#### CITY OF EUSTIS MUNICIPAL FIREFIGHTERS' PENSION AND RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF OCTOBER 1, 2017

CONTRIBUTIONS APPLICABLE TO THE PLAN/ FISCAL YEAR ENDED SEPTEMBER 30, 2019



March 2, 2018

Board of Trustees City of Eustis Firefighters' Pension Board 100 West Norton Avenue Eustis, FL 32726

Re: City of Eustis Municipal Firefighters' Pension and Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Eustis Municipal Firefighters' Pension and 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. Please note that these valuations may not be applicable for any other purposes.

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, and 175, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in these 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.

In conducting these valuations, we have relied on personnel, plan design, and asset information supplied by the City of Eustis and the Board of Trustees, 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, 2016. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2017 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 Eustis, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the City of Eustis Municipal Firefighters' Pension and 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:

Patrick T. Donlan, MAAA, ASA Enrolled Actuary #17-6595

PTD\lke Enclosures

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#### SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Eustis Municipal Firefighters' Pension and Retirement System, performed as of October 1, 2017, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ended September 30, 2019.

The contribution requirements, compared with those set forth in the October 1, 2016, actuarial valuation report, are as follows:

Valuation Date Applicable Plan/Fiscal Year End	10/1/2017 <u>9/30/2019</u>	10/1/2016 <u>9/30/2018</u>
Total Required Contribution % of Total Annual Payroll	50.8%	60.4%
Member Contributions (Est.) % of Total Annual Payroll	4.0%	4.0%
Required City and State Cont. % of Total Annual Payroll	46.8%	56.4%
State Contribution <sup>1</sup> % of Total Annual Payroll	101,295 7.1%	101,295 7.1%
City Required Contribution % of Total Annual Payroll	39.7%	49.3%

<sup>1</sup> The State Contribution reflects the "default" calculation under Chapter 2015-39 Laws of Florida. We applied this effective October 1, 2016. It is important to note that the estimated allowable State Contribution is based on the amount received in 2017.

As requested by the Division of Retirement, the required contribution from the combination of City and State sources for the year ending September 30, 2019, is 46.8% of the actual non-DROP payroll realized in that year. As a budgeting tool, the City may contribute 39.7% of each non-DROP Member's Salary and then make a one-time adjustment to account for the actual State Monies received.

As can be seen, the Total Required Contribution has decreased when expressed as a percentage of Total Annual Non-DROP Payroll. Overall, the actuarial experience has been unfavorable over the past year. The primary components of unfavorable experience included no employee turnover, no retiree mortality and a 6.65% investment return (Actuarial Asset basis) that was less than the assumed rate. These losses were partially offset by the effect of lower than expected average individual salary increases. The reason that the costs decreased as a percentage of Total Annual Payroll is that the Board approved a series of assumption and method changes as outlined on the following page.

Just as a matter of information, if you look at the estimated required contribution for fiscal 2019, as a percentage of the total payroll of the Firefighters, including estimated pay for the DROP Members, then it would be approximately 37.4% (vs. 39.7% listed above). It is important to point out that the actual requirements are the percentages of non-DROP payroll.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

By: Patrick T. Donlan, EA, ASA, MAAA

#### CHANGES SINCE PRIOR VALUATION

#### Plan Changes Since Prior Valuation

There have been no plan changes since the prior valuation.

#### Actuarial Assumption/Method Changes Since Prior Valuation

Since the prior valuation the mortality table has changed to comply with Chapter 2015-157, Laws of Florida to be the same rates as used in the July 1, 2016 Florida Retirement System (FRS) valuation for special risk lives. Previously the July 1, 2015 FRS valuation rates were used.

As a result of an Experience Study dated September 1, 2017, the Board approved the following changes to the assumptions in conjunction with this report:

- 1.) Reduce the investment return assumption from 8.0% to 7.9% per year, net of investment related expenses.
- 2.) Change the assumed rate of individual salary increases from a flat 6.50% per year to a servicebased assumption as outlined in the "Actuarial Assumptions and Methods" section of this report.
- 3.) Discontinue use of the assumption that if a Member is eligible for Normal Retirement on the valuation date they will continue employment for one additional year.
- 4.) Change the expected rates of non-retirement terminations from an age-based table to an assumption of 25.0% in the first year of employment, 13.0% per year during the next 4 years of employment, 9.0% for the next 5 years of employment, 5.0% for years 10 19, and 0.0% per year beginning at 20 years of employment.
- 5.) The Unfunded Actuarial Accrued Liability was consolidated into one base with an 8-year level dollar amortization. All future bases of any type (gains and losses, assumption and method changes, and benefit changes) will be amortized over 15 years.

#### CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2016	48.7%
(2) Summary of Contribution Impact by component:	
Change in State Contribution Percentage	0.6%
Change in Normal Cost Rate	-0.8%
Change in Administrative Expense Percentage	-0.3%
Payroll Change Effect on UAAL Amortization	-0.2%
Investment Return (Actuarial Asset Basis)	1.0%
Salary Increases	-0.8%
Active Decrements	1.8%
Inactive Mortality	0.3%
Assumptions/Method Change	-10.5%
Other	<u>-0.1%</u>
Total Change in Contribution	-9.0%
(3) Contribution Determined as of October 1, 2017	39.7%

#### COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Asmp/Mthd <u>10/1/2017</u>	Old Asmp/Mthd <u>10/1/2017</u>	<u>10/1/2016</u>
A. Participant Data			
Actives	22	22	22
Service Retirees	15	15	15
DROP Retirees	1	1	1
Beneficiaries	1	1	1
Disability Retirees	3	3	3
Terminated Vested	<u>15</u>	<u>15</u>	<u>15</u>
Total	57	57	57
Total Annual Payroll	\$1,425,850	\$1,422,736	\$1,359,883
Payroll Under Assumed Ret. Age	1,425,850	1,422,736	1,359,883
Annual Rate of Payments to:			
Service Retirees	427,532	427,532	427,532
DROP Retirees	76,332	76,332	76,332
Beneficiaries	14,207	14,207	14,207
Disability Retirees	76,298	76,298	76,298
Terminated Vested	36,694	36,694	36,694
B. Assets			
Actuarial Value (AVA) <sup>1</sup>	9,108,419	9,108,419	8,270,831
Market Value (MVA) <sup>1</sup>	9,008,000	9,008,000	7,902,059
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	5,526,857	4,723,025	4,204,423
Disability Benefits	440,200	377,845	364,207
Death Benefits	48,171	90,166	82,456
Vested Benefits	778,517	1,274,198	1,137,436
Refund of Contributions	41,105	36,916	39,809
Service Retirees	4,612,803	4,573,206	4,622,940
DROP Retirees <sup>1</sup>	1,074,927	1,067,553	978,182
Beneficiaries	148,342	147,152	149,106
Disability Retirees	805,188	798,468	805,189
Terminated Vested	206,998	203,765	188,051
Share Plan Balances <sup>1</sup>	24,057	24,057	<u>16,556</u>
Total	13,707,165	13,316,351	12,588,355

C. Liabilities - (Continued)	New Asmp/Mthd <u>10/1/2017</u>	Old Asmp/Mthd <u>10/1/2017</u>	<u>10/1/2016</u>
Present Value of Future Salaries	12,124,300	10,856,728	10,489,897
Present Value of Future			
Member Contributions	484,972	434,269	419,596
Normal Cost (Retirement)	178,313	156,473	158,862
Normal Cost (Disability)	27,697	26,191	26,806
Normal Cost (Death)	1,862	3,544	3,425
Normal Cost (Vesting)	37,541	56,114	50,695
Normal Cost (Refunds)	7,603	<u>6,664</u>	<u>8,770</u>
Total Normal Cost	253,016	248,986	248,558
Present Value of Future			
Normal Costs	2,004,042	1,807,340	1,816,957
Accrued Liability (Retirement)	4,040,104	3,574,241	3,019,855
Accrued Liability (Disability)	218,516	186,398	165,808
Accrued Liability (Death)	32,615	64,540	57,634
Accrued Liability (Vesting)	528,209	857,170	754,899
Accrued Liability (Refunds)	11,364	12,461	13,178
Accrued Liability (Inactives) <sup>1</sup>	6,848,258	6,790,144	6,743,468
Share Plan Balances <sup>1</sup>	24,057	24,057	16,556
Total Actuarial Accrued Liability (EAN AL)	11,703,123	11,509,011	10,771,398
Unfunded Actuarial Accrued			
Liability (UAAL)	2,594,704	2,400,592	2,500,567
Funded Ratio (AVA / EAN AL)	77.8%	79.1%	76.8%

D. Actuarial Present Value of Accrued Benefits	New Asmp/Mthd <u>10/1/2017</u>	Old Asmp/Mthd <u>10/1/2017</u>	<u>10/1/2016</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	6,872,315	6,814,201	6,760,024
Actives	2,252,699	2,213,015	1,644,117
Member Contributions	<u>383,443</u>	<u>383,443</u>	330,007
Total	9,508,457	9,410,659	8,734,148
Non-vested Accrued Benefits	<u>186,445</u>	<u>171,229</u>	<u>307,936</u>
Total Present Value			
Accrued Benefits (PVAB)	9,694,902	9,581,888	9,042,084
Funded Ratio (MVA / PVAB)	92.9%	94.0%	87.4%
Increase (Decrease) in Present Value of			
Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	113,014	0	
New Accrued Benefits	0	355,196	
Benefits Paid	0	(518,037)	
Interest	0	702,645	
Other	<u>0</u>	<u>0</u>	
Total	113,014	539,804	

Valuation Date Applicable to Fiscal Year Ending	New Asmp/Mthd 10/1/2017 <u>9/30/2019</u>	Old Asmp/Mthd 10/1/2017 <u>9/30/2019</u>	10/1/2016 <u>9/30/2018</u>
E. Pension Cost			
Normal Cost (with interest)			
% of Total Annual Payroll <sup>2</sup>	18.4	18.2	19.0
Administrative Expenses (with interest)			
% of Total Annual Payroll <sup>2</sup>	2.0	2.0	2.3
Payment Required to Amortize			
Unfunded Actuarial Accrued			
Liability over 8 years $(a_{2}, c_{1}, b_{2})$ with interact)			
(as of 10/1/2017, with interest) % of Total Annual Payroll <sup>2</sup>	30.4	41.1	39.1
	50.4	41.1	59.1
Total Required Contribution			
% of Total Annual Payroll <sup>2</sup>	50.8	61.3	60.4
Expected Member Contributions			
% of Total Annual Payroll <sup>2</sup>	4.0	4.0	4.0
Expected City and State Contribution			
% of Total Annual Payroll <sup>2</sup>	46.8	57.3	56.4
F. Past Contributions			
Plan Years Ending:	<u>9/30/2017</u>		
Total Required Contribution	784,171		
City and State Requirement	730,735		
Actual Contributions Made:			
Members (excluding buyback)	53,436		
City	662,590		
State	<u>101,295</u>		
Total	817,321		
G. Net Actuarial (Gain)/Loss	248,900		
1 The asset values and liabilities include accur	ulated DPOP and Sh	ara Plan Balances as of	

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2017 and 9/30/2016.

<sup>2</sup> Contributions developed as of 10/1/2017 are expressed as a percentage of total annual payroll at 10/1/2017 of \$1,425,850.

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

Year	Projected Unfunded Actuarial Accrued Liability
2017	2,594,704
2018	2,349,881
2019	2,085,717
2021	1,493,133
2022	1,161,286
2024	416,873
2025	0

I. (i) 3 Year Comparison of Actual and Assumed Salary Increases

		<u>Actual</u>	Assumed
Year Ended	9/30/2017	4.62%	6.50%
Year Ended	9/30/2016	5.51%	6.50%
Year Ended	9/30/2015	5.56%	6.50%

(ii) 3 Year Comparison of Investment Return on Actuarial Value

		Actual	Assumed
Year Ended	9/30/2017	6.65%	8.00%
Year Ended	9/30/2016	7.58%	8.00%
Year Ended	9/30/2015	10.12%	8.00%

#### (iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2017 10/1/2007	\$1,425,850 1,049,828
(b) Total Increase		35.82%
(c) Number of Years		10.00
(d) Average Annual Rate		3.11%

#### 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.

atrick T. Vonlan

Patrick T. Donlan, EA, ASA, MAAA Enrolled Actuary #17-6595

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

## RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES (OLD METHOD)

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2016	\$2,500,567
(2)	Sponsor Normal Cost developed as of October 1, 2016	194,163
(3)	Expected administrative expenses for the year ended September 30, 2017	30,551
(4)	Expected interest on (1), (2) and (3)	216,800
(5)	Sponsor contributions to the System during the year ended September 30, 2017	763,885
(6)	Expected interest on (5)	26,504
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2017 (1)+(2)+(3)+(4)-(5)-(6)	2,151,692
(8)	Change to UAAL due to Assumption Change	194,112
(9)	Change to UAAL due to Actuarial (Gain)/Loss	248,900
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2017	2,594,704

Type of	Date	Years	10/1/2017	Amortization
Base	<b>Established</b>	<u>Remaining</u>	Amount	Amount
Method Change	10/1/2004	17	193,688	19,548
Actuarial Loss	10/1/2004	11	164,017	21,190
Actuarial Loss	10/1/2005	11	361,449	46,696
Actuarial Gain	10/1/2006	11	(341,023)	(44,057)
Actuarial Gain	10/1/2007	11	(16,628)	(2,148)
Actuarial Loss	10/1/2008	1	116,675	116,675
Method Change	10/1/2008	11	171,337	22,135
Actuarial Loss	10/1/2009	2	221,654	115,038
Actuarial Loss	10/1/2010	3	211,544	75,939
Assum Changes	10/1/2010	13	81,872	9,547
Actuarial Loss	10/1/2013	6	911,761	182,234
Software Change	10/1/2013	16	(253,440)	(26,367)
Actuarial Gain	10/1/2014	7	(281,559)	(49,949)
Actuarial Loss	10/1/2015	8	292,484	46,991
Actuarial Loss	10/1/2016	9	109,973	16,248
Chapter 2015-39	10/1/2016	4	(4,731)	(1,321)
Assum Changes	10/1/2016	19	212,619	20,371
Actuarial Loss	10/1/2017	10	248,900	34,223
Assum. Change	10/1/2017	20	<u>194,112</u>	<u>18,187</u>
			2,594,704	621,180

# RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES (NEW METHOD)

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2016	\$2,500,567
(2)	Sponsor Normal Cost developed as of October 1, 2016	194,163
(3)	Expected administrative expenses for the year ended September 30, 2017	30,551
(4)	Expected interest on (1), (2) and (3)	216,800
(5)	Sponsor contributions to the System during the year ended September 30, 2017	763,885
(6)	Expected interest on (5)	26,504
(7)	Expected Unfunded Actuarial Accrued Liability as of	
. ,	September 30, 2017 (1)+(2)+(3)+(4)-(5)-(6)	2,151,692
(8)	Change to UAAL due to Assumption Change	194,112
(9)	Change to UAAL due to Actuarial (Gain)/Loss	248,900
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2017	2,594,704

Type of	Date	Years	10/1/2017	Amortization
Base	<b>Established</b>	<u>Remaining</u>	Amount	Amount
Consolidated	10/1/2017	8	2,594,704	416,872

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2016	\$2,500,567
(2)	Expected UAAL as of October 1, 2017	2,151,692
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	113,593
	Salary Increases	(96,519)
	Active Decrements	211,272
	Inactive Mortality	40,755
	Other	<u>(20,201)</u>
	Increase in UAAL due to (Gain)/Loss	248,900
	Assumption Changes	<u>194,112</u>
(4)	Actual UAAL as of October 1, 2017	\$2,594,704

## ACTUARIAL ASSUMPTIONS AND FUNDING METHODS

Mortality Rate	Healthy Active Lives:
	<b>Female:</b> RP2000 Generational, 100% Combined Healthy (previously annuitant) White Collar, Scale BB <b>Male:</b> RP2000 Generational, 10% Combined Healthy (previously annuitant) White Collar / 90% Combined Healthy (previously annuitant) Blue Collar, Scale BB
	Healthy Inactive Lives:
	<b>Female:</b> RP2000 Generational, 100% Annuitant White Collar, Scale BB <b>Male:</b> RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB
	Disabled Lives:
	<b>Female:</b> 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale <b>Male:</b> 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale
	The assumed rates of mortality 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 the July 1, 2016 FRS actuarial valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.
Interest Rate	7.90% (previously 8.00%) per year compounded annually, net of investment related expenses. This is supported by the target asset class allocation of the trust and the expected long-term return by asset class.
Normal Retirement Age	Earlier of:
	<ul><li>a) Age 55 and the completion of 10 years of service, or</li><li>b) Age 52 and the completion of 25 years of service.</li></ul>
	(Previously Members who are eligible to retire on the valuation date are assumed to work one additional year).
	This is supported by the results of an actuarial experience study issued September 1, 2017.

Early Retirement Age	Commencing at eligibility for Early Retirement, members are assumed to retire with an immediate benefit at the rate of 5.00% per year. This is supported by the results of an actuarial experience study issued September 1, 2017.		
Disability Rate	See table below (1205). It is assumed that 66.67% of disabilities are in the line of duty. This is supported by the results of an actuarial experience study issued September 1, 2017.		
Termination Rate	Years of ServiceExpected Rate of Termination< 1 Years		
Salary Increases	ServicePrior AssumCurrent Assum<1 Year		
Administrative Expenses	Average actual expenses over previous 2 years.		
Payroll Growth	None for the purpose of amortizing the UAAL (previously $4.12\%$ for the $10/1/2016$ Valuation).		
Funding Method	Entry Age Normal Actuarial Cost Method.		
Asset Valuation Method	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.		

Age	% Becoming Disabled During the Year	(Prior Assum) % Terminating <u>During the Year</u>
20	0.14%	14.00%
30	0.18	10.70
40	0.30	7.70
50	1.00	1.75

#### GLOSSARY

- <u>Total Annual Payroll</u> is the projected annual rate of pay for the fiscal year following the valuation date of all covered Members.
- <u>Present Value of Benefits</u> 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.
- <u>Total Required Contribution</u> 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.
- <u>Entry Age Normal Cost Method</u> Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.
  - (a) The normal cost accrual rate equals
    - (i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by
    - (ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
  - (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
  - (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

#### PARTIAL HISTORY OF PREMIUM TAX REFUNDS

Received During <u>Fiscal Year</u>	Amount	Increase from <u>Previous Year</u>
1998	46,987.00	%
1999	37,705.21	-19.8%
2000	43,827.38	16.2%
2001	46,377.71	5.8%
2002	43,434.00	-6.3%
2003	54,751.82	26.1%
2004	53,532.74	-2.2%
2005	60,043.32	12.2%
2006	65,916.92	9.8%
2007	76,903.55	16.7%
2008	99,201.43	29.0%
2009	102,764.07	3.6%
2010	85,818.43	-16.5%
2011	85,151.47	-0.8%
2012	85,206.79	0.1%
2013	95,824.03	12.5%
2014	90,690.37	-5.4%
2015	101,738.84	12.2%
2016	115,997.48	14.0%
2017	108,561.04	-6.4%

## SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY October 1, 2016 through September 30, 2017

9/30/2016 Balance	16,555.86
Prior Year Adjustment	0.00
Plus Additions	7,265.86
Investment Return Earned	1,735.05
Administrative Fees	(1,500.00)
Less Distributions	0.00
9/30/2017 Balance	24,056.77

\* Please note that all of these figures will possibly change. There is disagreement on whether the State Monies received by the Plan in calendar 2012 are to be combined or not combined for the purposes of the default calculation. We have asked the legal department of the Florida Division of Retirement for a legal opinion. but have not yet heard back.

#### STATEMENT OF FIDUCIARY NET POSITION SEPTEMBER 30, 2017

ASSETS	COST VALUE	MARKET VALUE
Cash and Cash Equivalents: Money Market	245,300.52	245,300.52
Total Cash and Equivalents	245,300.52	245,300.52
Receivables:		
Member Contributions in Transit	6,464.05	6,464.05
City Contributions in Transit	80,108.74	80,108.74
State Contributions	108,561.04	108,561.04
Investment Income	4,002.82	4,002.82
Total Receivable	199,136.65	199,136.65
Investments:		
Fixed	3,254,241.82	3,276,791.21
Equities	4,307,943.84	5,164,343.29
Miscellaneaous	107,883.65	122,428.18
Total Investments	7,670,069.31	8,563,562.68
Total Assets	8,114,506.48	9,007,999.85
LIABILITIES		
Total Liabilities	0.00	0.00
NET POSITION RESTRICTED FOR PENSIONS	8,114,506.48	9,007,999.85

#### STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED SEPTEMBER 30, 2017 Market Value Basis

#### ADDITIONS

Contributions:			
Member City		53,435.84 662,589.81	
State		108,561.04	
State		100,501.04	
Total Contributions			824,586.69
Investment Income:			
Net Realized Gain (Loss)	120,968.76		
Unrealized Gain (Loss)	465,454.60		
Net Increase in Fair Value of Investments		586,423.36	
Interest & Dividends		279,332.79	
Less Investment Expense <sup>1</sup>		(37,852.14)	
Net Investment Income			827,904.01
Total Additions			1,652,490.70
DEDUCTIONS			
Distributions to Members:			
Benefit Payments		518,037.36	
Lump Sum DROP Distributions		0.00	
•			
Total Distributions			518,037.36
Administrative Expense			28,512.25
Total Deductions			546,549.61
Total Deductions			540,549.01
Net Increase in Net Position			1,105,941.09
			_, ,
NET POSITION RESTRICTED FOR PENSIONS	5		
Beginning of the Year			7,902,058.76
End of the Year			9,007,999.85

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

#### ACTUARIAL ASSET VALUATION SEPTEMBER 30, 2017

Actuarial Assets for funding purposes are developed by increasing the Actuarial Assets used in the most recent actuarial valuation of the Fund by the average annual market value rate of return (net of investment related expenses) for the past four years. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Details of the derivation are set forth as follows:

Plan Year End	Rate of Return <sup>1</sup>		
09/30/2014	9.07%		
09/30/2015	-0.42%		
09/30/2016	7.83%		
09/30/2017	10.48%		
Annualized Rate of Return for prior four (4) years	S:	6.65%	
(A) 10/01/2016 Actuarial Assets:			\$8,270,831.32
(I) Net Investment Income:			
<ol> <li>Interest and Dividends</li> <li>Realized Gains (Losses)</li> <li>Change in Actuarial Value</li> <li>Investment Related Expenses</li> </ol>		279,332.79 120,968.76 197,101.28 (37,852.14)	
	otal		559,550.69
(B) 10/01/2017 Actuarial Assets:			\$9,108,419.09
Actuarial Asset Rate of Return = 2I/(A+B-I):			6.65%
10/01/2017 Limited Actuarial Assets:			\$9,108,419.09
10/01/2017 Market Value of As	ssets:		\$9,007,999.85
Actuarial Gain/(Loss) due to Investment Return (.	Actuarial Asset Basis)		(\$113,593.00)

<sup>1</sup>Market Value Basis, net of investment related expenses.

#### CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS SEPTEMBER 30, 2017 Actuarial Asset Basis

#### REVENUES

	KEVENUE5	
Contributions:		
Member	53,435.84	
City	662,589.81	
•		
State	108,561.04	
Total Contributions		824,586.69
Earnings from Investments:		
Interest & Dividends	279,332.79	
Net Realized Gain (Loss)	120,968.76	
	197,101.28	
Change in Actuarial Value	197,101.28	
Total Earnings and Investment Gains		597,402.83
	EXPENDITURES	
Distributions to Manshauer	EAFENDITURES	
Distributions to Members:		
Benefit Payments	518,037.36	
Lump Sum DROP Distributions	0.00	
1		
Total Distributions		518,037.36
Expenses:		
*	27.052.14	
Investment related <sup>1</sup>	37,852.14	
Administrative	28,512.25	
Total Expenses		66,364.39
*		
Change in Net Assets for the Year		837,587.77
Net Assets Beginning of the Year		8,270,831.32
The research beginning of the real		0,270,001.02
Net Assets End of the Year <sup>2</sup>		9,108,419.09

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees. <sup>2</sup>Net Assets may be limited for actuarial consideration.

## DEFERRED RETIREMENT OPTION PLAN ACTIVITY October 1, 2016 to September 30, 2017

Beginning of the Year Balance	138,840.39
Plus Additions	76,331.52
Investment Return Earned	19,960.50
Less Distributions	0.00
End of the Year Balance	235,132.41

#### STATISTICAL DATA

	<u>10/1/2014</u>	<u>10/1/2015</u>	<u>10/1/2016</u>	<u>10/1/2017</u>
Actives				
Number	22	23	22	22
Average Current Age	37.2	35.4	35.8	35.9
Average Age at Employment	27.9	27.6	27.1	26.2
Average Past Service	9.3	7.8	8.7	9.7
Average Annual Salary	\$54,810	\$54,926	\$61,813	\$64,811
Service Retirees				
Number	13	14	15	15
Average Current Age	N/A	65.8	66.1	67.1
Average Annual Benefit	\$26,501	\$29,460	\$28,502	\$28,502
DROP Retirees				
Number	0	1	1	1
Average Current Age	N/A	52.9	53.9	54.9
Average Annual Benefit	N/A	\$76,332	\$76,332	\$76,332
Beneficiaries				
Number	1	1	1	1
Average Current Age	N/A	62.2	63.2	64.2
Average Annual Benefit	\$14,207	\$14,207	\$14,207	\$14,207
Disability Retirees				
Number	2	3	3	3
Average Current Age	N/A	45.6	46.6	47.6
Average Annual Benefit	\$28,426	\$25,433	\$25,433	\$25,433
Terminated Vested				
Number	16	15	15	15
Average Current Age	N/A	38.7	39.3	40.3
Average Annual Benefit <sup>1</sup>	\$13,023	\$13,023	\$12,231	\$12,231

<sup>1</sup> The Average Annual Benefit excludes participants awaiting a refund of contributions.

#### AGE AND SERVICE DISTRIBUTION

#### PAST SERVICE

A	GE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 1	9	0	0	0	0	0	0	0	0	0	0	0	0
20 - 2	4	0	0	0	0	0	0	0	0	0	0	0	0
25 - 2	9	0	1	2	1	0	4	0	0	0	0	0	8
30 - 3	4	0	0	0	0	1	1	1	0	0	0	0	3
35 - 3	9	0	0	0	0	0	0	3	1	0	0	0	4
40 - 4	4	0	0	0	0	0	0	2	0	1	0	0	3
45 - 4	.9	0	0	0	0	0	0	1	1	0	0	0	2
50 - 5	4	0	0	1	0	0	0	0	0	1	0	0	2
55 - 5	9	0	0	0	0	0	0	0	0	0	0	0	0
60 - 6	4	0	0	0	0	0	0	0	0	0	0	0	0
6	55+	0	0	0	0	0	0	0	0	0	0	0	0
T	otal	0	1	3	1	1	5	7	2	2	0	0	22

#### VALUATION PARTICIPANT RECONCILIATION

#### 1. Active lives

a. Number in prior valuation 10/1/2016	22
b. Terminations	
i. Vested (partial or full) with deferred benefits	0
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	0
e. Retired	0
f. DROP	<u>0</u>
g. Continuing participants	22
h. New entrants	<u>0</u>
i. Total active life participants in valuation	22

## 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	15	1	1	3	15	35
Retired	0	0	0	0	0	0
DROP	0	0	0	0	0	0
Vested Deferred	0	0	0	0	0	0
Death, With Survivor	0	0	0	0	0	0
Death, No Survivor	0	0	0	0	0	0
Disabled	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	0
Rehires	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0
b. Number current valuation	15	1	1	3	15	35

### SUMMARY OF CURRENT PLAN (Through Ordinance 05-24)

<u>Eligibility</u>	All regular uniformed members of the Fire Department; includes active volunteers. Optional participation for the Fire Chief.
<u>Salary</u>	Total Compensation for services rendered, including payments of accumulated leave at retirement.
Average Final Compensation (AFC)	One twelfth of the average of the 5 best years of the last 10 years of Salary (10 best of career for volunteers).
Credited Service	Years and fractional parts of years of service with the City as a Firefighter (with Member contributions when required).
Normal Retirement	
Date	The earlier of: a) age 55 and the completion of 10 years of Credited Service, or b) age 52 and the completion of 25 years of Credited Service.
Benefit	4.00% of AFC times Credited Service.
Form of Benefit	10 Year Certain and Life Annuity (options available).
Early Retirement	
Date	Age 50 and the completion of 10 years of Credited Service.
Benefit	Determined as for Normal Retirement and reduced 3.00% per year.
Form of Benefit	10 Year Certain and Life Annuity (options available).
Disability Benefit	
Eligibility	Total and permanent as determined by the Board (medical proof required).
Benefit	Benefit accrued to date of disability. Minimum benefit for Service Incurred is 65% of AFC, for Non-Service Incurred is 25% of AFC.
Duration	Payable for life, with 10 years guaranteed, or until recovery (as determined by the Board) (optional forms of income are available).

## Death Benefit

Pre-Retirement	
Not Vested	Refund of Member Contributions.
Vested	Beneficiary receives the benefit otherwise payable to the firefighter on the date the firefighter would have reached Normal or Early Retirement.
Post-Retirement	According to optional form of benefit selected.
Termination of Employment	
Less than 10 years	Refund of Member Contributions without interest.
10 or more	Refund of Contributions <u>or</u> Accrued benefit payable at retirement age.
Member Contributions	
Amount	2.00% of Salary: November 1, 2004 – October 31, 2005 3.00% of Salary: November 1, 2005 – October 31, 2006 4.00% of Salary: After October 31, 2006.
Deferred Retirement Option Plan	
Eligibility	Eligibility for Normal Retirement.
Participation	Not to exceed 60 months.
Rate of Return	At Member's election:
	(1) Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each fiscal quarter, or
	(2) Interest Rate credited to Members of the Florida Retirement System DROP, compounded monthly.
	Members may elect to change form of return once during their DROP participation.
Form of Distribution	Cash lump sum (options available).

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## STATEMENT OF FIDUCIARY NET POSITION SEPTEMBER 30, 2017

ASSETS	MARKET VALUE
Cash and Cash Equivalents: Money Market	245,301
Total Cash and Equivalents	245,301
Receivables:	
Member Contributions in Transit	6,464
City Contributions in Transit	80,109
State Contributions	108,561
Investment Income	4,003
Total Receivable	199,137
Investments: Fixed	3,276,791
Equities	5,164,343
Miscellaneaous	122,428
	122,120
Total Investments	8,563,562
	0.000.000
Total Assets	9,008,000
Total Liabilities	0
NET POSITION RESTRICTED FOR PENSIONS	9,008,000

#### STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED SEPTEMBER 30, 2017 Market Value Basis

#### **ADDITIONS**

Contributions:		
Member	53,436	
City	662,590	
State	108,561	
Total Contributions		824,587
Investment Income:		
Net Increase in Fair Value of Investments	586,423	
Interest & Dividends	279,333	
Less Investment Expense <sup>1</sup>	(37,852)	
Net Investment Income		827,904
Total Additions		1,652,491
DEDUCTIONS		
Distributions to Members:		
Benefit Payments	518,037	
Lump Sum DROP Distributions	0	
Refunds of Member Contributions	0	
Total Distributions		518,037
Administrative Expense		28,513
Total Deductions		546,550
Net Increase in Net Position		1,105,941
NET POSITION RESTRICTED FOR PENSIONS Beginning of the Year		7,902,059
End of the Year		9,008,000

<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, 2017)

#### Plan Description

#### Plan Administration

The City of Eustis Municipal Firefighters' Pension and Retirement System is a single-employer defined benefit pension Plan administered by a Board of Trustees. The Board consists of five Trustees, two of whom are appointed by the City Commission, two of whom are full-time Firefighters, elected by a majority of the Members of the Plan, and a fifth Member elected by the other four and appointed by Commission.

#### Plan Membership as of October 1, 2016:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	20
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	15
Active Plan Members	22
	57

**Benefits** Provided

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

Normal Retirement:

Date: The earlier of: a) age 55 and the completion of 10 years of Credited Service, or b) age 52 and the completion of 25 years of Credited Service.

Benefit: 4.00% of Average Final Compensation times Credited Service.

Early Retirement:

Date: Age 50 and the completion of 10 years of Credited Service.

Benefit: Determined as for Normal Retirement and reduced 3.00% per year.

Disability:

Eligibility: Total and permanent as determined by the Board (medical proof required).

Benefit: Benefit accrued to date of disability. Minimum benefit for Service Incurred is 65% of AFC, for Non-Service Incurred is 25% of AFC.

Pre-Retirement Death Benefits:

Not Vested: Refund of Member Contributions.

Vested: Beneficiary receives the benefit otherwise payable to the firefighter on the date the firefighter would have reached Normal or Early Retirement.

Termination of Employment:

Less than 10 years: Refund of Member Contributions without interest.

10 or more: Refund of Contributions or Accrued benefit payable at retirement age.

Contributions

Member Contributions:

2.00% of Salary: November 1, 2004 - October 31, 2005.

3.00% of Salary: November 1, 2005 - October 31, 2006.

4.00% of Salary: After October 31, 2006.

Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Chapter 112, Florida Statutes.

#### Investments

Investment Policy:

The following was the Board's adopted asset allocation policy as of September 30, 2017:

Asset Class	Target Allocation
Domestic Equity	45%
International Equity	15%
Domestic Fixed Income	40%
Total	100%

#### 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, 2017, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 10.48 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: Eligibility for Normal Retirement.

Participation: Not to exceed 60 months.

Rate of Return: At Member's election:

(1) Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each fiscal quarter, or

(2) Interest Rate credited to Members of the Florida Retirement System DROP, compounded monthly.

Members may elect to change form of return once during their DROP participation.

The DROP balance as September 30, 2017 is \$235,132.

# NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2017 were as follows:

Total Pension Liability	\$ 11,433,203
Plan Fiduciary Net Position	\$ (9,008,000)
Sponsor's Net Pension Liability	\$ 2,425,203
Plan Fiduciary Net Position as a percentage of Total Pension Liability	78.79%

#### Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2016 updated to September 30, 2017 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.90%
Investment Rate of Return	7.90%

#### Mortality Rate Healthy Inactive Lives:

Female: RP 2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP 2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

#### 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.

Mortality Rate 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 most recent actuarial experience study used to review the other significant assumptions was dated September 1, 2017.

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 2017 the inflation rate assumption of the investment advisor was 2.50%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2017 are summarized in the following table:

Long Term
Expected Real
Rate of Return
7.5%
8.5%
2.5%

#### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.90 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					
	1% Decrease Discount Rate			scount Rate	1% Increase 8.90%	
		6.90% 7.90%				
Sponsor's Net Pension Liability	\$	3,895,677	\$	2,425,203	\$	1,211,056

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

	09/30/2017	09/30/2016
Total Pension Liability		
Service Cost	253,518	232,480
Interest	846,338	749,472
Change in Excess State Money	-	(11,144)
Share Plan Allocation	7,266	16,556
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	99,332	507,014
Changes of assumptions	160,056	196,022
Benefit Payments, including Refunds of Employee Contributions	(518,037)	) (505,459)
Net Change in Total Pension Liability	848,473	1,184,941
Total Pension Liability - Beginning	10,584,730	9,399,789
Total Pension Liability - Ending (a)	\$ 11,433,203	\$ 10,584,730
Plan Fiduciary Net Position		
Contributions - Employer	662,590	573,724
Contributions - State	108,561	115,997
Contributions - Employee	53,436	52,516
Net Investment Income	827,904	558,655
Benefit Payments, including Refunds of Employee Contributions	(518,037)	) (505,459)
Administrative Expense	(28,513)	) (27,441)
Net Change in Plan Fiduciary Net Position	1,105,941	767,992
Plan Fiduciary Net Position - Beginning	7,902,059	7,134,067
Plan Fiduciary Net Position - Ending (b)	\$ 9,008,000	\$ 7,902,059
Net Pension Liability - Ending (a) - (b)	\$ 2,425,203	\$ 2,682,671
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	78.79%	74.66%
Covered Employee Payroll <sup>1</sup> Net Pension Liability as a percentage of Covered Employee Payroll	\$ 1,335,896 181.54%	\$ 1,312,898 204.33%

## Notes to Schedule:

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

## Changes of assumptions:

For measurement date 09/30/2017, the mortality table has changed to comply with Chapter 2015-157, Laws of Florida to be the same rates as used in the July 1, 2016 Florida Retirement System (FRS) valuation for special risk lives. Previously the July 1, 2015 FRS rates were used.

As a result of an Experience Study dated August 3, 2017, the Board approved the following assumption changes:

1.) Reduce the investment return assumption from 8.0% to 7.9% per year, net of investment related expenses.

2.) Change the assumed rate of individual salary increases from a flat 6.50% per year to a service based assumption as outlined in the "Actuarial Assumptions and Methods" section of the 10/01/2017 Valuation report.

3.) Discontinue use of the assumption that if a Member is eligible for Normal Retirement on the valuation date they will continue employment for one additional year.

4.) Change the expected rates of non-retirement terminations from an age based table to an as-sumption of 25.0% in the first year of employment, 13.0% per year during the next 4 years of employment, 9.0% for the next 5 years of employment, 5.0% for years 10 - 19, and 0.0% per year beginning at 20 years of employment.

#### Continued Changes of assumptions:

5.) The Unfunded Actuarial Accrued Liability was consolidated into one base with a 8-year level dollar amortization. All future bases of any type (gains and losses, assumption and method changes, and benefit changes) will be amortized over 15 years.

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

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

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

	(	9/30/2015	(	9/30/2014
Total Pension Liability				
Service Cost		214,156		224,459
Interest		739,529		700,345
Change in Excess State Money		-		-
Share Plan Allocation		-		-
Changes of benefit terms		-		-
Differences between Expected and Actual Experience		(379,106)		-
Changes of assumptions		-		-
Benefit Payments, including Refunds of Employee Contributions		(431,789)		(417,602)
Net Change in Total Pension Liability		142,790		507,202
Total Pension Liability - Beginning		9,256,999		8,749,797
Total Pension Liability - Ending (a)	\$	9,399,789	\$	9,256,999
Plan Fiduciary Net Position				
Contributions - Employer		470,563		319,298
Contributions - State		101,739		90,690
Contributions - Employee		48,705		46,422
Net Investment Income		(29,631)		578,075
Benefit Payments, including Refunds of Employee Contributions		(431,789)		(417,602)
Administrative Expense		(33,661)		(13,700)
Net Change in Plan Fiduciary Net Position		125,926		603,183
Plan Fiduciary Net Position - Beginning		7,008,141		6,404,958
Plan Fiduciary Net Position - Ending (b)	\$	7,134,067	\$	7,008,141
Net Pension Liability - Ending (a) - (b)	\$	2,265,722	\$	2,248,858
Plan Fiduciary Net Position as a percentage of the Total Pension Liability		75.90%		75.71%
Covered Employee Payroll <sup>1</sup> Net Pension Liability as a percentage of Covered Employee Payroll	\$	1,340,415 169.03%	\$	1,160,547 193.78%

#### **Notes to Schedule:**

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

# SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

	0	9/30/2017	0	9/30/2016	0	9/30/2015	0	9/30/2014
Actuarially Determined Contribution		730,735		636,756		540,620		417,796
Contributions in relation to the Actuarially								
Determined Contributions		763,885		678,737		572,302		417,796
Contribution Deficiency (Excess)	\$	(33,150)	\$	(41,981)	\$	(31,682)	\$	-
Covered Employee Payroll <sup>1</sup>	\$	1,335,896	\$	1,312,898	\$	1,340,415	\$	1,160,547
Contributions as a percentage of Covered								
Employee Payroll		57.18%		51.70%		42.70%		36.00%

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Notes to Schedule

Valuation Date:

10/01/2015

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:

Funding Method:	Entry Age Normal Actuarial Cost Method.
Amortization Method:	Level Percentage of Pay, Closed.
Remaining Amortization Period:	19 Years (as of 10/01/2015).
Mortality:	RP2000 Combined Healthy Table - Sex Distinct. Disableds set forward 5 years.
•	We feel this assumption sufficiently accommodates mortality improvements.
Interest Rate:	8.00% per year compounded annually, net of investment related expenses. This is
	supported by the target asset class allocation of the trust and the expected long-term
	return by asset class.
Retirement Age:	Earlier of a) Age 55 and the completion of 10 years of service, or b) Age 52 and the
<u> </u>	completion of 25 years of service. Members who are eligible to retire on the
	valuation date are assumed to work one additional year. We feel that this
	assumption is reasonable based on the plan provisions.
Early Retirement:	Commencing at eligibility for Early Retirement, members are assumed to retire with
2	an immediate benefit at the rate of 5.00% per year. We feel that this assumption is
	reasonable based on the plan provisions.
Disability Rate:	See table on following page (1205). It is assumed that 66.67% of disabilities are in
-	the line of duty. This is based on the results of an actuarial experience study issued
	June 10, 2010.
Termination Rate:	See table on following page (1304). This is based on the results of an actuarial
	experience study issued June 10, 2010.
Salary Increases:	6.50% per year until the assumed retirement age; see table below. Projected benefit
·	is also increased by 5.00% to account for non-regular compensation. This is based
	on the results of an actuarial experience study issued June 10, 2010.
Payroll Growth:	Up to 5.00% per year (4.21% for 10/1/2015 Valuation).
Asset Valuation Method:	Each year, the prior Actuarial Value of Assets is brought forward utilizing the
	historical geometric 4-year average Market Value return. It is possible that over
	time this technique will produce an insignificant bias above or below Market Value.
	1 1 6

Termination and Disability Rate Table:

		% Becoming	
		Disabled	% Terminating
		During the	During the
	Age	Year	Year
_	20	0.14%	14.00%
	30	0.18%	10.70%
	40	0.30%	7.70%
	50	1.00%	1.75%

# SCHEDULE OF INVESTMENT RETURNS Last 10 Fiscal Years

	09/30/2017	09/30/2016	09/30/2015	09/30/2014
Annual Money-Weighted Rate of Return				
Net of Investment Expense	10.48%	7.83%	-0.42%	9.07%

# NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2017)

#### General Information about the Pension Plan

Plan Description

The City of Eustis Municipal Firefighters' Pension and Retirement System is a single-employer defined benefit pension Plan administered by a Board of Trustees. The Board consists of five Trustees, two of whom are appointed by the City Commission, two of whom are full-time Firefighters, elected by a majority of the Members of the Plan, and a fifth Member elected by the other four and appointed by Commission.

All regular uniformed members of the Fire Department, including active volunteers, participate as a condition of employment (optional for the Fire Chief).

#### Plan Membership as of October 1, 2016:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	20
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	15
Active Plan Members	22
	57

Benefits Provided

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

Normal Retirement:

Date: The earlier of: a) age 55 and the completion of 10 years of Credited Service, or b) age 52 and the completion of 25 years of Credited Service.

Benefit: 4.00% of Average Final Compensation times Credited Service.

Early Retirement:

Date: Age 50 and the completion of 10 years of Credited Service.

Benefit: Determined as for Normal Retirement and reduced 3.00% per year.

**Disability**:

Eligibility: Total and permanent as determined by the Board (medical proof required).

Benefit: Benefit accrued to date of disability. Minimum benefit for Service Incurred is 65% of AFC, for Non-Service Incurred is 25% of AFC.

Pre-Retirement Death Benefits:

Not Vested: Refund of Member Contributions.

Vested: Beneficiary receives the benefit otherwise payable to the firefighter on the date the firefighter would have reached Normal or Early Retirement.

Termination of Employment:

Less than 10 years: Refund of Member Contributions without interest.

10 or more: Refund of Contributions or Accrued benefit payable at retirement age.

Contributions

Member Contributions:

2.00% of Salary: November 1, 2004 - October 31, 2005.

3.00% of Salary: November 1, 2005 - October 31, 2006.

4.00% of Salary: After October 31, 2006.

Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Chapter 112, Florida Statutes.

#### Net Pension Liability

The measurement date is September 30, 2017. The measurement period for the pension expense was October 1, 2016 to September 30, 2017. The reporting period is October 1, 2016 through September 30, 2017.

The Sponsor's Net Pension Liability was measured as of September 30, 2017. 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, 2016 updated to September 30, 2017 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.90%
Investment Rate of Return	7.90%

#### Mortality Rate Healthy Inactive Lives:

Female: RP 2000 Generational, 100% Annuitant White Collar, Scale BB. Male: RP 2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

#### 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.

#### Mortality Rate 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 most recent actuarial experience study used to review the other significant assumptions was dated September 1, 2017.

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 2017 the inflation rate assumption of the investment advisor was 2.50%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2017 are summarized in the following table:

		Long Term Expected
Asset Class	Target Allocation	Real Rate of Return
Domestic Equity	45%	7.50%
International Equity	15%	8.50%
Domestic Fixed Income	40%	2.50%
Total	100%	

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.90 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		Plan Fiduciary		Net Pension	
		Liability	Net Position			Liability
		(a)		(b)		(a)-(b)
Balances at September 30, 2016	\$	10,584,730	\$	7,902,059	\$	2,682,671
Changes for a Year:						
Service Cost		253,518		-		253,518
Interest		846,338		-		846,338
Share Plan Allocation		7,266		-		7,266
Differences between Expected and Actual Experience		99,332		-		99,332
Changes of assumptions		160,056		-		160,056
Changes of benefit terms		-		-		-
Contributions - Employer		-		662,590		(662,590)
Contributions - State		-		108,561		(108,561)
Contributions - Employee		-		53,436		(53,436)
Net Investment Income		-		827,904		(827,904)
Benefit Payments, including Refunds of Employee Contributions		(518,037)		(518,037)		-
Administrative Expense		-		(28,513)		28,513
Net Changes		848,473		1,105,941		(257,468)
Balances at September 30, 2017	\$	11,433,203	\$	9,008,000	\$	2,425,203

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

	Current Discount					
	1% Decrease		Rate		1% Increase	
		6.90%		7.90%		8.90%
Sponsor's Net Pension Liability	\$	3,895,677	\$	2,425,203	\$	1,211,056

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, 2017, the Sponsor will recognize a Pension Expense of \$671,209. On September 30, 2017, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Οι	Deferred utflows of esources	In	eferred flows of esources
Differences between Expected and Actual Experience Changes of assumptions		328,007 218,054		94,777
Net difference between Projected and Actual Earnings on Pension Plan investments Total	\$	103,173 649,234	\$	94.777

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:	
2018	\$ 232,296
2019	\$ 327,073
2020	\$ 32,012
2021	\$ (36,924)
2022	\$ -
Thereafter	\$ -

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

	09/30/2017	09/30/2016
Total Pension Liability		
Service Cost	253,518	232,480
Interest	846,338	749,472
Change in Excess State Money	-	(11,144)
Share Plan Allocation	7,266	16,556
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	99,332	507,014
Changes of assumptions	160,056	196,022
Benefit Payments, including Refunds of Employee Contributions	(518,037)	(505,459)
Net Change in Total Pension Liability	848,473	1,184,941
Total Pension Liability - Beginning	10,584,730	9,399,789
Total Pension Liability - Ending (a)	\$ 11,433,203	\$ 10,584,730
Plan Fiduciary Net Position		
Contributions - Employer	662,590	573,724
Contributions - State	108,561	115,997
Contributions - Employee	53,436	52,516
Net Investment Income	827,904	558,655
Benefit Payments, including Refunds of Employee Contributions	(518,037)	(505,459)
Administrative Expense	(28,513)	(27,441)
Net Change in Plan Fiduciary Net Position	1,105,941	767,992
Plan Fiduciary Net Position - Beginning	7,902,059	7,134,067
Plan Fiduciary Net Position - Ending (b)	\$ 9,008,000	\$ 7,902,059
Net Pension Liability - Ending (a) - (b)	\$ 2,425,203	\$ 2,682,671
Dise Diduction Met Decision of a consentance of the Total Decision I (d. 1).	70 700/	74 6604
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	78.79%	74.66%
Covered Employee Payroll <sup>1</sup>	\$ 1,335,896	\$ 1,312,898
Net Pension Liability as a percentage of Covered Employee Payroll	181.54%	204.33%

#### Notes to Schedule:

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

#### Changes of assumptions:

For measurement date 09/30/2017, the mortality table has changed to comply with Chapter 2015-157, Laws of Florida to be the same rates as used in the July 1, 2016 Florida Retirement System (FRS) valuation for special risk lives. Previously the July 1, 2015 FRS rates were used.

As a result of an Experience Study dated August 3, 2017, the Board approved the following assumption changes:

1.) Reduce the investment return assumption from 8.0% to 7.9% per year, net of investment related expenses.

2.) Change the assumed rate of individual salary increases from a flat 6.50% per year to a service based assumption as outlined in the "Actuarial Assumptions and Methods" section of the 10/01/2017 Valuation report.

3.) Discontinue use of the assumption that if a Member is eligible for Normal Retirement on the valuation date they will continue employment for one additional year.

4.) Change the expected rates of non-retirement terminations from an age based table to an as-sumption of 25.0% in the first year of employment, 13.0% per year during the next 4 years of employment, 9.0% for the next 5 years of employment, 5.0% for years 10 - 19, and 0.0% per year beginning at 20 years of employment.

#### Continued Changes of assumptions:

5.) The Unfunded Actuarial Accrued Liability was consolidated into one base with a 8-year level dollar amortization. All future bases of any type (gains and losses, assumption and method changes, and benefit changes) will be amortized over 15 years.

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

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

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

Total Pension LiabilityService Cost214,156224,459	
Service Cost 214 156 224 450	
	5
Interest 739,529 700,34	5
Change in Excess State Money	
Share Plan Allocation	
Changes of benefit terms	
Differences between Expected and Actual Experience (379,106) -	
Changes of assumptions	
Benefit Payments, including Refunds of Employee Contributions(431,789)(417,602)	2)
Net Change in Total Pension Liability142,790507,202	2
Total Pension Liability - Beginning9,256,9998,749,797	7
Total Pension Liability - Ending (a)         \$ 9,399,789         \$ 9,256,999	9
	_
Plan Fiduciary Net Position	
Contributions - Employer 470,563 319,295	8
Contributions - State 101,739 90,69	0
Contributions - Employee 48,705 46,422	2
Net Investment Income         (29,631)         578,075	5
Benefit Payments, including Refunds of Employee Contributions (431,789) (417,602)	2)
Administrative Expense (33,661) (13,70	0)
Net Change in Plan Fiduciary Net Position125,926603,183	3
Plan Fiduciary Net Position - Beginning7,008,1416,404,958	8
Plan Fiduciary Net Position - Ending (b)         \$ 7,134,067         \$ 7,008,141	1
	—
Net Pension Liability - Ending (a) - (b)         \$ 2,265,722         \$ 2,248,855	8
	_
Plan Fiduciary Net Position as a percentage of the Total Pension Liability 75.90% 75.71	%
Covered Employee Payroll <sup>1</sup> \$ 1,340,415         \$ 1,160,54'	7
Net Pension Liability as a percentage of Covered Employee Payroll169.03%193.78	%

#### **Notes to Schedule:**

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

# SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

	0	9/30/2017	0	9/30/2016	0	9/30/2015	0	9/30/2014
Actuarially Determined Contribution		730,735		636,756		540,620		417,796
Contributions in relation to the								
Actuarially Determined Contributions		763,885		678,737		572,302		417,796
Contribution Deficiency (Excess)	\$	(33,150)	\$	(41,981)	\$	(31,682)	\$	-
Covered Employee Payroll <sup>1</sup>	\$	1,335,896	\$	1,312,898	\$	1,340,415	\$	1,160,547
Contributions as a percentage of								
Covered Employee Payroll		57.18%		51.70%		42.70%		36.00%

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

#### Notes to Schedule

Valuation Date:

10/01/2015

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:

Funding Method:	Entry Age Normal Actuarial Cost Method.
Amortization Method:	Level Percentage of Pay, Closed.
Remaining Amortization Period:	19 Years (as of 10/01/2015).
Mortality:	RP2000 Combined Healthy Table - Sex Distinct. Disableds set forward 5 years. We feel this assumption sufficiently accommodates mortality improvements.
Interest Rate:	8.00% per year compounded annually, net of investment related expenses. This is supported by the target asset class allocation of the trust and the expected long-term return by asset class.
Retirement Age:	Earlier of a) Age 55 and the completion of 10 years of service, or b) Age 52 and the completion of 25 years of service. Members who are eligible to retire on the valuation date are assumed to work one additional year. We feel that this assumption is reasonable based on the plan provisions.
Early Retirement:	Commencing at eligibility for Early Retirement, members are assumed to retire with an immediate benefit at the rate of 5.00% per year. We feel that this assumption is reasonable based on the plan provisions.
Disability Rate:	See table on following page (1205). It is assumed that 66.67% of disabilities are in the line of duty. This is based on the results of an actuarial experience study issued June 10, 2010.
Termination Rate:	See table on following page (1304). This is based on the results of an actuarial experience study issued June 10, 2010.
Salary Increases:	6.50% per year until the assumed retirement age; see table below. Projected benefit is also increased by 5.00% to account for non-regular compensation. This is based on the results of an actuarial experience study issued June 10, 2010.
Payroll Growth:	Up to 5.00% per year (4.21% for 10/1/2015 Valuation).
Asset Valuation Method:	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

Termination and Disability Rate Table:

:		% Becoming Disabled	% Terminating During the
	Age	During the	Year
	20	0.14%	14.00%
	30	0.18%	10.70%
	40	0.30%	7.70%
	50	1.00%	1.75%

# COMPONENTS OF PENSION EXPENSE FISCAL YEAR SEPTEMBER 30, 2017

		et Pension Liability		Deferred Inflows		Deferred Outflows	Pension Expense
Beginning balance	\$	2,682,671	\$	189,554	\$	901,537	\$ -
Total Pension Liability Factors:							
Service Cost		253,518		-		-	253,518
Interest		846,338		-		-	846,338
Share Plan Allocation		7,266		-		-	7,266
Changes in benefit terms		-		-		-	-
Differences between Expected and Actual Experience							
with regard to economic or demographic assumptions		99,332		-		99,332	-
Current year amortization of experience difference		-		(94,777)		(151,586)	56,809
Change in assumptions about future economic or							
demographic factors or other inputs		160,056		-		160,056	-
Current year amortization of change in assumptions		-		-		(89,019)	89,019
Benefit Payments, including Refunds of Employee							
Contributions		(518,037)		-		-	-
Net change		848,473		(94,777)		18,783	 1,252,950
Plan Fiduciary Net Position:							
Contributions - Employer		662,590		-		-	-
Contributions - State		108,561		-		-	-
Contributions - Employee		53,436		-		-	(53,436)
Projected Net Investment Income		643,286		-		-	(643,286)
Difference between projected and actual earnings on							
Pension Plan investments		184,618		184,618		-	-
Current year amortization		-		(36,922)		(123,390)	86,468
Benefit Payments, including Refunds of Employee							
Contributions		(518,037)		-		-	-
Administrative Expenses		(28,513)		-		-	28,513
Net change		1,105,941		147,696		(123,390)	 (581,741)
	*	2 425 202	<b>_</b>	242.472	<u>_</u>		 (81.200
Ending Balance	\$	2,425,203	\$	242,473	\$	796,930	\$ 671,209

#### 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

	Dif	ferences Between																		
Plan Year	Pro	jected and Actual	Recognition																	
Ending		Earnings	Period (Years)	2017	2018	2019	2020	2021	2022		202	3	2024		2025		2026		202	27
2015	\$	596,505	5	\$ 119,301	\$ 119,301	\$ 119,301	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
2016	\$	20,444	5	\$ 4,089	\$ 4,089	\$ 4,089	\$ 4,089	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
2017	\$	(184,618)	5	\$ (36,922)	\$ (36,924)	\$ (36,924)	\$ (36,924)	\$ (36,924)	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Net Increas	e (De	crease) in Pension	Expense	\$ 86,468	\$ 86,466	\$ 86,466	\$ (32,835)	\$ (36,924)	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

## 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)		2017		2018	2019	2020		2021		2022			2023	2024		2	2025		2026		20	27	
2016 2017	\$ \$	196,022 160,056	4 4	\$ \$	49,005 40,014	÷	49,006 40,014	49,006 40,014	- 40,014	\$ \$		-	-	-	\$ \$	- \$ - \$		-	\$ \$		- \$ - \$		-	\$ \$	-	
Net Increase	(De	ecrease) in Pension	Expense	\$	89,019	\$	89,020	\$ 89,020	\$ 40,014	\$		-	\$	-	\$	- \$		-	\$		. \$		-	\$	-	-

#### AMORTIZATON SCHEDULE - EXPERIENCE

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

	Dif	ferences Between																				
Plan Year	Exp	pected and Actual	Recognition																			
Ending		Experience	Period (Years)	2017	2018	2019	2020	2021		2	2022		2	2023	2024		2025		2026		2027	
2015	\$	(379,106)	4	\$ (94,777)	\$ (94,777)	\$ -	\$ -	\$	-	\$		-	\$	- 5	5	-	\$	-	\$	-	\$	-
2016	\$	507,014	4	\$ 126,753	\$ 126,754	\$ 126,754	\$ -	\$	-	\$		-	\$	- 5	5	-	\$	-	\$	-	\$	-
2017	\$	99,332	4	\$ 24,833	\$ 24,833	\$ 24,833	\$ 24,833	\$	-	\$		-	\$	- 5	3	-	\$	-	\$	-	\$	-
Net Increas	e (De	ecrease) in Pension	Expense	\$ 56,809	\$ 56,810	\$ 151,587	\$ 24,833	\$	-	\$		-	\$	- 9	5	-	\$	-	\$	-	\$	-