Pension Liability as a percentage of Covered Payroll	25.25%	3.88%	-5.27%

**Notes to Schedule:***Changes of assumptions:*

For measurement date 09/30/2016, amounts reported as changes of assumptions was a result of the Experience Study dated August 31, 2016, the Board has adopted the following assumptions changes:

- Salary Increases
- Mortality Rates
- Normal and Early Retirement Rates
- Withdrawal Rates

Details of the above assumption changes can be found in the Actuarial Assumptions and Methods section of the 10/01/2016 Valuation report.

Additionally, the inflation assumption rate was lowered from 3.00% to 2.50%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 1,127,429	\$ 1,172,985	\$ (45,556)	\$ 8,814,930	13.31%
09/30/2018	\$ 972,043	\$ 995,065	\$ (23,022)	\$ 8,322,284	11.96%
09/30/2017	\$ 776,859	\$ 776,752	\$ 107	\$ 8,134,647	9.55%
09/30/2016	\$ 819,059	\$ 861,694	\$ (42,635)	\$ 7,808,002	11.04%
09/30/2015	\$ 986,645	\$ 986,645	\$ -	\$ 6,617,337	14.91%
09/30/2014	\$ 883,975	\$ 883,975	\$ -	\$ 6,562,550	13.47%

Notes to Schedule

Valuation Date: 10/01/2017

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Mortality:

*Healthy Active Lives:*

Female: RP2000 Generational, 100% White Collar, Scale BB.

Male: RP2000 Generational, 50% White Collar / 50% Blue Collar, Scale BB.

*Healthy Inactive Lives:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.

*Disabled Lives:*

Female: 100% RP2000 Disabled Female set forward two years.

Male: 100% RP2000 Disabled Male setback four years.

The assumed rates of mortality are mandated by Chapter 2015-157, Laws of Florida.

This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2016 FRS actuarial valuation report for non-special risk lives.

We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate:

7.25% per year, compounded annually, net of investment-related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Normal Retirement Rates:

<u>Years Following First Eligibility</u>	<u>Probability of Retirement</u>
0	60%
1-2	50%
3-6	20%
7+	100%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Early Retirement Rates:

<u>Age</u>	<u>Probability of Retirement</u>
60	5%
61-64	10%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

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Termination Rates:	Credited Service	Probability of Termination
		Less than 3
	3-6	12%
	7-24	6%
	25+	0%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Actuarial Value of Assets: The Actuarial Value of Assets utilizes a five-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased-in over a five-year period.

Cost of Living Adjustments: None

Payroll Increases: None

Funding Method: Entry Age Normal Actuarial Cost Method.

Amortization Method: Level Percentage of Pay, Closed.

Remaining Amortization Period: 19 Years (as of 10/01/2017).

Salary Increases:	Credited Service	Assumed Rate
		First Year
	1	5.75%
	2-4	5.50%
	5-9	5.25%
	10-14	5.00%
	15-24	4.50%
	25+	4.00%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Terminal Leave Pay:	Present Value of Retirement Liability		Percentage Increase to Liability (Hired After September 30, 2000)
	Liability	Percentage Increase of Liability (Hired Before October 1, 2000)	(Hired After September 30, 2000)
	Normal	6.0%	3.0%
	Early	3.0%	1.5%
	Vesting	3.0%	1.5%
	Death	3.0%	1.5%
	Disability	3.0%	1.5%

The assumed rates are based on data provided by the City. Also, no liability increases are utilized for Members hired after June 30, 2011.

Disability Rates:	Age	Probability of Disability
	20	0.07%
	25	0.09%
	30	0.11%
	35	0.14%
	40	0.19%
	45	0.30%
	50	0.51%
	55	0.96%
	60	1.66%
	65	0.00%

This assumption was reviewed in conjunction with an actuarial experience study as of September 30, 2007.

SCHEDULE OF INVESTMENT RETURNS  
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2019	3.83%
09/30/2018	9.44%
09/30/2017	10.55%
09/30/2016	7.76%
09/30/2015	0.58%
09/30/2014	10.97%

NOTES TO THE FINANCIAL STATEMENTS  
(For the Year Ended September 30, 2019)

General Information about the Pension Plan

*Plan Description*

The City of Winter Garden Pension Plan for General Employees is a single- employer defined benefit pension plan administered by a Board of Trustees which acts as the administrator of the plan. The Board consists of 5 Trustees, 2 of whom are appointed by the City Commission, 2 of whom are members of the plan who are elected by a majority of the General Employees who are members of the plan and a fifth Trustee who is chosen by a majority of the first 4 Trustees.

Full-time General Employees participate in the Plan as a condition of employment unless they have chosen to opt out and participate in the City’s Defined Contribution Plan.

*Plan Membership as of October 1, 2018:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	74
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	114
Active Plan Members	<u>153</u>
	<u><u>341</u></u>

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Winter Garden Pension Plan for General Employees Fund prepared by Foster & Foster Actuaries and Consultants.

Incorporated are the benefit changes for measurement date 09/30/2019 as noted under the Notes to Schedule of Changes in Net Pension Liability and Related Ratios.

*Contributions*

Member Contributions: 2.5% of Salary, effective November 1, 2011.

City Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, F.S

Net Pension Liability

The measurement date is September 30, 2019.

The measurement period for the pension expense was October 1, 2018 to September 30, 2019.

The reporting period is October 1, 2018 through September 30, 2019.

The Sponsor's Net Pension Liability was measured as of September 30, 2019.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.25%
Investment Rate of Return	7.25%

*Mortality Rate Healthy Active Lives:*

Female: RP2000 Generational, 100% White Collar Combined Healthy, Scale BB.

Male: RP2000 Generational, 50% White Collar Combined Healthy / 50% Blue Collar, Scale BB.

*Mortality Rate Healthy Inactive Lives:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.

*Mortality Rate Disabled Lives:*

Female: 100% RP2000 Disabled Female set forward two years.

Male: 100% RP2000 Disabled Male setback four years.

The assumed rates of mortality are mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2018 FRS actuarial valuation report for non-special risk lives. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated August 31, 2016.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2019 the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	45.0%	7.50%
International Equity	15.0%	8.50%
Broad Market Fixed Income	30.0%	2.50%
Global Bond	5.0%	3.50%
Real Estate	5.0%	4.50%
Total	100.0%	

**Discount Rate:**

The Discount Rate used to measure the Total Pension Liability was 7.25 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Balance at September 30, 2018	\$ 31,426,393	\$ 29,296,982	\$ 2,129,411
Changes for a Year:			
Service Cost	955,323	-	955,323
Interest	2,293,657	-	2,293,657
Differences between Expected and Actual Experience	336,696	-	336,696
Changes of assumptions	-	-	-
Changes of benefit terms	-	-	-
Contributions - Employer	-	1,172,985	(1,172,985)
Contributions - Employee	-	221,945	(221,945)
Net Investment Income	-	1,114,061	(1,114,061)
Benefit Payments, including Refunds of Employee Contributions	(1,490,125)	(1,490,125)	-
Administrative Expense	-	(36,422)	36,422
Net Changes	2,095,551	982,444	1,113,107
Balance at September 30, 2019	\$ 33,521,944	\$ 30,279,426	\$ 3,242,518

*Sensitivity of the Net Pension Liability to changes in the Discount Rate.*

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.25%	7.25%	8.25%
Sponsor's Net Pension Liability	\$ 7,509,502	\$ 3,242,518	\$ (296,320)

*Pension Plan Fiduciary Net Position.*

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

**PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED  
INFLOWS OF RESOURCES RELATED TO PENSIONS**

For the year ended September 30, 2019, the Sponsor will recognize a Pension Expense of \$1,785,120.

On September 30, 2019, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	615,626	46,038
Changes of assumptions	-	-
Net difference between Projected and Actual Earnings on Pension Plan investments	110,266	-
Total	\$ 725,892	\$ 46,038

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:			
2020	\$	121,056	
2021	\$	188,842	
2022	\$	168,916	
2023	\$	201,040	
2024	\$	-	
Thereafter	\$	-	

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 10 Fiscal Years

	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	955,323	925,627	843,298
Interest	2,293,657	2,120,581	2,012,263
Changes of benefit terms	-	-	935,549
Differences between Expected and Actual Experience	336,696	726,207	(184,153)
Changes of assumptions	-	-	-
Contributions - Buy Back	-	-	71,923
Benefit Payments, including Refunds of Employee Contributions	(1,490,125)	(1,339,579)	(1,323,657)
Net Change in Total Pension Liability	2,095,551	2,432,836	2,355,223
Total Pension Liability - Beginning	31,426,393	28,993,557	26,638,334
Total Pension Liability - Ending (a)	<u>\$ 33,521,944</u>	<u>\$ 31,426,393</u>	<u>\$ 28,993,557</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,172,985	995,065	776,752
Contributions - Employee	221,945	208,326	205,137
Contributions - Buy Back	-	-	71,923
Net Investment Income	1,114,061	2,528,497	2,585,237
Benefit Payments, including Refunds of Employee Contributions	(1,490,125)	(1,339,579)	(1,323,657)
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Plan Fiduciary Net Position - Ending (b)	<u>\$ 30,279,426</u>	<u>\$ 29,296,982</u>	<u>\$ 26,942,103</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 3,242,518</u>	<u>\$ 2,129,411</u>	<u>\$ 2,051,454</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	90.33%	93.22%	92.92%
Covered Payroll	\$ 8,814,930	\$ 8,322,284	\$ 8,134,647
Net Pension Liability as a percentage of Covered Payroll	36.78%	25.59%	25.22%

**Notes to Schedule:**

*Changes of benefit terms:*

For measurement date 09/30/2017, amounts reported as changes of benefit terms resulted from Ordinance No. 17-01 passed April 13, 2017 which amended the Normal and Early Retirement benefits.

The Normal Retirement eligibility requirements have been reduced from age 65 with 5 years of Credited Service to age 62 with 5 years of Credited Service. The alternative eligibility requirements of age 70 (regardless of years of Credited Service) or the completion of 30 years of Credited Service (regardless of age) remain unchanged.

Members terminating employment at the Early Retirement Date (age 60 with 5 years of Credited Service) have the option of deferring the accrued benefit to age 62 without an Early Retirement reduction, or immediate receipt of benefits, reduced 5% per year for each year benefits commence prior to age 62.

Ordinance No. 17-01 also established a Deferred Retirement Option Plan.

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	778,104	672,735	772,422
Interest	1,703,548	1,644,735	1,568,252
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(4,370)	(472,681)	-
Changes of assumptions	2,036,904	-	-
Contributions - Buy Back	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(1,189,918)	(1,087,969)	(1,284,131)
Net Change in Total Pension Liability	3,324,268	756,820	1,056,543
Total Pension Liability - Beginning	23,314,066	22,557,246	21,500,703
Total Pension Liability - Ending (a)	<u>\$ 26,638,334</u>	<u>\$ 23,314,066</u>	<u>\$ 22,557,246</u>
Plan Fiduciary Net Position			
Contributions - Employer	861,694	986,645	883,975
Contributions - Employee	196,288	166,914	164,064
Contributions - Buy Back	-	-	-
Net Investment Income	1,773,733	129,983	2,259,429
Benefit Payments, including Refunds of Employee Contributions	(1,189,918)	(1,087,969)	(1,284,131)
Administrative Expense	(32,228)	(41,173)	(24,454)
Net Change in Plan Fiduciary Net Position	1,609,569	154,400	1,998,883
Plan Fiduciary Net Position - Beginning	23,057,212	22,902,812	20,903,929
Plan Fiduciary Net Position - Ending (b)	<u>\$ 24,666,781</u>	<u>\$ 23,057,212</u>	<u>\$ 22,902,812</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,971,553</u>	<u>\$ 256,854</u>	<u>\$ (345,566)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	92.60%	98.90%	101.53%
Covered Payroll	\$ 7,808,002	\$ 6,617,337	\$ 6,562,550
Net Pension Liability as a percentage of Covered Payroll	25.25%	3.88%	-5.27%

**Notes to Schedule:**

*Changes of assumptions:*

For measurement date 09/30/2016, amounts reported as changes of assumptions was a result of the Experience Study dated August 31, 2016, the Board has adopted the following assumptions changes:

- Salary Increases
- Mortality Rates
- Normal and Early Retirement Rates
- Withdrawal Rates

Details of the above assumption changes can be found in the Actuarial Assumptions and Methods section of the 10/01/2016 Valuation report.

Additionally, the inflation assumption rate was lowered from 3.00% to 2.50%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 1,127,429	\$ 1,172,985	\$ (45,556)	\$ 8,814,930	13.31%
09/30/2018	\$ 972,043	\$ 995,065	\$ (23,022)	\$ 8,322,284	11.96%
09/30/2017	\$ 776,859	\$ 776,752	\$ 107	\$ 8,134,647	9.55%
09/30/2016	\$ 819,059	\$ 861,694	\$ (42,635)	\$ 7,808,002	11.04%
09/30/2015	\$ 986,645	\$ 986,645	\$ -	\$ 6,617,337	14.91%
09/30/2014	\$ 883,975	\$ 883,975	\$ -	\$ 6,562,550	13.47%

Notes to Schedule

Valuation Date: 10/01/2017

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Mortality:

*Healthy Active Lives:*

Female: RP2000 Generational, 100% White Collar, Scale BB.

Male: RP2000 Generational, 50% White Collar / 50% Blue Collar, Scale BB.

*Healthy Inactive Lives:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.

*Disabled Lives:*

Female: 100% RP2000 Disabled Female set forward two years.

Male: 100% RP2000 Disabled Male setback four years.

The assumed rates of mortality are mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2016 FRS actuarial valuation report for non-special risk lives. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate:

7.25% per year, compounded annually, net of investment-related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Normal Retirement Rates:

<u>Years Following First Eligibility</u>	<u>Probability of Retirement</u>
0	60%
1-2	50%
3-6	20%
7+	100%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Early Retirement Rates:

<u>Age</u>	<u>Probability of Retirement</u>
60	5%
61-64	10%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

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Termination Rates:	<u>Credited Service</u>	<u>Probability of Termination</u>
	Less than 3	18%
	3-6	12%
	7-24	6%
	25+	0%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Actuarial Value of Assets: The Actuarial Value of Assets utilizes a five-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased-in over a five-year period.

Cost of Living Adjustments: None  
 Payroll Increases: None  
 Funding Method: Entry Age Normal Actuarial Cost Method.  
 Amortization Method: Level Percentage of Pay, Closed.  
 Remaining Amortization Period: 19 Years (as of 10/01/2017).  
 Salary Increases:

<u>Credited Service</u>	<u>Assumed Rate</u>
First Year	6.00%
1	5.75%
2-4	5.50%
5-9	5.25%
10-14	5.00%
15-24	4.50%
25+	4.00%

This assumption was approved in conjunction with an actuarial experience dated August 31, 2016.

Terminal Leave Pay:	<u>Present Value of Retirement Liability</u>	<u>Percentage Increase of Liability (Hired Before October 1, 2000)</u>	<u>Percentage Increase to Liability (Hired After September 30, 2000)</u>
	Normal	6.00%	3.00%
	Early	3.00%	1.50%
	Vesting	3.00%	1.50%
	Death	3.00%	1.50%
	Disability	3.00%	1.50%

The assumed rates are based on data provided by the City. Also, no liability increases are utilized for Members hired after June 30, 2011.

Disability Rates:	<u>Age</u>	<u>Probability of Disability</u>
	20	0.07%
	25	0.09%
	30	0.11%
	35	0.14%
	40	0.19%
	45	0.30%
	50	0.51%
	55	0.96%
	60	1.66%
65	0.00%	

This assumption was reviewed in conjunction with an actuarial experience study as of September 30, 2007.

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

**The following information is not required to be disclosed but is provided for informational purposes.**

**COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2019**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Balance at September 30, 2018	\$ 2,129,411	\$ 1,181,271	\$ 1,360,153	\$ -
Total Pension Liability Factors:				
Service Cost	955,323	-	-	955,323
Interest	2,293,657	-	-	2,293,657
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	336,696	-	336,696	-
Current year amortization of experience difference	-	(141,667)	(265,726)	124,059
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(509,226)	509,226
Benefit Payments, including Refunds of Employee Contributions	(1,490,125)	-	-	-
Net change	<u>2,095,551</u>	<u>(141,667)</u>	<u>(438,256)</u>	<u>3,882,265</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,172,985	-	-	-
Contributions - Employee	221,945	-	-	(221,945)
Projected Net Investment Income	2,119,260	-	-	(2,119,260)
Difference between projected and actual earnings on Pension Plan investments	(1,005,199)	-	1,005,199	-
Current year amortization	-	(299,672)	(507,310)	207,638
Benefit Payments, including Refunds of Employee Contributions	(1,490,125)	-	-	-
Administrative Expenses	(36,422)	-	-	36,422
Net change	<u>982,444</u>	<u>(299,672)</u>	<u>497,889</u>	<u>(2,097,145)</u>
Balance at September 30, 2019	<u>\$ 3,242,518</u>	<u>\$ 739,932</u>	<u>\$ 1,419,786</u>	<u>\$ 1,785,120</u>

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 1,005,199	5	\$ 201,039	\$ 201,040	\$ 201,040	\$ 201,040	\$ 201,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (581,488)	5	\$ (116,298)	\$ (116,298)	\$ (116,298)	\$ (116,298)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (808,130)	5	\$ (161,626)	\$ (161,626)	\$ (161,626)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (108,740)	5	\$ (21,748)	\$ (21,748)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 1,531,356	5	\$ 306,271	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 207,638	\$ (98,632)	\$ (76,884)	\$ 84,742	\$ 201,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2016	\$ 2,036,904	4	\$ 509,226	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 509,226	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 336,696	4	\$ 84,174	\$ 84,174	\$ 84,174	\$ 84,174	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 726,207	4	\$ 181,552	\$ 181,552	\$ 181,552	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (184,153)	4	\$ (46,038)	\$ (46,038)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (4,370)	4	\$ (1,093)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (472,681)	5	\$ (94,536)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 124,059	\$ 219,688	\$ 265,726	\$ 84,174	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -