

CITY OF DAYTONA BEACH  
POLICE OFFICERS' AND FIREFIGHTERS' RETIREMENT SYSTEM  
ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2018  
CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2020  
GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2018



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

March 15, 2019

Board of Trustees  
c/o Ferrell Jenne, Plan Administrator  
City of Daytona Beach  
Police Officers' and Firefighters' Retirement System  
2503 Del Prado Blvd. S., Suite 502  
Cape Coral, FL 33904

Re: City of Daytona Beach Police Officers' and Firefighters' Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Daytona Beach Police Officers' and Firefighters' Retirement System. 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 Chapters 112, 175, and 185, 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 valuation, 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 Daytona Beach, 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, 2017. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2018 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 is familiar with the immediate and long-term aspects of pension valuations, and meets 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 Daytona Beach, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police Officers' and Firefighters' Retirement System. 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 me at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By:   
\_\_\_\_\_  
Bradley R. Heinrichs, FSA, EA, MAAA  
Enrolled Actuary #17-6901

By:   
\_\_\_\_\_  
Drew Ballard, EA, MAAA  
Enrolled Actuary #17-8193

Enclosures

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Daytona Beach Police Officers' and Firefighters' Retirement System, performed as of October 1, 2018, 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, 2020.

The contribution requirements, compared with those set forth in the October 1, 2017 actuarial valuation report as prepared by Nyhart, are as follows:

Valuation Date	10/1/2018	10/1/2017
Assumed City Contribution Date	10/1/2019	10/1/2018
Applicable to Fiscal Year Ending	<u>9/30/2020</u>	<u>9/30/2019</u>
Minimum Required Contribution	\$11,242,888	\$10,515,835
Member Contributions (Est.)	1,899,648	1,647,017
City And State Required Contribution	9,343,240	8,868,818
State Contribution (Est.) <sup>1</sup>	937,925	937,925
City Required Contribution	\$8,405,315	\$7,930,893

<sup>1</sup> Represents the amount received in calendar 2018. As per a Mutual Consent Agreement between the Membership and the City, all State Monies received each year will be available to offset the City's required contribution.

As you can see, the Minimum Required Contribution shows an increase when compared to the results determined in the October 1, 2017 actuarial valuation report. The increase is attributable to unfavorable plan experience on the basis of the plan's actuarial assumptions. Sources of unfavorable experience included an investment return of 5.99% (Actuarial Asset Basis) which fell short of the 7.50% assumption and a larger number of retirements than expected. These losses were offset in part by a gain associated with more inactive deaths than expected.

## 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 since the prior valuation.

In conjunction with this actuarial valuation, a fresh-start of the actuarial asset value has been implemented to be equal to the market value of assets. Effective October 1, 2018, the asset valuation method is such that all assets are valued at market value with an adjustment to uniformly spread investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period. The previous method projected an expected actuarial value of assets to the end of the year and the adjusted the value by 20% of the difference between the actuarial value and the market value. Since the previous method did not converge to the market value, the asset valuation method was changed to a method that will converge to the market value.

In addition, the previous valuation report did not include the value of the COLA fund in the assets or liabilities reported. This valuation includes the COLA fund in the asset values as well as in the liabilities.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Method <u>10/1/2018</u>	Old Method <u>10/1/2018</u>	<u>10/1/2017</u>
<b>A. Participant Data</b>			
Actives	320	320	300
Service Retirees	285	285	278
DROP Retirees	19	19	18
Beneficiaries	45	45	47
Disability Retirees	59	59	55
Terminated Vested	<u>67</u>	<u>67</u>	<u>28</u>
<b>Total</b>	<b>795</b>	<b>795</b>	<b>726</b>
Total Annual Payroll	\$17,644,463	\$17,644,463	\$17,606,731
Payroll Under Assumed Ret. Age	17,597,787	17,597,787	17,606,731
Annual Rate of Payments to:			
Service Retirees	12,474,180	12,474,180	11,930,524
DROP Retirees	1,055,542	1,055,542	953,910
Beneficiaries	725,206	725,206	746,865
Disability Retirees	1,602,356	1,602,356	1,474,401
Terminated Vested	220,052	220,052	178,382
<b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	184,817,431	184,747,206	178,150,964
Market Value (MVA) <sup>1</sup>	184,817,431	184,817,431	175,194,639
<b>C. Liabilities</b>			
<b>Present Value of Benefits</b>			
<b>Actives</b>			
Retirement Benefits	68,721,266	68,721,266	69,505,965
Disability Benefits	4,487,801	4,487,801	4,598,340
Death Benefits	1,122,145	1,122,145	2,081,343
Vested Benefits	4,285,624	4,285,624	4,416,696
Refund of Contributions	1,128,326	1,128,326	1,060,089
Service Retirees	152,522,833	152,522,833	146,970,581
DROP Retirees <sup>1</sup>	17,708,938	17,708,938	15,454,797
Beneficiaries	6,644,774	6,644,774	6,883,167
Disability Retirees	18,932,007	18,932,007	17,772,717
Terminated Vested	2,233,291	2,233,291	1,835,893
Share Plan Balances <sup>1</sup>	0	0	0
COLA Fund Reserve	<u>1,086,589</u>	<u>1,086,589</u>	<u>0</u>
<b>Total</b>	<b>278,873,594</b>	<b>278,873,594</b>	<b>270,579,588</b>

C. Liabilities - (Continued)	New Method <u>10/1/2018</u>	Old Method <u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	148,570,916	148,570,916	135,885,354
Present Value of Future Member Contributions	14,729,173	14,729,173	13,346,928
Normal Cost (Retirement)	2,401,544	2,401,544	3,254,740
Normal Cost (Disability)	306,547	306,547	0
Normal Cost (Death)	80,569	80,569	0
Normal Cost (Vesting)	302,031	302,031	0
Normal Cost (Refunds)	<u>191,223</u>	<u>191,223</u>	<u>0</u>
Total Normal Cost <sup>3</sup>	3,281,914	3,281,914	3,254,740
Present Value of Future Normal Costs	25,931,468	25,931,468	25,184,408
Accrued Liability (Retirement)	48,934,511	48,934,511	49,994,486
Accrued Liability (Disability)	2,001,774	2,001,774	2,758,944
Accrued Liability (Death)	444,837	444,837	817,855
Accrued Liability (Vesting)	2,216,764	2,216,764	2,516,259
Accrued Liability (Refunds)	215,808	215,808	390,481
Accrued Liability (Inactives) <sup>1</sup>	198,041,843	198,041,843	188,917,155
Share Plan Balances <sup>1</sup>	0	0	0
COLA Fund Reserve	<u>1,086,589</u>	<u>1,086,589</u>	<u>0</u>
Total Actuarial Accrued Liability (EAN AL)	252,942,126	252,942,126	245,395,180
Unfunded Actuarial Accrued Liability (UAAL)	68,124,695	68,194,920	67,244,216
Funded Ratio (AVA / EAN AL)	73.1%	73.0%	72.6%

D. Actuarial Present Value of Accrued Benefits	New Method <u>10/1/2018</u>	Old Method <u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	198,041,843	198,041,843	188,917,155
Actives	18,050,455	18,050,455	18,196,102
Member Contributions	<u>16,604,855</u>	<u>16,604,855</u>	<u>17,619,506</u>
Total	232,697,153	232,697,153	224,732,763
Non-vested Accrued Benefits	<u>8,280,782</u>	<u>8,280,782</u>	<u>7,366,982</u>
Total Present Value Accrued Benefits (PVAB)	240,977,935	240,977,935	232,099,745
Funded Ratio (MVA / PVAB)	76.7%	76.7%	75.5%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	0	0	
New Accrued Benefits	0	7,088,785	
Benefits Paid	0	(15,053,567)	
Interest	0	16,842,972	
Other	<u>0</u>	<u>0</u>	
Total	0	8,878,190	

	New Method	Old Method	
Valuation Date	10/1/2018	10/1/2018	10/1/2017
Applicable to Fiscal Year Ending	<u>9/30/2020</u>	<u>9/30/2020</u>	<u>9/30/2019</u>

E. Pension Cost

Normal Cost <sup>2</sup>	\$3,444,369	\$3,444,369	\$3,335,126
Administrative Expenses <sup>2</sup>	209,900	209,900	215,000
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2018) <sup>2</sup>	7,588,619	7,594,423	6,965,709
Minimum Required Contribution	11,242,888	11,248,692	10,515,835
Expected Member Contributions <sup>2</sup>	1,899,648	1,899,648	1,647,017
Expected City and State Contribution	9,343,240	9,349,044	8,868,818

F. Past Contributions

Plan Years Ending:	<u>9/30/2018</u>
City and State Requirement	8,685,382
Actual Contributions Made:	
Members (excluding buyback)	1,677,177
City	7,794,395
State	<u>937,925</u>
Total	10,409,497

G. Net Actuarial (Gain)/Loss 3,288,486

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2018 and 9/30/2017.

<sup>2</sup> Contributions developed as of 10/1/2018 displayed above have been adjusted to account for assumed salary increase components.

<sup>3</sup> Normal cost not provided by decrement in October 1, 2017 valuation report.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2018	68,124,695
2019	65,461,047
2020	62,597,625
2027	41,632,505
2034	26,530,680
2041	9,669,353
2048	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2018	3.46%	5.01%
Year Ended 9/30/2017	5.74%	4.95%
Year Ended 9/30/2016	7.06%	4.97%
Year Ended 9/30/2015	4.48%	4.95%
Year Ended 9/30/2014	2.20%	5.00%

(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 9/30/2018	7.68%	5.99%	7.50%
Year Ended 9/30/2017	9.56%	7.08%	7.50%
Year Ended 9/30/2016	7.46%	6.52%	7.50%
Year Ended 9/30/2015	-2.59%	6.33%	7.50%
Year Ended 9/30/2014	9.50%	8.30%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2018	\$17,597,787
	10/1/2008	18,118,000
(b) Total Increase		-2.87%
(c) Number of Years		10.00
(d) Average Annual Rate		-0.29%

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.



Bradley R. Heinrichs, FSA, EA, MAAA  
Enrolled Actuary #17-6901

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

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

Mr. Steve Bardin  
Municipal Police and Fire  
Pension Trust Funds  
Division of Retirement  
Post Office Box 3010  
Tallahassee, FL 32315-3010

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2017	\$67,244,216
(2) Sponsor Normal Cost developed as of October 1, 2017	1,607,723
(3) Expected administrative expenses for the year ended September 30, 2018	200,000
(4) Expected interest on (1), (2) and (3)	5,171,395
(5) Sponsor contributions to the System during the year ended September 30, 2018	8,732,320
(6) Expected interest on (5)	584,580
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2018 (1)+(2)+(3)+(4)-(5)-(6)	64,906,434
(8) Change to UAAL due to Method Change	(70,225)
(9) Change to UAAL due to Actuarial (Gain)/Loss	3,288,486
(10) Unfunded Actuarial Accrued Liability as of October 1, 2018	68,124,695

Type of Base	Date Established	Years Remaining	10/1/2018 Amount	Amortization Amount
Fresh Start Base	10/1/2004	7	15,529,482	2,727,415
Actuarial Gain	10/1/2005	18	(440,502)	(42,218)
Plan Amendments	10/1/2005	18	7,054,463	676,106
Actuarial Gain	10/1/2006	19	(535,793)	(50,046)
Actuarial Loss	10/1/2007	20	650,961	59,399
Plan Amendments	10/1/2007	20	9,720,040	886,940
Actuarial Loss	10/1/2008	21	3,865,121	345,270
Actuarial Loss	10/1/2009	22	4,450,659	389,948
Actuarial Loss	10/1/2010	23	171,445	14,758
Assump Change	10/1/2011	24	1,003,902	85,028
Actuarial Loss	10/1/2011	24	4,424,458	374,742
Plan Amendments	10/1/2011	24	(2,563,014)	(217,082)
Plan Amendments	10/1/2011	24	(1,528,853)	(129,490)
Actuarial Loss	10/1/2012	25	1,592,916	132,932
Method Change	10/1/2013	26	5,770,023	475,018
Actuarial Gain	10/1/2013	26	(1,327,072)	(109,251)
Assump Change	10/1/2013	26	(704,623)	(58,008)
Plan Amendments	10/1/2013	26	253,116	20,838
Actuarial Gain	10/1/2014	27	(1,658,332)	(134,829)
Actuarial Loss	10/1/2015	28	5,281,341	424,498
Assump Change	10/1/2016	29	6,684,070	531,605
Actuarial Loss	10/1/2016	29	5,210,454	414,404
Actuarial Loss	10/1/2017	29	2,002,172	159,239
Actuarial Loss	10/1/2018	30	3,288,486	259,014
Method Change	10/1/2018	30	<u>(70,225)</u>	<u>(5,531)</u>
			68,124,695	7,230,699

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2017	\$67,244,216
(2) Expected UAAL as of October 1, 2018	64,906,434
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	2,675,425
Salary Increases	(740,815)
Active Decrements	2,096,399
Inactive Mortality	(759,505)
Other	<u>16,982</u>
Increase in UAAL due to (Gain)/Loss	3,288,486
Method Changes	<u>(70,225)</u>
(4) Actual UAAL as of October 1, 2018	\$68,124,695

## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

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

**Male:** RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB

#### *Healthy Inactive Lives:*

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

**Male:** RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB

#### *Disabled Lives:*

**Female:** 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale

**Male:** 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale

The above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2018 FRS valuation report for special risk employees. This assumption sufficiently accommodates future mortality improvements.

75% of active deaths are assumed to be service-incurred.

### Interest Rate

7.50% 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 Increase Rates

2.75% per year inflation plus seniority/merit scale using the following rates:

<u>Age</u>	<u>Rate (%)</u>	<u>Age</u>	<u>Rate (%)</u>
20	3.0	40	2.0
25	3.0	45	1.0
30	2.5	50	0.0
35	2.5	55	0.0

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

\$200,000 annually.

Retirement Rates

After First Eligibility for Normal Retirement	Police %	Fire %
0	35	25
1 – 9	20	15
10	100	100

At age 60, the retirement rate is 100%.

Disability Rates

Age	Rate (%)	Age	Rate (%)
20	0.14	40	0.30
25	0.15	45	0.51
30	0.18	50	1.00
35	0.23	55	1.50

No disability rates are assumed after 25 years of service. 75% of disabilities are assumed to be service connected. There are no assumed rates of recovery.

Service-connected disability benefits for active employees are assumed to be offset by the greater of 2/3 of AFC or the current Florida weekly wages projected by 2.0% inflation (based on Florida Statute 440.12)

Current worker’s compensation offsets are assumed to continue in the future.

Withdrawal Rates

Age	Police (%)	Fire (%)
20	16.80	7.47
25	13.20	5.87
30	8.64	3.84
35	5.76	2.56
40	3.36	1.49
45	2.22	0.99
50	1.92	0.85
55	0.72	0.32

No withdrawal rates are assumed after 25 years of service. Employees are assumed to take a refund of contributions if not vested upon termination. If vested upon termination, monthly benefits are assumed to commence at age 52.

Cost of Living Adjustments

The following COLA percentages are assumed at retirement:

Police Officers

<u>Service as of September 30, 2011</u>	<u>COLA %</u>
Less than 5 years	1.0
Greater than 5, less than 15	1.5
Greater than 15	2.0

Firefighters

<u>Service as of September 18, 2012</u>	<u>COLA %</u>
Less than 5 years	1.0
Greater than 5, less than 15	1.5
Greater than 15	2.0

Marital Assumptions

80% of employees are assumed to be married and males are assumed to be 3 years older than females.

Actuarial Cost Method

Entry Age Cost Method. To determine the minimum required contribution, a 4.95% load was applied to adjust to the following fiscal year. Member contributions are further adjusted by 3.75% to account for a half a year of interest.

Asset Valuation Method

All assets are valued at market value with an adjustment to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period. Previously, the prior actuarial value of assets was based on a 20% Write-up Method.

Amortization Method

Level dollar 30-year closed period. Bases previously established after October 1, 2004 and prior to October 1, 2013 are re-amortized over the remainder of the 30-year period from establishment (as approved by the State)

Experience Study

The last experience study was performed by Nyhart on July 22, 2015 covering the period 2009 through 2014. The retirement and termination rates were based on this study.

## GLOSSARY

Total Annual Payroll is the projected annual rate of pay for the fiscal year beginning on 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.

Individual Entry Age Normal Actuarial Cost Method (Level Percent of Compensation) is the method used to determine required contributions under the Plan. The use of this method involves the systematic funding of the Normal Cost (described above) and the Unfunded Accrued (Past Service) Liability. The actuarial accrued liability for active participants is the difference between the present value of future benefits and the present value of future Normal Costs. The actuarial accrued liability for inactive participants is the present value of future benefits.

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.

## HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	475,812.26	_____%
1999	523,970.51	10.1%
2000	574,246.02	9.6%
2001	538,123.35	-6.3%
2002	615,255.80	14.3%
2003	674,312.52	9.6%
2004	734,461.77	8.9%
2005	772,862.51	5.2%
2006	809,080.10	4.7%
2007	956,355.70	18.2%
2008	989,349.33	3.4%
2009	804,171.97	-18.7%
2010	775,103.16	-3.6%
2011	755,346.11	-2.5%
2012	791,942.28	4.8%
2013	785,387.76	-0.8%
2014	845,038.62	7.6%
2015	919,408.94	8.8%
2016	903,454.66	-1.7%
2017	813,174.67	-10.0%
2018	937,925.10	15.3%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Cash Equivalents	3,887,456.00	3,887,456.00
Cash	268.37	268.37
Total Cash and Equivalents	3,887,724.37	3,887,724.37
Receivables:		
Member Contributions in Transit	29,990.18	29,990.18
Member Buy-Back Contributions	726.57	726.57
State Contributions	937,925.10	937,925.10
From Broker for Investments Sold	131,443.92	131,443.92
Investment Income	52,315.27	52,315.27
Total Receivable	1,152,401.04	1,152,401.04
Investments:		
Equities	82,218,544.43	112,853,094.82
Pooled/Common/Commingled Funds:		
Fixed Income	21,054,758.65	20,777,133.54
Equity	17,988,092.52	29,605,675.17
Real Estate	17,710,742.94	16,896,805.85
Total Investments	138,972,138.54	180,132,709.38
Total Assets	144,012,263.95	185,172,834.79
<u>LIABILITIES</u>		
Payables:		
Investment Expenses	277,741.12	277,741.12
Administrative Expenses	37,823.97	37,823.97
To Broker for Investments Purchased	39,838.45	39,838.45
Total Liabilities	355,403.54	355,403.54
NET POSITION RESTRICTED FOR PENSIONS	143,656,860.41	184,817,431.25

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2018  
Market Value Basis

ADDITIONS

Contributions:			
Member		1,677,177.21	
Buy-Back		39,149.81	
City		7,794,395.00	
State		937,925.10	
Total Contributions			10,448,647.12
Investment Income:			
Net Realized Gain (Loss)	4,219,525.99		
Unrealized Gain (Loss)	7,837,134.61		
Net Increase in Fair Value of Investments		12,056,660.60	
Interest & Dividends		2,404,255.90	
Less Investment Expense <sup>1</sup>		(859,815.21)	
Net Investment Income			13,601,101.29
Total Additions			24,049,748.41

DEDUCTIONS

Distributions to Members:			
Benefit Payments		14,238,780.22	
Lump Sum DROP Distributions		558,523.18	
Lump Sum PLOP Distributions		126,853.41	
Refunds of Member Contributions		129,410.31	
Total Distributions			15,053,567.12
Administrative Expense			382,480.04
Total Deductions			15,436,047.16
Net Increase in Net Position			8,613,701.25
<b>NET POSITION RESTRICTED FOR PENSIONS</b>			
Beginning of the Year			176,203,730.00
End of the Year			184,817,431.25

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

ACTUARIAL ASSET VALUATION  
September 30, 2018

Actuarial Assets for funding purposes are developed by recognizing 20% of the total actuarial investment gain or loss for the current Plan Year. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

	<u>Development of Investment Gain/(Loss)</u>
Market Value of Assets, 09/30/2017	176,203,730
Actuarial Value of Assets, 09/30/2017	179,160,055
Contributions Less Benefit Payments & Admin Expenses	(4,987,400)
Expected Investment Earnings on Actuarial Value*	13,249,977
Actual Net Investment Earnings	13,601,101
2018 Actuarial Investment Gain/(Loss)	<u>351,124</u>

\*Expected Investment Earnings = 0.075 \* [179,160,055 + 0.5 \* (4,987,400)]

	<u>Development of Actuarial Value of Assets</u>
(1) Market Value of Assets, 09/30/2018	184,817,431
(2) Gains/(Losses) Not Yet Recognized (20% of difference)	70,225
(3) Actuarial Value of Assets, 09/30/2018, (1) - (2)	<u>184,747,206</u>
(A) 09/30/2017 Actuarial Assets:	179,160,055
(I) Net Investment Income:	
1. Interest and Dividends	2,404,256
2. Realized Gains (Losses)	4,219,526
3. Change in Actuarial Value	4,810,585
4. Investment Expenses	(859,815)
Total	<u>10,574,551</u>
(B) 09/30/2018 Actuarial Assets:	184,747,206
Actuarial Asset Rate of Return = 2I/(A+B-I):	5.99%
Market Value of Assets Rate of Return:	7.68%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(2,675,425)
10/01/2018 Limited Actuarial Assets <sup>1</sup> :	184,747,206

<sup>1</sup> Due to the asset method change, the Actuarial Value of Assets reflected in this valuation is \$184,817,431.25.

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2018  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	1,677,177.21	
Buy-Back	39,149.81	
City	7,794,395.00	
State	937,925.10	
 Total Contributions		 10,448,647.12
Earnings from Investments:		
Interest & Dividends	2,404,255.90	
Net Realized Gain (Loss)	4,219,525.99	
Change in Actuarial Value	4,810,584.81	
 Total Earnings and Investment Gains		 11,434,366.70

EXPENDITURES

Distributions to Members:		
Benefit Payments	14,238,780.22	
Lump Sum DROP Distributions	558,523.18	
Lump Sum PLOP Distributions	126,853.41	
Refunds of Member Contributions	129,410.31	
 Total Distributions		 15,053,567.12
Expenses:		
Investment related <sup>1</sup>	859,815.21	
Administrative	382,480.04	
 Total Expenses		 1,242,295.25
 Change in Net Assets for the Year		 5,587,151.45
 Net Assets Beginning of the Year <sup>2</sup>		 179,160,055.00
 Net Assets End of the Year <sup>3</sup>		 184,747,206.45

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

<sup>2</sup>Net Assets, including COLA fund. Per auditors, COLA fund is instead accounted for in the liabilities of the Plan.

<sup>3</sup>Net Assets may be limited for actuarial consideration. Due to the asset method change, the Actuarial Value of Assets reflected in this valuation is \$184,817,431.25.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2017 to September 30, 2018

Beginning of the Year Balance	1,983,497.00
Plus Additions	1,336,997.23
Investment Return Earned	159,803.40
Less Distributions	(558,523.18)
End of the Year Balance	2,921,774.45

COLA FUND ASSETS AND CALCULATION OF CURRENT YEAR TRANSFER

Cumulative Actuarial (Gain)/Loss from October 1, 2011

<u>Date</u>	<u>10/1/2018 Remaining Balance</u>
10/1/2012	\$1,592,916
10/1/2013	(1,327,072)
10/1/2014	(1,658,332)
10/1/2015	5,281,341
10/1/2016	5,210,454
10/1/2017	2,002,172
10/1/2018	<u>3,288,486</u>
Cumulative (Gain)/Loss	\$14,389,965

Calculation of COLA Transfer

(a) Preliminary Actual Actuarial Value of Assets Rate of Return	5.99%
(b) Excess Return over Expected 7.5% (limited to 3.0%)	0.00%
(c) Expected Return	\$13,249,977
(d) Actuarial Asset Dollar Return	N/A
(e) Excess Dollar Return over Expected (d) - (c)	N/A
(f) Preliminary COLA Transfer (50% x (e))	N/A
(g) Cumulative Actuarial (Gain)/Loss From October 1, 2011	<u>14,389,965</u>
(h) Final COLA Transfer (lesser of (f) and (g), but not less than \$0)	N/A

Final Actuarial Value of Assets

(a) Preliminary Actuarial Value of Assets	\$184,817,431
(b) Present Value of COLA Transfer, discounted at 7.5%	0
(c) Final Actuarial Value of Assets ((a) - (b))	\$184,817,431
(d) Rate of Return on Final Actuarial Value of Assets	5.99%

Reconciliation of COLA Fund Assets

(a) COLA Fund Assets, beginning of year	\$1,009,091
(b) Distributions	0
(c) Investment Return (Market Value Basis)	77,498
(d) Asset Transfers	<u>0</u>
(e) COLA Fund Assets, end of year	\$1,086,589

## STATISTICAL DATA

	<u>10/1/2015</u>	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>
<u>Actives</u>				
Number	N/A	N/A	300	320
Average Current Age	N/A	N/A	37.4	35.9
Average Age at Employment	N/A	N/A	N/A	27.2
Average Past Service	N/A	N/A	10.3	8.7
Average Annual Salary	N/A	N/A	\$55,894	\$55,139
<u>Service Retirees</u>				
Number	N/A	N/A	278	285
Average Current Age	N/A	N/A	63.4	63.8
Average Annual Benefit	N/A	N/A	\$42,916	\$43,769
<u>DROP Retirees</u>				
Number	N/A	N/A	18	19
Average Current Age	N/A	N/A	52.1	52.4
Average Annual Benefit	N/A	N/A	\$52,995	\$55,555
<u>Beneficiaries</u>				
Number	N/A	N/A	47	45
Average Current Age	N/A	N/A	73.4	74.7
Average Annual Benefit	N/A	N/A	\$15,891	\$16,116
<u>Disability Retirees</u>				
Number	N/A	N/A	55	59
Average Current Age	N/A	N/A	58.0	57.4
Average Annual Benefit	N/A	N/A	\$26,807	\$27,159
<u>Terminated Vested</u>				
Number	N/A	N/A	28	67
Average Current Age <sup>1</sup>	N/A	N/A	33.8	42.9
Average Annual Benefit <sup>2</sup>	N/A	N/A	\$25,483	\$22,005

<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	1	0	0	0	0	0	0	0	0	0	0	1
20 - 24	12	8	7	5	0	0	0	0	0	0	0	32
25 - 29	19	6	10	6	7	4	0	0	0	0	0	52
30 - 34	10	4	4	9	8	22	10	0	0	0	0	67
35 - 39	5	3	1	3	3	11	24	8	0	0	0	58
40 - 44	0	1	0	0	2	3	19	28	2	0	0	55
45 - 49	1	1	0	0	1	0	7	14	6	1	0	31
50 - 54	1	0	0	0	0	2	2	9	4	1	0	19
55 - 59	0	0	0	0	1	0	1	0	2	0	0	4
60 - 64	0	0	0	0	0	0	1	0	0	0	0	1
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	49	23	22	23	22	42	64	59	14	2	0	320

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2017	300
b. Terminations	
i. Vested (partial or full) with deferred benefits	(15)
ii. Non-vested or full lump sum distribution received	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	(4)
e. Retired	(6)
f. DROP	(5)
g. Data Corrections	<u>(1)</u>
h. Continuing participants	269
i. New entrants	<u>51</u>
j. Total active life participants in valuation	320

### 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 <u>Deferred</u>	<u>Total</u>
a. Number prior valuation	278	18	47	55	28	426
Retired	12	(5)	0	0	(1)	6
DROP	0	5	0	0	0	5
Vested Deferred	0	0	0	0	15	15
Death, With Survivor	(1)	0	2	(1)	0	0
Death, No Survivor	(3)	0	(3)	0	0	(6)
Disabled	0	0	0	5	(1)	4
Refund of Contributions	0	0	0	0	(2)	(2)
Rehires	0	0	0	0	(1)	(1)
Expired Annuities	0	0	(1)	0	0	(1)
Data Corrections	(1)	1	0	0	29	29
b. Number current valuation	285	19	45	59	67	475

## SUMMARY OF CURRENT PLAN

<u>Plan Status</u>	Plan established in 1959 under the Code of Ordinances for the City of Daytona Beach, Florida, Subpart C Sections 1-35 & Subpart D Sections 1-28 and was most recently amended to change the maximum period of DROP to 60 months under Ordinance No. 14-228 and allow Firefighter Members not yet in DROP to participate under Ordinance No. 14-227, both passed and adopted on August 6, 2014.
<u>Eligibility</u>	Police Officers and Firefighters actively employed full-time by the City are Members of the Retirement System.
<u>Credited Service</u>	<p>Credited Service means the total number of years and fractional parts of years of service as a Police Officer or Firefighter with Member contributions, when required, omitting intervening years or fractional parts of years when such Member was not employed by the City as a Police Officer or Firefighter. Credited Service includes service purchased from a prior period of employment as a public safety officer, purchased military service, and qualified military service under USERRA.</p> <p>Leave conversions of unused accrued paid time off shall not be permitted to be applied toward the accrual of Credited Service either during each Plan Year of a Member's employment with the City or in the Plan Year in which the Member terminates employment.</p>
<u>Base Pay</u>	<p>Base Pay means the established rate of annual or monthly Compensation including up to the first seventy-five (75) hours annually of overtime paid during the Plan Year. Base Pay excludes bonuses, career development, supplemental, overtime over the first seventy-five (75) hours annually of overtime paid, shift differential, uniform subsistence, travel, bonus, and other similar pay.</p> <p>Effective prospectively beginning October 1, 2006 for Police Officers, Base Pay includes up to 300 hours annually of overtime paid during the Plan Year.</p>
<u>Compensation</u>	Compensation means the Member's Base Pay as indicated in the pay plan.
<u>Average Final Compensation (AFC)</u>	Average Final Compensation mean the average of the annual Base Pay received during the highest three (3) years of Credited Service.

Monthly Accrued Benefit

Police Officers

*Eligible for Normal Retirement on September 30, 2011:*

AFC multiplied by 3.38% per year of Credited Service

*Not Eligible for Normal Retirement on September 30, 2011:*

AFC multiplied by 3.38% per year of Credited Service before September 30, 2011 and 3.0% per year of Credited Service after September 30, 2011. The maximum benefit is 90% of AFC.

Firefighters

*Eligible for Normal Retirement on September 18, 2012:*

AFC multiplied by 3.50% per year of Credited Service

*Not Eligible for Normal Retirement on September 18, 2012:*

AFC multiplied by 3.50% per year of Credited Service before September 18, 2012 and 3.0% per year of Credited Service after September 18, 2012. The maximum benefit is 90% of AFC.

Firefighters Supplement

Effective December 1, 2010, \$8.50 per month for each year of Credited Service up to a maximum of \$215 per month.

Member Contributions

Police Officers are required to contribute 10.0% of Compensation and Firefighters contribute 9.7% of Compensation. Member Contributions accrue interest at 6.0% per year for the period October 1, 1997 through October 1, 2017 and 1.0% per year thereafter.

State Contributions

State premium tax revenue under Chapter 175/185 received annually is used to offset required contributions.

Normal Retirement

Date

Earlier of:

- (1) Age 55 with 10 or more years of service, or
- (2) 20 years of service for Members hired before August 6, 2014 and 25 years of service for Members hired on or after August 6, 2014

Benefit

Monthly Accrued Benefit

Maximum Benefit

\$5,500 per month. The Maximum Benefit does not apply for Police Officers Members as of September 30, 2011 whose Compensation exceeded \$73,333.33 for the fiscal year ending September 30, 2010 or Firefighters Members as of September 18, 2012 whose Compensation exceeded \$73,333.33 for the fiscal year ending September 30, 2012.

Early Retirement

Date	Age 50 with 10 or more years of service
Benefit	Monthly Accrued Benefit deferred to Normal Retirement Date or immediate commencement with reduction of 3.0% per year prior to Normal Retirement date. Normal Retirement Date is determined as the date on what would have been the Normal Retirement Date had employment continued as a Police Officer or Firefighter.

Vesting

Schedule	100% after 10 years of Credited Service.
Benefit Amount	<p>Members that terminate employment with 10 or more years of service, the Monthly Accrued Benefit is payable at age 52. A vested Member may request a refund of Accumulated Contributions but would not be entitled to any further benefits under the plan.</p> <p>Members that terminate employment with less than 10 years of service will be eligible to receive a refund of Member contributions with interest. Members may voluntarily leave contributions in the Plan for a period of five years after separation and receive service credit upon rehire within the five-year period. If a Member who is not vested and is not reemployed within five (5) years, Accumulated Contributions will be automatically be returned if \$1,000 or less. Accumulated Contributions that are more than \$1,000 will be returned only upon the written request of the Member.</p>

Disability – Service Incurred

Eligibility	Permanent and totally disabled in the line of duty.								
Benefit	<p><i>Police Officers:</i> AFC multiplied by 3.0% per year of Credited Service (to a maximum of 90% of AFC)</p> <p><i>Firefighters:</i> AFC multiplied by 3.5% per year of Credited Service (to a maximum of 90% of AFC)</p>								
Minimum Benefit	<p>The minimum amount of disability benefit paid:</p> <table><thead><tr><th><u>Credited Service</u></th><th><u>% of AFC</u></th></tr></thead><tbody><tr><td>0 – 9</td><td>50%</td></tr><tr><td>10 – 14</td><td>60%</td></tr><tr><td>15+</td><td>75%</td></tr></tbody></table>	<u>Credited Service</u>	<u>% of AFC</u>	0 – 9	50%	10 – 14	60%	15+	75%
<u>Credited Service</u>	<u>% of AFC</u>								
0 – 9	50%								
10 – 14	60%								
15+	75%								
Workers' Compensation Offset	The disability benefit is reduced for workers' compensation benefits pursuant to Florida Statute, Chapter 440 for the same disability. In no event shall the disability pension benefit be reduced below the greater of 42% of AFC or AFC multiplied by 3.0% per year of Credited Service.								

Disability - Non-Service Incurred

Eligibility	After 5 or more years of Credited Service, permanent and totally disabled not in the line of duty.
Benefit	<i>Police Officers:</i> AFC multiplied by 3.0% per year of Credited Service (to a maximum of 90% of AFC)  <i>Firefighters:</i> AFC multiplied by 3.5% per year of Credited Service (to a maximum of 90% of AFC)
Minimum Benefit	The minimum amount of disability benefit paid:

<u>Credited Service</u>	<u>% of AFC</u>
5 – 9	37.5%
10 – 19	50.0%

Death Benefits – Service Connected

Eligibility	Death, injury, illness or disease resulting in death as the result of the performance of duty in the service of the City.
Benefit	50% of Average Final Compensation payable to the spouse. If no surviving spouse, 25% of Average Final Compensation payable to each child until the attainment of age 18, with a maximum of 50% of Average Final Compensation. If no surviving spouse or children, 50% of the Average Final Compensation payable to dependent parents.

Death Benefits - Nonservice Connected

Eligibility	After 5 or more years of Credited Service, death, injury, illness or disease resulting in death not as the result of the performance of duty in the service of the City.
Benefit	50% of the nonservice connected disability benefit payable to the spouse. If no surviving spouse, 25% of nonservice connected disability benefit payable to each child until the attainment of age 18, with a maximum of 50% of nonservice connected disability benefit.

Minimum Pre-Retirement Death Benefit

Death prior to Vesting	Refund of Member Contributions.
Death after Vesting	The surviving spouse may elect to receive the Monthly Accrued Benefit immediately, at early retirement, or at normal retirement for a period of 10 years. For non-spousal beneficiaries, the benefit will begin, for a period of 10 years, on the December 31 of the calendar year following the calendar year of the date of death. The Monthly Accrued Benefit will be adjusted for early commencement and further adjusted actuarially for commencement prior to early retirement date.

Minimum Pre-Retirement Death Benefit (Continued)

Death after Retirement Eligible      The spouse may elect to receive the Monthly Accrued Benefit immediately or at normal retirement for a period of 10 years. For non-spousal beneficiaries, the benefit will begin on the first of the month following the date of death for a period of 10 years. The Monthly Accrued Benefit will be adjusted for early commencement.

Share Plan

Pursuant to Chapter 2015-39, Laws of Florida, a supplemental benefit component for special benefits exists but is currently not funded as the City and Membership mutually consented to allow the City use of all future State Monies.

Deferred Retirement Option Plan (“DROP”)

Eligibility      A Member may elect to enter the DROP upon reaching normal retirement date.

Participation      Members may participate for a maximum of 60 months.

Rate of Return      DROP accounts are credited on each October 1<sup>st</sup> with the net investment return of the Retirement System, with a minimum rate of 1.0% and a maximum rate of 6.5%.

Distribution      Lump sum and/or rollover to qualified retirement plan(s) at termination of employment.

Normal Form of Payment

Ten Year Certain and Life Annuity

Optional Forms of Payment

Actuarial Equivalence      Interest rate: 6.5%

Member Mortality Table: RP 2000 Group Annuity Table for males projected to 2010

Beneficiary Mortality Table: RP 2000 Group Annuity Table for females projected to 2010

Forms of Payment      50%, 66 2/3%, and 75% Joint and Contingent Survivor Annuity, reducing upon the death of the Member

50%, 66 2/3%, 75%, and 100% Joint and Last Survivor Annuity, reducing upon the death of either the Member or Beneficiary

Social Security Level Income Annuity

Partial Lump Sum of 5%, 10%, 20%, and 25%, with the remaining lump sum value paid as an annuity under the Normal Form or Optional Forms of Payment above

Cost of Living Adjustment (“COLA”)

Grandfathered Eligibility	Police Officers Members as of September 30, 2011 and Firefighter Members as of September 19, 2012, who are (1) actively employed and eligible for Normal Retirement, (2) Retired, (3) participating in DROP, or (4) otherwise inactive.
Grandfathered Benefit	2.0% per year beginning on the first day of the month following 6 years of retirement and each year thereafter
Eligibility	Police Officers Members as of September 30, 2011 and Firefighter Members as of September 19, 2012, who are actively employed and not eligible for Normal Retirement.
Benefit	1.0% per year beginning on the first day of the month following 6 years of retirement and each year thereafter. Beginning October 2, 2012, a COLA Fund is established and funded by a percent of excess investment return on the actuarial value of assets. The amount transferred to the COLA fund is equal to 50% of the first 3.0% of excess return subject to the main Fund remaining in a net positive experience position determined on a cumulative basis form October 1, 2011.
Maximum COLA	The accumulated increases in COLA shall not exceed \$1,500 per month. The \$1,500 per month maximum is subject to the following reductions: <ul style="list-style-type: none"><li>• Partial lump sum payments</li><li>• Joint and survivor factors</li><li>• Early retirement benefits</li><li>• Reduction to joint and survivor options upon death</li></ul>

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Cash Equivalents	3,887,456
Cash	268
Total Cash and Equivalents	3,887,724
Receivables:	
Member Contributions in Transit	29,990
Member Buy-Back Contributions	727
State Contributions	937,925
From Broker for Investments Sold	131,444
Investment Income	52,315
Total Receivable	1,152,401
Investments:	
Equities	112,853,095
Pooled/Common/Commingled Funds:	
Fixed Income	20,777,134
Equity	29,605,675
Real Estate	16,896,806
Total Investments	180,132,710
Total Assets	185,172,835
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	277,741
Administrative Expenses	37,824
To Broker for Investments Purchased	39,839
Total Liabilities	355,404
NET POSITION RESTRICTED FOR PENSIONS	184,817,431

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2018  
Market Value Basis

ADDITIONS

## Contributions:

Member	1,677,177	
Buy-Back	39,150	
City	7,794,395	
State	937,925	
<b>Total Contributions</b>		<b>10,448,647</b>
<b>Investment Income:</b>		
Net Increase in Fair Value of Investments	12,056,660	
Interest & Dividends	2,404,256	
Less Investment Expense <sup>1</sup>	(859,815)	
<b>Net Investment Income</b>		<b>13,601,101</b>
<b>Total Additions</b>		<b>24,049,748</b>

DEDUCTIONS

## Distributions to Members:

Benefit Payments	14,238,780	
Lump Sum DROP Distributions	558,523	
Lump Sum PLOP Distributions	126,854	
Refunds of Member Contributions	129,410	
<b>Total Distributions</b>		<b>15,053,567</b>
Administrative Expense		382,480
<b>Total Deductions</b>		<b>15,436,047</b>
<b>Net Increase in Net Position</b>		<b>8,613,701</b>

## NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year		175,194,639
COLA Fund Account		1,009,091
<b>End of the Year</b>		<b>184,817,431</b>

<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, 2018)

Plan Description

*Plan Administration*

The Plan is a single-employer defined benefit pension plan administered by the Police and Fire Pension Board, appointed by the City Commission.

*Plan Membership as of October 1, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	398
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	28
Active Plan Members	300
	726

*Benefits Provided*

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

Accrual of Benefits:

Retirement:

For Police Officer members not Eligible for Normal Retirement as of September 30, 2011:

3% of Average Final Compensation for each year of Credited Service after September 30, 2011 and 3.38% of Average Final Compensation for each year of Credited Service before September 30, 2011 maximum of 90% of Average Final Compensation (but not less than 2% of Average Final Compensation for each year of Credited Service).

For Police Officer members Eligible for Normal Retirement as of September 30, 2011:

3.38% of Average Final Compensation for each year of Credited Service.

For Firefighter Members not eligible for Normal Retirement as of September 18, 2012:

3% of Average Final Compensation for each year of Credited Service on or after September 19, 2012 and 3.5% of Average Final Compensation for each year of Credited Service before September 19, 2012, maximum of 90% of Average Final Compensation, (but not less than 2% of Average Final Compensation for each year of Credited Service).

For Firefighter Members eligible for Normal Retirement as of September 18, 2012:

3.5% of Average Final Compensation for each year of Credited Service, maximum of 90% (but not less than 2% of Average Final Compensation for each year of Credited Service).

Disability:

For Police Officer members:

3.0% of Final Average Compensation for each year of Credited Service, maximum of 90% of Final Average Compensation.

For Firefighter members:

3.5% of Final Average Compensation for each year of Credited Service, maximum of 90% of Final Average Compensation.

Normal Retirement:

Eligibility: 20 Years of Credited Service, or age 55 with 10 Years of Credited Service. Police Officer members Eligible for Normal Retirement as of September 30, 2011 or Firefighter Members eligible for Normal Retirement as of September 18, 2012.

Benefits: Accrued Retirement Benefit.

Eligibility: 20 Years of Credited Service, or age 55 with 10 Years of Credited Service. Police Officer members not Eligible for Normal Retirement as of September 30, 2011 or Firefighter Members not eligible for Normal Retirement as of September 18, 2012. For members hired on or after August 6, 2014, 25 Years of Credited Service or age 55 with 10 Years of Credited Service.

Benefits: Accrued Retirement Benefit, but in no event shall the monthly benefit payable at Normal retirement date be greater than \$5,500.

For active Police Officer Members as of September 30, 2011, whose Compensation for the fiscal year ending September 30, 2010 exceeds \$66,000 divided by 90%, the \$5,500 monthly maximum shall not apply.

For active Firefighter Members as of September 18, 2012, whose Compensation for the fiscal year ending September 30, 2012, exceeds \$66,000 divided by 90%, the \$5,500 monthly maximum shall not apply.

Termination:

Eligibility: Less than 10 years of Credited Service (excluding Military Buyback).

Benefit: Refund of Member Contributions.

Eligibility: 10 or more years of Credited Service (excluding Military Buyback).

Benefit: Accrued Service Retirement benefit, deferred to age 52.

Disability In Line of Duty:

Eligibility: Disability incurred in accident in performance of duties. Total and permanent; completely incapacitated for service to City, or performing offered City employment.

Benefit: Accrued Disability Benefit so long as the benefit is not less than table below.

<u>Credited Service</u>	<u>% of Average Final Compensation</u>
0-9	50%
10-14	60%
15 and over	75%

Benefits are offset by Workers' Compensation benefits, but not below the greater of 42% of Average Final Compensation or three percent of Average Final Compensation times years of Credited Service.

Survivor's benefit is 50% of Retiree's benefit.

Disability Not In Line of Duty:

Eligibility: After 5 or more years of Credited Service, and disability incurred in accident not while in performance of duties. Total and permanent; completely incapacitated for service to City, or performing offered City employment.

Benefit: Accrued Disability Benefit so long as the benefit is not less than table below.

<u>Credited Service</u>	<u>% of Average Final Compensation</u>
5-9	37.5%
10-19	50.0%

Survivor's benefit is 50% of Retiree's benefit.

Death In Line of Duty:

Eligibility: Incurred in accident in performance of duties.

Benefit: Pension of 50% of Average Final Compensation to spouse until death. If there is no spouse, or if spouse dies before youngest child is 18, 25% payable until attainment of age 18. If so spouse or no children under 18, benefit is payable to dependent parents.

Death Not In Line of Duty:

Eligibility: After 5 or more years of Credited Service, and death not accidentally incurred in performance of duties.

Benefit: Surviving spouse would receive 50% of the amount available for non-service connected disability. If there is no spouse the member's accrued Retirement benefit, reduced for early commencement, will be paid for 10 years.

Supplemental Benefit:

Eligibility: Firefighter Members.

Benefits: \$8.50 per month for each year of Credited Service (maximum \$215.00 per month), effective 12/1/2010.

COLA:

Eligibility: 6 years after benefit payments begin. For Police Officer Members who, on September 30, 2011, are (a) eligible for Normal Retirement, (b) retired, (c) in DROP, or (d) inactive.

Benefit: Cost of living increases of 2.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.

Eligibility: 6 years after benefit payments begin. For Police Officer Members who, on September 30, 2011, are (a) not eligible for Normal Retirement.

Benefit: Cost of living increase reduces to 1.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.

Eligibility: 6 years after benefit payments begin. For Firefighter Members who, on September 18, 2012, are (a) eligible for Normal Retirement, (b) retired, (c) in DROP, or (d) inactive.

Benefit: Cost of living increases of 2.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.

Eligibility: 6 years after benefit payments begin. For Firefighter Members who, on September 18, 2012, are (a) not eligible for Normal Retirement.

Benefit: Cost of living increase reduces to 1.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.

For Police Officers neither inactive nor eligible for Normal Retirement on September 30, 2011, a COLA Fund is established, to be funded by excess investment return subject to favorable cumulative experience.

*Contributions*

Member Contributions: 10.0% of Compensation for Police Officers and 9.7% of compensation for Firefighters, 6% interest per annum is credited on Member Contributions.

City Contributions: Actuarially determined, reduced by Member contributions and State Premium Tax refunds under Chapters 175 and 185.

**Investments**

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2018:

<u>Asset Class</u>	<u>Target Allocation</u>
Domestic Equities	25.0%
Fixed Income	22.0%
Real Estate	10.0%
Alternative Investments	18.0%
International Equities	25.0%
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, 2018, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 7.68 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: Police Officers and Firefighter Members eligible to retire with an immediate service retirement allowance.

Duration: Up to 60 months.

Benefits: Service retirement allowances are paid into the Member's DROP account, and credited on October 1 of each year at the rate of the system's net investment return, to be no less than 1% nor greater than 6.5%. No further Member or employer contributions are payable, and no further benefits are accrued.

Upon retirement and termination of DROP participation (or death) the Member (or beneficiary) may elect one of the following:

- (a) A lump sum of the DROP account balance;
- (b) A 10 years certain and life annuity based on the DROP balance;
- (c) Any other method of payment approved by the Board of Trustees.

The DROP balance as September 30, 2018 is \$2,921,774.

## NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2018 were as follows:

Total Pension Liability	\$ 249,653,282
Plan Fiduciary Net Position	\$ (184,817,431)
Sponsor's Net Pension Liability	\$ 64,835,851
Plan Fiduciary Net Position as a percentage of Total Pension Liability	74.03%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2017 updated to September 30, 2018 using the following actuarial assumptions:

Inflation	2.75%	
Salary Increases	Service based	
Discount Rate	7.50%	
Investment Rate of Return	7.50%	

*Mortality Rates:*

Healthy: Florida Retirement System special risk mortality projected with scale BB generationally.  
 Disabled: Florida Retirement System disabled mortality (no projection scale).

The most recent actuarial experience study used to review the other significant assumptions was dated July 22, 2015 performed by the prior actuary Nyhart, Atlanta (GA).

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 2018 the inflation rate assumption of the investment advisor was 2.30%.

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 arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2018 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equities	5.70%
Fixed Income	3.60%
Real Estate	5.50%
Alternative Investments	7.50%
International Equities	6.50%

**Discount Rate:**

The Discount Rate used to measure the Total Pension Liability was 7.50 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.

	Current Discount		
	1% Decrease	Rate	1% Increase
Sponsor's Net Pension Liability	\$ 93,520,624	\$ 64,835,851	\$ 40,957,500

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

	09/30/2018	09/30/2017 <sup>1</sup>	09/30/2016 <sup>1</sup>
Total Pension Liability			
Service Cost	3,315,488	3,104,761	3,059,821
Interest	18,050,280	16,816,363	16,281,420
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(1,579,758)	4,300,148	2,424,033
Changes of assumptions	-	6,833,267	-
Contributions - Buy Back	39,150	-	-
Benefit Payments, including Refunds of Employee Contributions	(15,053,567)	(14,572,515)	(14,782,786)
Net Change in Total Pension Liability	4,771,593	16,482,024	6,982,488
Total Pension Liability - Beginning	244,881,689	228,399,665	221,417,177
Total Pension Liability - Ending (a)	<u>\$249,653,282</u>	<u>\$244,881,689</u>	<u>\$228,399,665</u>
Plan Fiduciary Net Position			
Contributions - Employer	7,794,395	6,708,988	6,101,427
Contributions - State	937,925	813,174	903,454
Contributions - Employee	1,677,177	1,643,490	1,611,364
Contributions - Buy Back	39,150	-	-
Net Investment Income	13,601,101	15,868,037	11,893,070
Benefit Payments, including Refunds of Employee Contributions	(15,053,567)	(14,572,515)	(14,782,786)
Administrative Expense	(382,480)	(212,819)	(228,801)
Other	-	(85,305)	47,275
Net Change in Plan Fiduciary Net Position	8,613,701	10,163,050	5,545,003
Plan Fiduciary Net Position - Beginning	175,194,639	165,031,589	159,486,586
COLA Fund Account	1,009,091	-	-
Plan Fiduciary Net Position - Ending (b)	<u>\$184,817,431</u>	<u>\$175,194,639</u>	<u>\$165,031,589</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 64,835,851</u>	<u>\$ 69,687,050</u>	<u>\$ 63,368,076</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	74.03%	71.54%	72.26%
Covered Payroll	\$ 16,916,628	\$ 16,113,533	\$ 15,577,863
Net Pension Liability as a percentage of Covered Payroll	383.27%	432.48%	406.78%

**Notes to Schedule:**

<sup>1</sup> The 2014-2017 results were provided by the prior actuary, Nyhart, Atlanta (GA).

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

	09/30/2015 <sup>1</sup>	09/30/2014 <sup>1</sup>
Total Pension Liability		
Service Cost	3,106,850	2,904,618
Interest	15,930,259	15,352,995
Changes of benefit terms	-	2,646,915
Differences between Expected and Actual Experience	(207,633)	(83,080)
Changes of assumptions	-	-
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	(13,417,804)	(13,235,842)
Net Change in Total Pension Liability	5,411,672	7,585,606
Total Pension Liability - Beginning	216,005,505	208,419,899
Total Pension Liability - Ending (a)	<u>\$221,417,177</u>	<u>\$216,005,505</u>
Plan Fiduciary Net Position		
Contributions - Employer	6,523,904	6,074,757
Contributions - State	706,160	845,039
Contributions - Employee	1,601,259	1,694,513
Contributions - Buy Back	-	-
Net Investment Income	(4,437,902)	14,975,291
Benefit Payments, including Refunds of Employee Contributions	(13,417,804)	(13,235,842)
Administrative Expense	(224,275)	(276,745)
Other	(820,878)	1,073,790
Net Change in Plan Fiduciary Net Position	(10,069,536)	11,150,803
Plan Fiduciary Net Position - Beginning	169,556,122	158,405,319
COLA Fund Account	-	-
Plan Fiduciary Net Position - Ending (b)	<u>\$159,486,586</u>	<u>\$169,556,122</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 61,930,591</u>	<u>\$ 46,449,383</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	72.03%	78.50%
Covered Payroll	\$ 15,553,436	\$ 15,027,222
Net Pension Liability as a percentage of Covered Payroll	398.18%	309.10%

**Notes to Schedule:**

<sup>1</sup> The 2014-2017 results were provided by the prior actuary, Nyhart, Atlanta (GA).

**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
09/30/2018	\$ 8,685,382	\$ 8,732,320	\$ (46,938)	\$ 16,916,628	51.62%
09/30/2017 <sup>1</sup>	\$ 7,522,162	\$ 7,522,162	\$ -	\$ 16,113,533	46.68%
09/30/2016 <sup>1</sup>	\$ 7,004,881	\$ 7,004,881	\$ -	\$ 15,577,863	44.97%
09/30/2015 <sup>1</sup>	\$ 7,230,064	\$ 7,230,064	\$ -	\$ 15,553,436	46.49%
09/30/2014 <sup>1</sup>	\$ 8,114,895	\$ 8,114,895	\$ -	\$ 15,027,222	54.00%
09/30/2013 <sup>1</sup>	\$ 8,005,425	\$ 8,005,425	\$ -	\$ 15,139,296	52.88%
09/30/2012 <sup>1</sup>	\$ 7,906,623	\$ 7,906,623	\$ -	\$ 15,425,013	51.26%
09/30/2011 <sup>1</sup>	\$ 8,563,274	\$ 8,563,274	\$ -	\$ 16,026,354	53.43%
09/30/2010 <sup>1</sup>	\$ 7,920,192	\$ 7,920,192	\$ -	\$ 17,429,066	45.44%
09/30/2009 <sup>1</sup>	\$ 7,338,384	\$ 7,338,384	\$ -	\$ 17,932,496	40.92%

<sup>1</sup> The 2009-2017 results were provided by the prior actuary, Nyhart, Atlanta (GA).

Notes to Schedule

Valuation Date: 10/01/2016 (AIS 07/22/2017)

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:

Cost Method: Entry Age Normal Cost Method.

Asset Valuation Method: 20% Write-Up Method.

Amortization Method: 30-year closed period. Bases previously established after October 1, 2004 and prior to October 1, 2013 are re-amortized over the remainder of a 30-year period from establishment (as approved by the State).

Interest Rates: 7.50% net of investment expenses.

Annual Pay Increases: 2.75%, compounded annually for inflation plus a seniority/merit scale using the following rates:

Age	Rate %
20	3.0%
25	3.0%
30	2.5%
35	2.5%
40	2.0%
45	1.0%
50	0.0%
55	0.0%

Expense and/or Contingency Loading: Expected administrative expenses for the year of \$200,000

Mortality Rates Healthy: RP 2000 Mortality Table projected to 2010 using Scale AA.

Mortality Rates Disabled: RP 2000 Disabled Mortality Table projected to 2010 using Scale AA.

**GASB 67**

Disability Rates:	Age	Disability %
	20	0.14
	25	0.15
	30	0.18
	35	0.23
	40	0.30
	45	0.51
	50	1.00
	55	1.50

No disability assumed after 25 years of service.

Retirement Rates: Annual rates as follows:

After First Eligibility for Normal			
Retirement	Police %	Fire %	
0	35	25	
1	20	15	
2	20	15	
3	20	15	
4	20	15	
5	20	15	
6	20	15	
7	20	15	
8	20	15	
9	20	15	
10	100	100	

At age 60, Retirement Rate is 100%.

Withdrawal Rates:	Age	Police	Fire
		Turnover %	Turnover %
	20	16.80	7.47
	25	13.20	5.87
	30	8.64	3.84
	35	5.76	2.56
	40	3.36	1.49
	45	2.22	0.99
	50	1.92	0.85
	55	0.72	0.32

Marital Status and Ages: 80% of Members are assumed to be married. Female spouses assumed to be 3 years younger than male spouses.

Withdrawal of Employee Contributions: It is assumed that employees withdraw their contribution balances upon employment termination, if not vested. If vested, employees are assumed to not withdraw contributions, with monthly benefit deferred to age 52.

Type of Disability: 75% of the disabilities are expected to be service-connected disabilities, and 25% are expected to be non-service connected.

Recovery: No probabilities of recovery are used.

Disability Offsets: Disability benefits for service-incurred disabilities of active members are assumed to be offset by the greater of 2/3rd's Final Average Compensation or the Current Florida weekly wages projected with 2% inflation (based on Florida Statue §440.12 (a)); benefits valued for disability retirees are net of all current offsets.

Workers' Compensation: Current offsets are assumed to continue.

Type of Death: 75% of the assumed deaths are expected to be service-connected deaths and 25% are assumed to be non-service-connected.

State Contributions: Premium tax refunds under Chapters 175 and 185 are assumed to be the same as in the prior year.

Military Buyback: None.

## GASB 67

COLA:

Police & Firefighters are assumed to accrue the following COLA% upon retirement:

Police	<u>Service at 09/30/2011</u>	<u>COLA %</u>
	Less than 5 years	1.0
	Greater than 5, Less than 15	1.5
	Greater than 15	2.0
Firefighters	<u>Service at 09/18/2012</u>	<u>COLA %</u>
	Less than 5 years	1.0
	Greater than 5, Less than 15	1.5
	Greater than 15	2.0

**SCHEDULE OF INVESTMENT RETURNS**  
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2018	7.68%
09/30/2017 <sup>1</sup>	9.56%
09/30/2016 <sup>1</sup>	6.78%
09/30/2015 <sup>1</sup>	2.59%
09/30/2014 <sup>1</sup>	n/a

<sup>1</sup> From CAFR.

**NOTES TO THE FINANCIAL STATEMENTS**  
(For the Year Ended September 30, 2018)

General Information about the Pension Plan

*Plan Description*

The Plan is a single-employer defined benefit pension plan administered by the Police and Fire Pension Board, appointed by the City Commission.

Eligible for membership are Police officers and firefighters.

*Plan Membership as of October 1, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	398
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	28
Active Plan Members	300
	726
	726

*Benefits Provided*

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

Accrual of Benefits:

Retirement:

For Police Officer members not Eligible for Normal Retirement as of September 30, 2011:

3% of Average Final Compensation for each year of Credited Service after September 30, 2011 and 3.38% of Average Final Compensation for each year of Credited Service before September 30, 2011 maximum of 90% of Average Final Compensation (but not less than 2% of Average Final Compensation for each year of Credited Service).

For Police Officer members Eligible for Normal Retirement as of September 30, 2011:

3.38% of Average Final Compensation for each year of Credited Service.

For Firefighter Members not eligible for Normal Retirement as of September 18, 2012:

3% of Average Final Compensation for each year of Credited Service on or after September 19, 2012 and 3.5% of Average Final Compensation for each year of Credited Service before September 19, 2012, maximum of 90% of Average Final Compensation, (but not less than 2% of Average Final Compensation for each year of Credited Service).

For Firefighter Members eligible for Normal Retirement as of September 18, 2012:

3.5% of Average Final Compensation for each year of Credited Service, maximum of 90% (but not less than 2% of Average Final Compensation for each year of Credited Service).

Disability:

For Police Officer members:

3.0% of Final Average Compensation for each year of Credited Service, maximum of 90% of Final Average Compensation.

For Firefighter members:

3.5% of Final Average Compensation for each year of Credited Service, maximum of 90% of Final Average Compensation.

Normal Retirement:

Eligibility: 20 Years of Credited Service, or age 55 with 10 Years of Credited Service. Police Officer members Eligible for Normal Retirement as of September 30, 2011 or Firefighter Members eligible for Normal Retirement as of September 18, 2012.

Benefits: Accrued Retirement Benefit.

Eligibility: 20 Years of Credited Service, or age 55 with 10 Years of Credited Service. Police Officer members not Eligible for Normal Retirement as of September 30, 2011 or Firefighter Members not eligible for Normal Retirement as of September 18, 2012. For members hired on or after August 6, 2014, 25 Years of Credited Service or age 55 with 10 Years of Credited Service.

Benefits: Accrued Retirement Benefit, but in no event shall the monthly benefit payable at Normal retirement date be greater than \$5,500.

For active Police Officer Members as of September 30, 2011, whose Compensation for the fiscal year ending September 30, 2010 exceeds \$66,000 divided by 90%, the \$5,500 monthly maximum shall not apply.

For active Firefighter Members as of September 18, 2012, whose Compensation for the fiscal year ending September 30, 2012, exceeds \$66,000 divided by 90%, the \$5,500 monthly maximum shall not apply.

Termination:

Eligibility: Less than 10 years of Credited Service (excluding Military Buyback).

Benefit: Refund of Member Contributions.

Eligibility: 10 or more years of Credited Service (excluding Military Buyback).

Benefit: Accrued Service Retirement benefit, deferred to age 52.

Disability In Line of Duty:

Eligibility: Disability incurred in accident in performance of duties. Total and permanent; completely incapacitated for service to City, or performing offered City employment.

Benefit: Accrued Disability Benefit so long as the benefit is not less than table below.

<u>Credited Service</u>	<u>% of Average Final Compensation</u>
0-9	50%
10-14	60%
15 and over	75%

Benefits are offset by Workers' Compensation benefits, but not below the greater of 42% of Average Final Compensation or three percent of Average Final Compensation times years of Credited Service.

Survivor's benefit is 50% of Retiree's benefit.

Disability Not In Line of Duty:

Eligibility: After 5 or more years of Credited Service, and disability incurred in accident not while in performance of duties.

Benefit: Accrued Disability Benefit so long as the benefit is not less than table below.

<u>Credited Service</u>	<u>% of Average Final Compensation</u>
5-9	37.5%
10-19	50.0%

Survivor's benefit is 50% of Retiree's benefit.

Death In Line of Duty:

Eligibility: Incurred in accident in performance of duties.

Benefit: Pension of 50% of Average Final Compensation to spouse until death. If there is no spouse, or if spouse dies before youngest child is 18, 25% payable until attainment of age 18. If so spouse or no children under 18, benefit is payable to dependent parents.

Death Not In Line of Duty:

Eligibility: After 5 or more years of Credited Service, and death not accidentally incurred in performance of duties.

Benefit: Surviving spouse would receive 50% of the amount available for non-service connected disability. If there is no spouse the member's accrued Retirement benefit, reduced for early commencement, will be paid for 10 years.

Supplemental Benefit:

Eligibility: Firefighter Members.

Benefits: \$8.50 per month for each year of Credited Service (maximum \$215.00 per month), effective 12/1/2010.

COLA:

Eligibility: 6 years after benefit payments begin. For Police Officer Members who, on September 30, 2011, are (a) eligible for Normal Retirement, (b) retired, (c) in DROP, or (d) inactive.

Benefit: Cost of living increases of 2.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.

Eligibility: 6 years after benefit payments begin. For Police Officer Members who, on September 30, 2011, are (a) not eligible for Normal Retirement.

Benefit: Cost of living increase reduces to 1.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.

Eligibility: 6 years after benefit payments begin. For Firefighter Members who, on September 18, 2012, are (a) eligible for Normal Retirement, (b) retired, (c) in DROP, or (d) inactive.

Benefit: Cost of living increases of 2.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.

Eligibility: 6 years after benefit payments begin. For Firefighter Members who, on September 18, 2012, are (a) not eligible for Normal Retirement.

Benefit: Cost of living increase reduces to 1.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.

For Police Officers neither inactive nor eligible for Normal Retirement on September 30, 2011, a COLA Fund is established, to be funded by excess investment return subject to favorable cumulative experience.

*Contributions*

Member Contributions: 10.0% of Compensation for Police Officers and 9.7% of compensation for Firefighters, 6% interest per annum is credited on Member Contributions.

City Contributions: Actuarially determined, reduced by Member contributions and State Premium Tax refunds under Chapters 175 and 185.

Net Pension Liability

The measurement date is September 30, 2018.

The measurement period for the pension expense was October 1, 2017 to September 30, 2018.

The reporting period is October 1, 2017 through September 30, 2018.

The Sponsor's Net Pension Liability was measured as of September 30, 2018.

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, 2017 updated to September 30, 2018 using the following actuarial assumptions:

Inflation	2.75%
Salary Increases	Service based
Discount Rate	7.50%
Investment Rate of Return	7.50%

*Mortality Rates:*

Healthy: Florida Retirement System special risk mortality projected with scale BB generationally.

Disabled: Florida Retirement System disabled mortality (no projection scale).

The most recent actuarial experience study used to review the other significant assumptions was dated July 22, 2015 performed by the prior actuary Nyhart, Atlanta (GA).

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 2018 the inflation rate assumption of the investment advisor was 2.30%.

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 arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2018 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equities	25.0%	5.70%
Fixed Income	22.0%	3.60%
Real Estate	10.0%	5.50%
Alternative Investments	18.0%	7.50%
International Equities	25.0%	6.50%
Total	100.0%	

**Discount Rate:**

The Discount Rate used to measure the Total Pension Liability was 7.50 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)
Balances at September 30, 2017	\$ 244,881,689	\$ 175,194,639	\$ 69,687,050
COLA Fund Account	-	1,009,091	(1,009,091)
Changes for a Year:			
Service Cost	3,315,488	-	3,315,488
Interest	18,050,280	-	18,050,280
Differences between Expected and Actual Experience	(1,579,758)	-	(1,579,758)
Changes of assumptions	-	-	-
Changes of benefit terms	-	-	-
Contributions - Employer	-	7,794,395	(7,794,395)
Contributions - State	-	937,925	(937,925)
Contributions - Employee	-	1,677,177	(1,677,177)
Contributions - Buy Back	39,150	39,150	-
Net Investment Income	-	13,601,101	(13,601,101)
Benefit Payments, including Refunds of Employee Contributions	(15,053,567)	(15,053,567)	-
Administrative Expense	-	(382,480)	382,480
Net Changes	4,771,593	8,613,701	(3,842,108)
Balances at September 30, 2018	<u>\$ 249,653,282</u>	<u>\$ 184,817,431</u>	<u>\$ 64,835,851</u>

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.50%	7.50%	8.50%
Sponsor's Net Pension Liability	\$ 93,520,624	\$ 64,835,851	\$ 40,957,500

*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, 2018, the Sponsor will recognize a Pension Expense of \$11,432,280.

On September 30, 2018, 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	3,119,686	1,226,345
Changes of assumptions	3,416,633	-
Net difference between Projected and Actual Earnings on Pension Plan investments	611,882	-
Total	\$ 7,148,201	\$ 1,226,345

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:		
2019	\$	5,322,873
2020	\$	1,976,556
2021	\$	(1,247,867)
2022	\$	(129,706)
2023	\$	-
Thereafter	\$	-

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

	09/30/2018	09/30/2017 <sup>1</sup>	09/30/2016 <sup>1</sup>
Total Pension Liability			
Service Cost	3,315,488	3,104,761	3,059,821
Interest	18,050,280	16,816,363	16,281,420
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(1,579,758)	4,300,148	2,424,033
Changes of assumptions	-	6,833,267	-
Contributions - Buy Back	39,150	-	-
Benefit Payments, including Refunds of Employee Contributions	(15,053,567)	(14,572,515)	(14,782,786)
Net Change in Total Pension Liability	4,771,593	16,482,024	6,982,488
Total Pension Liability - Beginning	244,881,689	228,399,665	221,417,177
Total Pension Liability - Ending (a)	<u>\$249,653,282</u>	<u>\$244,881,689</u>	<u>\$228,399,665</u>
Plan Fiduciary Net Position			
Contributions - Employer	7,794,395	6,708,988	6,101,427
Contributions - State	937,925	813,174	903,454
Contributions - Employee	1,677,177	1,643,490	1,611,364
Contributions - Buy Back	39,150	-	-
Net Investment Income	13,601,101	15,868,037	11,893,070
Benefit Payments, including Refunds of Employee Contributions	(15,053,567)	(14,572,515)	(14,782,786)
Administrative Expense	(382,480)	(212,819)	(228,801)
Other	-	(85,305)	47,275
Net Change in Plan Fiduciary Net Position	8,613,701	10,163,050	5,545,003
Plan Fiduciary Net Position - Beginning	175,194,639	165,031,589	159,486,586
COLA Fund Account	1,009,091	-	-
Plan Fiduciary Net Position - Ending (b)	<u>\$184,817,431</u>	<u>\$175,194,639</u>	<u>\$165,031,589</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 64,835,851</u>	<u>\$ 69,687,050</u>	<u>\$ 63,368,076</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	74.03%	71.54%	72.26%
Covered Payroll	\$ 16,916,628	\$ 16,113,533	\$ 15,577,863
Net Pension Liability as a percentage of Covered Payroll	383.27%	432.48%	406.78%

**Notes to Schedule:**

<sup>1</sup> The 2014-2017 results were provided by the prior actuary, Nyhart, Atlanta (GA).

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

	<u>09/30/2015<sup>1</sup></u>	<u>09/30/2014<sup>1</sup></u>
Total Pension Liability		
Service Cost	3,106,850	2,904,618
Interest	15,930,259	15,352,995
Changes of benefit terms	-	2,646,915
Differences between Expected and Actual Experience	(207,633)	(83,080)
Changes of assumptions	-	-
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	<u>(13,417,804)</u>	<u>(13,235,842)</u>
Net Change in Total Pension Liability	5,411,672	7,585,606
Total Pension Liability - Beginning	<u>216,005,505</u>	<u>208,419,899</u>
Total Pension Liability - Ending (a)	<u><u>\$221,417,177</u></u>	<u><u>\$216,005,505</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	6,523,904	6,074,757
Contributions - State	706,160	845,039
Contributions - Employee	1,601,259	1,694,513
Contributions - Buy Back	-	-
Net Investment Income	(4,437,902)	14,975,291
Benefit Payments, including Refunds of Employee Contributions	(13,417,804)	(13,235,842)
Administrative Expense	(224,275)	(276,745)
Other	<u>(820,878)</u>	<u>1,073,790</u>
Net Change in Plan Fiduciary Net Position	(10,069,536)	11,150,803
Plan Fiduciary Net Position - Beginning	169,556,122	158,405,319
COLA Fund Account	-	-
Plan Fiduciary Net Position - Ending (b)	<u><u>\$159,486,586</u></u>	<u><u>\$169,556,122</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 61,930,591</u></u>	<u><u>\$ 46,449,383</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	72.03%	78.50%
Covered Payroll	\$ 15,553,436	\$ 15,027,222
Net Pension Liability as a percentage of Covered Payroll	398.18%	309.10%

**Notes to Schedule:**

<sup>1</sup> The 2014-2017 results were provided by the prior actuary, Nyhart, Atlanta (GA).

**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
09/30/2018	\$ 8,685,382	8,732,320	\$ (46,938)	\$ 16,916,628	51.62%
09/30/2017 <sup>1</sup>	\$ 7,522,162	\$ 7,522,162	\$ -	\$ 16,113,533	46.68%
09/30/2016 <sup>1</sup>	\$ 7,004,881	\$ 7,004,881	\$ -	\$ 15,577,863	44.97%
09/30/2015 <sup>1</sup>	\$ 7,230,064	\$ 7,230,064	\$ -	\$ 15,553,436	46.49%
09/30/2014 <sup>1</sup>	\$ 8,114,895	\$ 8,114,895	\$ -	\$ 15,027,222	54.00%
09/30/2013 <sup>1</sup>	\$ 8,005,425	\$ 8,005,425	\$ -	\$ 15,139,296	52.88%
09/30/2012 <sup>1</sup>	\$ 7,906,623	\$ 7,906,623	\$ -	\$ 15,425,013	51.26%
09/30/2011 <sup>1</sup>	\$ 8,563,274	\$ 8,563,274	\$ -	\$ 16,026,354	53.43%
09/30/2010 <sup>1</sup>	\$ 7,920,192	\$ 7,920,192	\$ -	\$ 17,429,066	45.44%
09/30/2009 <sup>1</sup>	\$ 7,338,384	\$ 7,338,384	\$ -	\$ 17,932,496	40.92%

<sup>1</sup> The 2009-2017 results were provided by the prior actuary, Nyhart, Atlanta (GA).

Notes to Schedule

Valuation Date: 10/01/2016 (AIS 07/22/2017)

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:

- Cost Method: Entry Age Normal Cost Method.
- Asset Valuation Method: 20% Write-Up Method.
- Amortization Method: 30-year closed period. Bases previously established after October 1, 2004 and prior to October 1, 2013 are re-amortized over the remainder of a 30-year period from establishment (as approved by the State).
- Interest Rates: 7.50% net of investment expenses.
- Annual Pay Increases: 2.75%, compounded annually for inflation plus a seniority/merit scale using the following rates:

Age	Rate %
20	3.0%
25	3.0%
30	2.5%
35	2.5%
40	2.0%
45	1.0%
50	0.0%
55	0.0%

- Expense and/or Contingency Loading: Expected administrative expenses for the year of \$200,000
- Mortality Rates Healthy: RP 2000 Mortality Table projected to 2010 using Scale AA.
- Mortality Rates Disabled: RP 2000 Disabled Mortality Table projected to 2010 using Scale AA.

## GASB 68

Disability Rates:	Age	Disability %
	20	0.14
	25	0.15
	30	0.18
	35	0.23
	40	0.30
	45	0.51
	50	1.00
	55	1.50

No disability assumed after 25 years of service.

Retirement Rates: Annual rates as follows:

After First Eligibility for Normal

Retirement	Police %	Fire %
0	35	25
1	20	15
2	20	15
3	20	15
4	20	15
5	20	15
6	20	15
7	20	15
8	20	15
9	20	15
10	100	100

At age 60, Retirement Rate is 100%.

Withdrawal Rates:	Age	Police Turnover %	Fire Turnover %
	20	16.80	7.47
	25	13.20	5.87
	30	8.64	3.84
	35	5.76	2.56
	40	3.36	1.49
	45	2.22	0.99
	50	1.92	0.85
	55	0.72	0.32

Marital Status and Ages: 80% of Members are assumed to be married. Female spouses assumed to be 3 years younger than male spouses.

Withdrawal of Employee Contributions: It is assumed that employees withdraw their contribution balances upon employment termination, if not vested. If vested, employees are assumed to not withdraw contributions, with monthly benefit deferred to age 52.

Type of Disability: 75% of the disabilities are expected to be service-connected disabilities, and 25% are expected to be non-service connected.

Recovery: No probabilities of recovery are used.

Disability Offsets: Disability benefits for service-incurred disabilities of active members are assumed to be offset by the greater of 2/3rd's Final Average Compensation or the Current Florida weekly wages projected with 2% inflation (based on Florida Statue §440.12 (a)); benefits valued for disability retirees are net of all current offsets.

Workers' Compensation: Current offsets are assumed to continue.

Type of Death: 75% of the assumed deaths are expected to be service-connected deaths and 25% are assumed to be non-service-connected.

State Contributions: Premium tax refunds under Chapters 175 and 185 are assumed to be the same as in the prior year.

Military Buyback: None.

## GASB 68

COLA:

Police & Firefighters are assumed to accrue the following COLA% upon retirement:

Police	<u>Service at 09/30/2011</u>	<u>COLA %</u>
	Less than 5 years	1.0
	Greater than 5, Less than 15	1.5
	Greater than 15	2.0
Firefighters	<u>Service at 09/18/2012</u>	<u>COLA %</u>
	Less than 5 years	1.0
	Greater than 5, Less than 15	1.5
	Greater than 15	2.0

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, 2018**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 69,687,050	\$ 3,107,139	\$ 16,580,154	\$ -
<b>Total Pension Liability Factors:</b>				
Service Cost	3,315,488	-	-	3,315,488
Interest	18,050,280	-	-	18,050,280
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	39,150	-	-	39,150
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(1,579,758)	1,579,758	-	-
Current year amortization of experience difference	-	(436,465)	(1,559,844)	1,123,379
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(1,708,317)	1,708,317
Benefit Payments, including Refunds of Employee Contributions	(15,053,567)	-	-	-
Net change	<u>4,771,593</u>	<u>1,143,293</u>	<u>(3,268,161)</u>	<u>24,236,614</u>
<b>Plan Fiduciary Net Position:</b>				
Contributions - Employer	7,794,395	-	-	-
Contributions - State	937,925	-	-	-
Contributions - Employee	1,677,177	-	-	(1,677,177)
Contributions - Buy Back	39,150	-	-	(39,150)
Projected Net Investment Income	12,952,570	-	-	(12,952,570)
Difference between projected and actual earnings on Pension Plan investments	648,531	648,531	-	-
Current year amortization	-	(896,662)	(3,387,836)	2,491,174
Benefit Payments, including Refunds of Employee Contributions	(15,053,567)	-	-	-
Administrative Expenses	(382,480)	-	-	382,480
Net change	<u>8,613,701</u>	<u>(248,131)</u>	<u>(3,387,836)</u>	<u>(11,795,243)</u>
COLA Fund Account	1,009,091	-	-	(1,009,091)
Ending Balance	<u><u>\$ 64,835,851</u></u>	<u><u>\$ 4,002,301</u></u>	<u><u>\$ 9,924,157</u></u>	<u><u>\$ 11,432,280</u></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)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2015	\$ 16,939,182	5	\$ 3,387,836	\$ 3,387,838	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (218,676)	5	\$ (43,735)	\$ (43,735)	\$ (43,736)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (3,616,101)	5	\$ (723,220)	\$ (723,220)	\$ (723,220)	\$ (723,221)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (648,531)	5	\$ (129,707)	\$ (129,706)	\$ (129,706)	\$ (129,706)	\$ (129,706)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			<u>\$ 2,491,174</u>	<u>\$ 2,491,177</u>	<u>\$ (896,662)</u>	<u>\$ (852,927)</u>	<u>\$ (129,706)</u>	<u>\$ -</u>					

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)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2017	\$ 6,833,267	4	\$ 1,708,317	\$ 1,708,317	\$ 1,708,316	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 1,708,317	\$ 1,708,317	\$ 1,708,316	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2015	\$ (207,633)	5	\$ (41,527)	\$ (41,525)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 2,424,033	5	\$ 484,807	\$ 484,807	\$ 484,805	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 4,300,148	4	\$ 1,075,037	\$ 1,075,037	\$ 1,075,037	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (1,579,758)	4	\$ (394,938)	\$ (394,940)	\$ (394,940)	\$ (394,940)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 1,123,379	\$ 1,123,379	\$ 1,164,902	\$ (394,940)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -