

February 12, 2020

Board of Trustees
City of Ocala General Employees' Retirement System
Pension Office
2100 NE 30 Ave. Building E
Ocala, FL 34470

RE: GASB Statement No.67 and No.68 – City of Ocala General Employees' Retirement System

Dear Board:

We are pleased to present to the Board a GASB Statement No.67 and No.68 measured as of September 30, 2019 for the City of Ocala General Employees' Retirement System.

The calculation of the liability associated with the benefits referenced in this report was performed for the purpose of satisfying the requirements of GASB No.67 and No.68 and is not applicable for other purposes, such as determining the plan's funding requirements. A calculation of the plan's liability for other purposes may produce significantly different results.

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

Certain schedules should include a 10-year history of information. As provided for in GASB No.67 and No.68, this historical information is only presented for the years in which the information was measured in conformity with the requirements of GASB No.67 and No.68.

To the best of our knowledge, these statements are complete and accurate and are in accordance with generally recognized actuarial practices and methods. 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.

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: _____



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

Enclosures

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2019

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Prepaid Expenses	2,937
Money Market	2,863,662
Cash	1,166,606
Total Cash and Equivalents	4,033,205
Receivables:	
Reimbursement from General Employee	5,410
From Broker for Investments Sold	42,914
Investment Income	18,726
Total Receivable	67,050
Investments:	
Stocks	19,217,535
Mutual Funds:	
Fixed Income	27,799,717
Equity	54,827,709
Pooled/Common/Commingled Funds:	
Hedge	7,083,585
Equity	27,805,322
Real Estate	19,141,150
Total Investments	155,875,018
Total Assets	159,975,273
<u>LIABILITIES</u>	
Payables:	
Benefit Payments	3,013
Investment Expenses	35,146
Administrative Expenses	5,795
Due to Marion Cty Custodial Correction	6,577
To Broker for Investments Purchased	34,527
Total Liabilities	85,058
NET POSITION RESTRICTED FOR PENSIONS	159,890,215

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

ADDITIONS

Contributions:

Member	540,161	
City	14,894,139	
Total Contributions		15,434,300
Investment Income:		
Net Increase in Fair Value of Investments	2,015,326	
Interest & Dividends	2,905,690	
Less Investment Expense ¹	(747,549)	
Net Investment Income		4,173,467
Total Additions		19,607,767

DEDUCTIONS

Distributions to Members:

Benefit Payments	11,966,911	
Lump Sum DROP Distributions	727,867	
Lump Sum PLOP Distributions	492,789	
Refunds of Member Contributions	4,888	
Total Distributions		13,192,455
Administrative Expense		204,769
Total Deductions		13,397,224
Net Increase in Net Position		6,210,543
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		153,679,672
End of the Year		159,890,215

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

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

Plan Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees. The Board shall consist of five (5) Trustees, three (3) of whom, unless otherwise prohibited by law, shall be appointed by the Ocala City Council, and two (2) of whom shall be Members of the System, who shall be elected by a majority of General Employees who are Members of the System.

Plan Membership as of October 1, 2018:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	755
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	303
Active Plan Members	194
	1,252

Benefits Provided

The Plan provides retirement, termination, disability and death benefits. A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for City of Ocala General Employees' Pension Plan prepared by Foster & Foster Actuaries and Consultants.

Contributions

Members: 8.18% of Salary, beginning October 1, 2008.
City: Remaining amount necessary to pay the Normal Cost and fund the accrued, past service liability as provided in Part VII of Chapter 112, Florida Statutes.

Investments

Investment Policy:

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

Asset Class	Target Allocation
US Equity	20.00%
Developed Non US Equity	12.00%
Emerging Non US Equity	10.00%
Fixed Income	32.00%
Hedge Fund of Funds	13.50%
Real Estate	12.50%
Total	100.00%

Concentrations:

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

Rate of Return:

For the year ended September 30, 2019, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 2.59 percent.

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

Deferred Retirement Option Program

Eligibility: Satisfaction of Normal Retirement requirements (earlier of (1) Age 65 and 5 years of Credited Service, or (2) 30 years of Credited Service, regardless of age).

Participation: Not to exceed 96 months (60 months for Members entering DROP after January 31, 2011).

Rate of Return: 6.5% or actual net rate of investment return (total return net of brokerage commissions and transaction costs) credited each fiscal quarter.

The DROP balance as September 30, 2019 is \$3,170,897.

NET PENSION LIABILITY OF THE SPONSOR

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

Total Pension Liability	\$ 234,936,251
Plan Fiduciary Net Position	\$ (159,890,215)
Sponsor's Net Pension Liability	\$ 75,046,036
Plan Fiduciary Net Position as a percentage of Total Pension Liability	68.06%

Actuarial Assumptions:

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

Inflation	2.00%
Salary Increases	Service based
Discount Rate	7.00%
Investment Rate of Return	7.00%

Mortality Rate Healthy Active Lives:

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

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

Mortality Rate Healthy Active Lives:

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

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

Mortality Rate Disabled Lives:

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

Male: 100% RP2000 Disabled Male setback four years.

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

The most recent actuarial experience study used to review the other significant assumptions was dated May 5, 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 2019 the inflation rate assumption of the investment advisor was 2.00%.

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

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

Asset Class	Long Term Expected Real Rate of Return ¹
US Equity	6.16%
Developed Non US Equity	6.69%
Emerging Non US Equity	9.47%
Fixed Income	1.89%
Hedge Fund of Funds	3.68%
Real Estate	4.58%

¹ Please note that long term expected return of the total portfolio is greater than simply multiplying each of the above “Long Term Expected Real Rate of Returns” by their target allocation % and adding them together. Not only is the time horizon longer for an actuarial valuation relative to the time horizon over which the above projected returns were generated, but also there is an additional correlation resulting from a diversified portfolio that will provide additional returns.

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Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.00 percent.

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

	1% Decrease 6.00%	Current Discount Rate 7.00%	1% Increase 8.00%
Sponsor's Net Pension Liability	\$ 103,585,840	\$ 75,046,036	\$ 51,415,271

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

	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	1,133,206	1,288,820	1,567,489
Interest	15,765,056	15,359,295	14,832,634
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	552,340	2,072,529	1,126,640
Changes of assumptions	-	-	3,182,088
Contributions - Buy Back	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(13,192,455)	(12,344,439)	(13,468,466)
Net Change in Total Pension Liability	4,258,147	6,376,205	7,240,385
Total Pension Liability - Beginning	230,678,104	224,301,899	217,061,514
Total Pension Liability - Ending (a)	<u>\$234,936,251</u>	<u>\$ 230,678,104</u>	<u>\$ 224,301,899</u>
Plan Fiduciary Net Position			
Contributions - Employer	14,894,139	15,482,762	14,802,319
Contributions - Employee	540,161	608,171	740,871
Contributions - Buy Back	-	-	-
Net Investment Income	4,173,467	6,324,077	13,427,988
Benefit Payments, including Refunds of Employee Contributions	(13,192,455)	(12,344,439)	(13,468,466)
Administrative Expense	(204,769)	(225,097)	(224,873)
Net Change in Plan Fiduciary Net Position	6,210,543	9,845,474	15,277,839
Plan Fiduciary Net Position - Beginning	153,679,672	143,834,198	128,556,359
Plan Fiduciary Net Position - Ending (b)	<u>\$159,890,215</u>	<u>\$ 153,679,672</u>	<u>\$ 143,834,198</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 75,046,036</u>	<u>\$ 76,998,432</u>	<u>\$ 80,467,701</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	68.06%	66.62%	64.13%
Covered Payroll ¹	\$ 10,785,500	\$ 11,804,951	\$ 13,747,075
Net Pension Liability as a percentage of Covered Payroll	695.80%	652.26%	585.34%

Notes to Schedule:

¹ The Covered Payroll numbers shown are in compliance with GASB 82.

Changes of benefit terms:

For measurement date 09/30/2017, Ordinance 2018-8 was adopted which restated the plan and made some changes that had no actuarial impact.

Changes of assumptions:

For measurement date 09/30/2017, as a result of the May 5, 2017 actuarial experience study, the following changes were made:

- Salary increases were changed from 6.0% for the first 10 years and 5% thereafter to rates grading from 14% to 3.5% based on service.
- Mortality rates were changed to the same as used in the July 1, 2016 Florida Retirement System valuation report for non-special risk lives.
- Withdrawal rates were changed from age based rates to service based rates ranging from 20% to 4%.
- Early retirement rates were changed from a flat 2.0% to rates based on age and service.
- Normal retirement rates were amended to be 50% at age 65, 33% at age 66 and 67 and 100% at age 68+. Retirement rates of 100% upon completion of 30 years of Credited Service.

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

	<u>09/30/2016</u>	<u>09/30/2015</u>
Total Pension Liability		
Service Cost	1,852,029	1,955,680
Interest	14,160,117	13,857,718
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	1,198,983	1,329,173
Changes of assumptions	5,202,901	-
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	<u>(11,575,745)</u>	<u>(13,862,112)</u>
Net Change in Total Pension Liability	10,838,285	3,280,459
Total Pension Liability - Beginning	<u>206,223,229</u>	<u>202,942,770</u>
Total Pension Liability - Ending (a)	<u><u>\$217,061,514</u></u>	<u><u>\$206,223,229</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	14,187,965	13,053,609
Contributions - Employee	574,059	584,624
Contributions - Buy Back	-	-
Net Investment Income	10,585,043	(2,523,690)
Benefit Payments, including Refunds of Employee Contributions	(11,575,745)	(13,862,112)
Administrative Expense	<u>(225,101)</u>	<u>(172,861)</u>
Net Change in Plan Fiduciary Net Position	13,546,221	(2,920,430)
Plan Fiduciary Net Position - Beginning	<u>115,010,138</u>	<u>117,930,568</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$128,556,359</u></u>	<u><u>\$115,010,138</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 88,505,155</u></u>	<u><u>\$ 91,213,091</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	59.23%	55.77%
Covered Payroll ¹	\$ 14,722,210	\$ 21,970,446
Net Pension Liability as a percentage of Covered Payroll	601.17%	415.16%

Notes to Schedule:

¹ The Covered Payroll numbers shown are in compliance with GASB 82.

Changes of assumptions:

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.

Additionally, the inflation assumption rate was lowered from 3.00% to 2.00%, 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

	<u>09/30/2014</u>	<u>09/30/2013</u>
Total Pension Liability		
Service Cost	2,122,184	2,050,270
Interest	13,643,262	13,441,073
Changes of benefit terms	(1,321,935)	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	-	-
Contributions - Buy Back	114,387	-
Benefit Payments, including Refunds of Employee Contributions	(11,437,247)	(11,268,573)
Net Change in Total Pension Liability	<u>3,120,651</u>	<u>4,222,770</u>
Total Pension Liability - Beginning	<u>199,822,119</u>	<u>195,599,349</u>
Total Pension Liability - Ending (a)	<u><u>\$202,942,770</u></u>	<u><u>\$199,822,119</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	10,253,005	10,411,010
Contributions - Employee	675,791	2,175,515
Contributions - Buy Back	114,387	-
Net Investment Income	10,569,771	14,195,919
Benefit Payments, including Refunds of Employee Contributions	(11,437,247)	(11,268,573)
Administrative Expense	(159,258)	(184,066)
Net Change in Plan Fiduciary Net Position	<u>10,016,449</u>	<u>15,329,805</u>
Plan Fiduciary Net Position - Beginning	<u>107,914,119</u>	<u>92,584,314</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$117,930,568</u></u>	<u><u>\$107,914,119</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 85,012,202</u></u>	<u><u>\$ 91,908,001</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	58.11%	54.01%
Covered Payroll	N/A	N/A
Net Pension Liability as a percentage of Covered Payroll	N/A	N/A

Notes to Schedule:*Changes of benefit terms:*

For measurement date 09/30/2014, amounts reported as changes of benefit terms were resulted from lowering the variable multiplier from 1.60% to 1.30%. Ordinance 2014-42 was adopted which clarifies some features of the variable benefit plan.

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 ¹	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 14,820,286	\$ 14,894,139	\$ (73,853)	\$ 10,785,500	138.09%
09/30/2018	\$ 15,254,002	\$ 15,482,762	\$ (228,760)	\$ 11,804,951	131.15%
09/30/2017	\$ 14,802,319	\$ 14,802,319	\$ -	\$ 13,747,075	107.68%
09/30/2016	\$ 14,186,322	\$ 14,187,965	\$ (1,643)	\$ 14,722,210	96.37%
09/30/2015	\$ 13,053,609	\$ 13,053,609	\$ -	\$ 21,970,446	59.41%
09/30/2014	\$ 10,253,005	\$ 10,253,005	\$ -	\$ 15,593,924	65.75%
09/30/2013	\$ 10,411,010	\$ 10,411,010	\$ -	\$ 25,044,526	41.57%

¹ The Covered Payroll numbers shown are in compliance with GASB 82.

Notes to Schedule

Valuation Date: 10/01/2017

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

Methods and assumptions used to determine contribution rates:

Mortality:

Healthy Active Lives:

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

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

Healthy Inactive Lives:

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

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

Disabled Lives:

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

Male: 100% RP2000 Disabled Male setback four years.

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

Normal Retirement:

<u>Age</u>	<u>Probability of Retirement</u>
65	40%
66	40%
67	100%

Members with at least 30 years of Credited Service are assumed to retire immediately. This assumption was adopted based on the May 5, 2017 actuarial valuation report.

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Early Retirement:	<u>25 or more Years of Credited</u>		<u>Less than 25 Years of Credited</u>	
	<u>Service</u>		<u>Service</u>	
	<u>Credited</u>			
	<u>Service</u>	<u>Assumption</u>	<u>Age</u>	<u>Assumption</u>
	25	10.50%	55-60	5.75%
	26	5.50%	61	6.50%
	27	11.50%	62	12.00%
	28	7.50%	63	5.00%
	29	4.00%	64	3.00%

This assumption was adopted based on the May 5, 2017 actuarial valuation report.

Interest Rate: 7.0% per year, compounded annually, net of investment related expenses. The interest rate is mandated by Ordinance 2013-48.

Salary Increases:	<u>Service</u>	<u>Increase</u>
	0	14.0%
	1-2	6.5%
	3-4	5.5%
	5-14	4.5%
	15-24	3.5%
	25+	4.5%

This assumption was adopted based on the May 5, 2017 actuarial experience study.

Payroll Increase: None.
 Amortization Method: All future bases amortized over layered 10-year periods as set forth in Ordinance 2013-48.
 Remaining Amortization Period: 20 Years (as of 10/01/2017 valuation).

Funding Method: Entry Age Normal Actuarial Cost Method. The following loads are applied for determination of the Sponsor funding requirement:
 Interest – half a year based on the 7.0% assumption.
 Salary – a full year based on the current average assumption of 4.1%.

Asset Smoothing Methodology: The Actuarial Value of Assets is based upon a 5-year straight line recognition of the difference between expected earnings on the net market value of assets and actual earnings on the net market value of assets. The net market value of assets shall be the total fiduciary net position as defined by GASB 67/68, excluding any reserves held which are not designated for currently adopted plan benefits valued as part of the plan liabilities. The resulting value shall be adjusted if it does not fall between 120% and 80% of the market value of assets. This change shall be made assuming that this 5-year recognition method applies to differences between the expected and actual investment returns for the years ending September 30, 2009 and later. This method is mandated by Ordinance 2013-48.

Disability Rates:	<u>% Becoming Disabled During the</u>	
	<u>Age</u>	<u>Year</u>
	20	0.051%
	30	0.058%
	40	0.121%
	50	0.429%
	60	1.611%

Termination Rates:	<u>Service</u>	<u>Termination Rate</u>
	0	20.00%
	1-4	15.00%
	5-9	7.50%
	10-19	4.00%
	20+	6.50%

These rates were adopted based on the May 5, 2017 actuarial experience study.

SCHEDULE OF INVESTMENT RETURNS
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2019	2.59%
09/30/2018	4.41%
09/30/2017	10.46%
09/30/2016	9.08%
09/30/2015	-2.14%
09/30/2014	9.86%
09/30/2013	15.20%

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2020)

General Information about the Pension Plan

Plan Description

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees. The Board shall consist of five (5) Trustees, three (3) of whom, unless otherwise prohibited by law, shall be appointed by the Ocala City Council, and two (2) of whom shall be Members of the System, who shall be elected by a majority of General Employees who are Members of the System as of the Effective Date, and all future new General Employees, shall become Members of this System as a condition of employment. All Members who are employed and not participating in the DROP on September 30, 2013 and do not fall in the Grandfathered group (see below) shall earn benefits for credited service on and after October 1, 2013 in accordance with the variable benefit and contribution program.

Plan Membership as of October 1, 2018:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	755
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	303
Active Plan Members	194
	1,252

Benefits Provided

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

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

Contributions

Members: 8.18% of Salary, beginning October 1, 2008.

City: Remaining amount necessary to pay the Normal Cost and fund the accrued, past service liability as provided in Part VII of Chapter 112, Florida Statutes.

Net Pension Liability

The measurement date is September 30, 2019.

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

The reporting period is October 1, 2019 through September 30, 2020.

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

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

Actuarial Assumptions:

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

Inflation	2.00%
Salary Increases	Service based
Discount Rate	7.00%
Investment Rate of Return	7.00%

Mortality Rate Healthy Active Lives:

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

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

Mortality Rate Healthy Active Lives:

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

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

Mortality Rate Disabled Lives:

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

Male: 100% RP2000 Disabled Male setback four years.

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

The most recent actuarial experience study used to review the other significant assumptions was dated May 5, 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 2019 the inflation rate assumption of the investment advisor was 2.00%.

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

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

Asset Class	Target Allocation	Long Term Expected Real Rate of Return ¹
US Equity	20.00%	6.16%
Developed Non US Equity	12.00%	6.69%
Emerging Non US Equity	10.00%	9.47%
Fixed Income	32.00%	1.89%
Hedge Fund of Funds	13.50%	3.68%
Real Estate	12.50%	4.58%
Total	100.00%	

¹ Please note that long term expected return of the total portfolio is greater than simply multiplying each of the above “Long Term Expected Real Rate of Returns” by their target allocation % and adding them together. Not only is the time horizon longer for an actuarial valuation relative to the time horizon over which the above projected returns were generated, but also there is an additional correlation resulting from a diversified portfolio that will provide additional returns.

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.00 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)
Reporting Period Ending September 30, 2019	\$ 230,678,104	\$ 153,679,672	\$ 76,998,432
Changes for a Year:			
Service Cost	1,133,206	-	1,133,206
Interest	15,765,056	-	15,765,056
Differences between Expected and Actual Experience	552,340	-	552,340
Changes of assumptions	-	-	-
Changes of benefit terms	-	-	-
Contributions - Employer	-	14,894,139	(14,894,139)
Contributions - State	-	-	-
Contributions - Employee	-	540,161	(540,161)
Net Investment Income	-	4,173,467	(4,173,467)
Benefit Payments, including Refunds of Employee Contributions	(13,192,455)	(13,192,455)	-
Administrative Expense	-	(204,769)	204,769
Net Changes	4,258,147	6,210,543	(1,952,396)
Reporting Period Ending September 30, 2020	\$ 234,936,251	\$ 159,890,215	\$ 75,046,036

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.00%	7.00%	8.00%
Sponsor's Net Pension Liability	\$ 103,585,840	\$ 75,046,036	\$ 51,415,271

Pension Plan Fiduciary Net Position.

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

**FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED
INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2019**

For the year ended September 30, 2019, the Sponsor has recognized a Pension Expense of \$10,224,501.

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	1,036,265	-
Changes of assumptions	-	-
Net difference between Projected and Actual Earnings on Pension Plan investments	1,656,185	-
Employer contributions subsequent to the measurement date	14,894,139	-
Total	\$ 17,586,589	\$ -

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer contributions subsequent to the measurement date was recognized as a reduction of the Net Pension Liability in the year ended September 30, 2019.

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

Year ended September 30:		
2020	\$	2,603,769
2021	\$	(585,485)
2022	\$	(99,347)
2023	\$	773,513
2024	\$	-
Thereafter	\$	-

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2020**

For the year ended September 30, 2020, the Sponsor will recognize a Pension Expense of \$9,945,014.

On September 30, 2020, 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	276,170	-
Changes of assumptions	-	-
Net difference between Projected and Actual Earnings on Pension Plan investments	5,413,009	-
Employer contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ -

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2020.

Other 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:	
2021	\$ 1,021,767
2022	\$ 1,231,735
2023	\$ 2,104,595
2024	\$ 1,331,082
2025	\$ -
Thereafter	\$ -

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2020 09/30/2019	09/30/2019 09/30/2018	09/30/2018 09/30/2017
Total Pension Liability			
Service Cost	1,133,206	1,288,820	1,567,489
Interest	15,765,056	15,359,295	14,832,634
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	552,340	2,072,529	1,126,640
Changes of assumptions	-	-	3,182,088
Contributions - Buy Back	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(13,192,455)	(12,344,439)	(13,468,466)
Net Change in Total Pension Liability	4,258,147	6,376,205	7,240,385
Total Pension Liability - Beginning	230,678,104	224,301,899	217,061,514
Total Pension Liability - Ending (a)	<u>\$234,936,251</u>	<u>\$230,678,104</u>	<u>\$224,301,899</u>
Plan Fiduciary Net Position			
Contributions - Employer	14,894,139	15,482,762	14,802,319
Contributions - Employee	540,161	608,171	740,871
Contributions - Buy Back	-	-	-
Net Investment Income	4,173,467	6,324,077	13,427,988
Benefit Payments, including Refunds of Employee Contributions	(13,192,455)	(12,344,439)	(13,468,466)
Administrative Expense	(204,769)	(225,097)	(224,873)
Net Change in Plan Fiduciary Net Position	6,210,543	9,845,474	15,277,839
Plan Fiduciary Net Position - Beginning	153,679,672	143,834,198	128,556,359
Plan Fiduciary Net Position - Ending (b)	<u>\$159,890,215</u>	<u>\$153,679,672</u>	<u>\$143,834,198</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 75,046,036</u>	<u>\$ 76,998,432</u>	<u>\$ 80,467,701</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	68.06%	66.62%	64.13%
Covered Payroll ¹	\$ 10,785,500	\$ 11,804,951	\$ 13,747,075
Net Pension Liability as a percentage of Covered Payroll	695.80%	652.26%	585.34%

Notes to Schedule:

¹ The Covered Payroll numbers shown are in compliance with GASB 82.

Changes of benefit terms:

For measurement date 09/30/2017, Ordinance 2018-8 was adopted which restated the plan and made some changes that had no actuarial impact.

Changes of assumptions:

For measurement date 09/30/2017, as a result of the May 5, 2017 actuarial experience study, the following changes were made:

1. Salary increases were changed from 6.0% for the first 10 years and 5% thereafter to rates grading from 14% to 3.5% based on service.
2. Mortality rates were changed to the same as used in the July 1, 2016 Florida Retirement System valuation report for non-special risk lives.
3. Withdrawal rates were changed from age based rates to service based rates ranging from 20% to 4%.
4. Early retirement rates were changed from a flat 2.0% to rates based on age and service.
5. Normal retirement rates were amended to be 50% at age 65, 33% at age 66 and 67 and 100% at age 68+. Retirement rates of 100% upon completion of 30 years of Credited Service.

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

Reporting Period Ending	09/30/2017	09/30/2016
Measurement Date	<u>09/30/2016</u>	<u>09/30/2015</u>
Total Pension Liability		
Service Cost	1,852,029	1,955,680
Interest	14,160,117	13,857,718
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	1,198,983	1,329,173
Changes of assumptions	5,202,901	-
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	<u>(11,575,745)</u>	<u>(13,862,112)</u>
Net Change in Total Pension Liability	10,838,285	3,280,459
Total Pension Liability - Beginning	<u>206,223,229</u>	<u>202,942,770</u>
Total Pension Liability - Ending (a)	<u><u>\$217,061,514</u></u>	<u><u>\$206,223,229</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	14,187,965	13,053,609
Contributions - Employee	574,059	584,624
Contributions - Buy Back	-	-
Net Investment Income	10,585,043	(2,523,690)
Benefit Payments, including Refunds of Employee Contributions	(11,575,745)	(13,862,112)
Administrative Expense	<u>(225,101)</u>	<u>(172,861)</u>
Net Change in Plan Fiduciary Net Position	13,546,221	(2,920,430)
Plan Fiduciary Net Position - Beginning	<u>115,010,138</u>	<u>117,930,568</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$128,556,359</u></u>	<u><u>\$115,010,138</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 88,505,155</u></u>	<u><u>\$ 91,213,091</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	59.23%	55.77%
Covered Payroll ¹	\$ 14,722,210	\$ 21,970,446
Net Pension Liability as a percentage of Covered Payroll	601.17%	415.16%

Notes to Schedule:

¹ The Covered Payroll numbers shown are in compliance with GASB 82.

Changes of assumptions:

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.

Additionally, the inflation assumption rate was lowered from 3.00% to 2.00%, 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

Reporting Period Ending	09/30/2015	09/30/2014
Measurement Date	<u>09/30/2014</u>	<u>09/30/2013</u>
Total Pension Liability		
Service Cost	2,122,184	2,050,270
Interest	13,643,262	13,441,073
Changes of benefit terms	(1,321,935)	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	-	-
Contributions - Buy Back	114,387	-
Benefit Payments, including Refunds of Employee Contributions	<u>(11,437,247)</u>	<u>(11,268,573)</u>
Net Change in Total Pension Liability	3,120,651	4,222,770
Total Pension Liability - Beginning	<u>199,822,119</u>	<u>195,599,349</u>
Total Pension Liability - Ending (a)	<u><u>\$202,942,770</u></u>	<u><u>\$199,822,119</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	10,253,005	10,411,010
Contributions - Employee	675,791	2,175,515
Contributions - Buy Back	114,387	-
Net Investment Income	10,569,771	14,195,919
Benefit Payments, including Refunds of Employee Contributions	(11,437,247)	(11,268,573)
Administrative Expense	<u>(159,258)</u>	<u>(184,066)</u>
Net Change in Plan Fiduciary Net Position	10,016,449	15,329,805
Plan Fiduciary Net Position - Beginning	<u>107,914,119</u>	<u>92,584,314</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$117,930,568</u></u>	<u><u>\$107,914,119</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 85,012,202</u></u>	<u><u>\$ 91,908,001</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	58.11%	54.01%
Covered Payroll	N/A	N/A
Net Pension Liability as a percentage of Covered Payroll	N/A	N/A

Notes to Schedule:*Changes of benefit terms:*

For measurement date 09/30/2014, amounts reported as changes of benefit terms were resulted from lowering the variable multiplier from 1.60% to 1.30%. Ordinance 2014-42 was adopted which clarifies some features of the variable benefit plan.

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 ¹	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 14,820,286	\$ 14,894,139	\$ (73,853)	\$ 10,785,500	138.09%
09/30/2018	\$ 15,254,002	\$ 15,482,762	\$ (228,760)	\$ 11,804,951	131.15%
09/30/2017	\$ 14,802,319	\$ 14,802,319	\$ -	\$ 13,747,075	107.68%
09/30/2016	\$ 14,186,322	\$ 14,187,965	\$ (1,643)	\$ 14,722,210	96.37%
09/30/2015	\$ 13,053,609	\$ 13,053,609	\$ -	\$ 21,970,446	59.41%
09/30/2014	\$ 10,253,005	\$ 10,253,005	\$ -	\$ 15,593,924	65.75%
09/30/2013	\$ 10,411,010	\$ 10,411,010	\$ -	\$ 25,044,526	41.57%

¹ The Covered Payroll numbers shown are in compliance with GASB 82.

Notes to Schedule

Valuation Date: 10/01/2017

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

Methods and assumptions used to determine contribution rates:

Mortality:

Healthy Active Lives:

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

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

Healthy Inactive Lives: □

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

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

Disabled Lives:

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

Male: 100% RP2000 Disabled Male setback four years.

The above assumption rates were mandated by Chapter 2015-157, Laws of Florida.

This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those

outlined in Milliman’s July 1, 2016 FRS valuation report for non-special risk lives.

We feel this assumption sufficiently accommodates future mortality improvements.

Normal Retirement:

<u>Age</u>	<u>Probability of Retirement</u>
65	40%
66	40%
67	100%

Members with at least 30 years of Credited Service are assumed to retire immediately. This assumption was adopted based on the May 5, 2017 actuarial

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Early Retirement:	<u>25 or more Years of Credited</u>		<u>Less than 25 Years of Credited</u>	
	<u>Service</u>		<u>Service</u>	
	<u>Credited</u>			
	<u>Service</u>	<u>Assumption</u>	<u>Age</u>	<u>Assumption</u>
	25	10.50%	55-60	5.75%
	26	5.50%	61	6.50%
	27	11.50%	62	12.00%
	28	7.50%	63	5.00%
	29	4.00%	64	3.00%

This assumption was adopted based on the May 5, 2017 actuarial valuation report. 7.0% per year, compounded annually, net of investment related expenses. The interest rate is mandated by Ordinance 2013-48.

Interest Rate:

Salary Increases:

<u>Service</u>	<u>Increase</u>
0	14.0%
1-2	6.5%
3-4	5.5%
5-14	4.5%
15-24	3.5%
25+	4.5%

This assumption was adopted based on the May 5, 2017 actuarial experience study.

Payroll Increase:

None.

Amortization Method:

All future bases amortized over layered 10-year periods as set forth in Ordinance 2013-48.

Remaining Amortization Period:

20 Years (as of 10/01/2017 valuation).

Funding Method:

Entry Age Normal Actuarial Cost Method. The following loads are applied for determination of the Sponsor funding requirement:

Interest – half a year based on the 7.0% assumption.

Salary – a full year based on the current average assumption of 4.1%.

Asset Smoothing Methodology:

The Actuarial Value of Assets is based upon a 5-year straight line recognition of the difference between expected earnings on the net market value of assets and actual earnings on the net market value of assets. The net market value of assets shall be the total fiduciary net position as defined by GASB 67/68, excluding any reserves held which are not designated for currently adopted plan benefits valued as part of the plan liabilities. The resulting value shall be adjusted if it does not fall between 120% and 80% of the market value of assets. This change shall be made assuming that this 5-year recognition method applies to differences between the expected and actual investment returns for the years ending September 30, 2009 and later. This method is mandated by Ordinance 2013-48.

Disability Rates:

	<u>% Becoming Disabled During the</u>	
	<u>Age</u>	<u>Year</u>
	20	0.051%
	30	0.058%
	40	0.121%
	50	0.429%
	60	1.611%

Termination Rates:

<u>Service</u>	<u>Termination Rate</u>
0	20.00%
1-4	15.00%
5-9	7.50%
10-19	4.00%
20+	6.50%

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2019

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning Balance	\$ 80,467,701	\$ 5,556,884	\$ 21,943,104	\$ -
Employer contributions made after 09/30/2018	-	-	14,894,139	-
Total Pension Liability Factors:				
Service Cost	1,288,820	-	-	1,288,820
Interest	15,359,295	-	-	15,359,295
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	2,072,529	-	2,072,529	-
Current year amortization of experience difference	-	-	(1,599,584)	1,599,584
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(1,591,044)	1,591,044
Benefit Payments, including Refunds of Employee Contributions	(12,344,439)	-	-	-
Net change	<u>6,376,205</u>	<u>-</u>	<u>13,776,040</u>	<u>19,838,743</u>
Plan Fiduciary Net Position:				
Contributions - Employer	15,482,762	-	(15,482,762)	-
Contributions - Employee	608,171	-	-	(608,171)
Projected Net Investment Income	10,191,643	-	-	(10,191,643)
Difference between projected and actual earnings on Pension Plan investments	(3,867,566)	-	3,867,566	-
Current year amortization	-	(1,966,028)	(2,926,503)	960,475
Benefit Payments, including Refunds of Employee Contributions	(12,344,439)	-	-	-
Administrative Expenses	(225,097)	-	-	225,097
Net change	<u>9,845,474</u>	<u>(1,966,028)</u>	<u>(14,541,699)</u>	<u>(9,614,242)</u>
Ending Balance	<u>\$ 76,998,432</u>	<u>\$ 3,590,856</u>	<u>\$ 21,177,445</u>	<u>\$ 10,224,501</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2020

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 76,998,432	\$ 3,590,856	\$ 21,177,445	\$ -
Employer Contributions made after 09/30/2019	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	1,133,206	-	-	1,133,206
Interest	15,765,056	-	-	15,765,056
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	552,340	-	552,340	-
Current year amortization of experience difference	-	-	(1,312,435)	1,312,435
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(13,192,455)	-	-	-
Net change	<u>4,258,147</u>	<u>-</u>	<u>(760,095)</u>	<u>18,210,697</u>
Plan Fiduciary Net Position:				
Contributions - Employer	14,894,139	-	(14,894,139)	-
Contributions - Employee	540,161	-	-	(540,161)
Projected Net Investment Income	10,828,875	-	-	(10,828,875)
Difference between projected and actual earnings on Pension Plan investments	(6,655,408)	-	6,655,408	-
Current year amortization	-	(1,358,998)	(4,257,582)	2,898,584
Benefit Payments, including Refunds of Employee Contributions	(13,192,455)	-	-	-
Administrative Expenses	(204,769)	-	-	204,769
Net change	<u>6,210,543</u>	<u>(1,358,998)</u>	<u>(12,496,313)</u>	<u>(8,265,683)</u>
Ending Balance	<u>\$ 75,046,036</u>	<u>\$ 2,231,858</u>	<u>TBD</u>	<u>\$ 9,945,014</u>

* Employer Contributions subsequent to the measurement date made after September 30, 2019 but made on or before September 30, 2020 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

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

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 6,655,408	5	\$ -	\$ 1,331,080	\$ 1,331,082	\$ 1,331,082	\$ 1,331,082	\$ 1,331,082	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 3,867,566	5	\$ 773,514	\$ 773,513	\$ 773,513	\$ 773,513	\$ 773,513	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (4,364,298)	5	\$ (872,860)	\$ (872,860)	\$ (872,860)	\$ (872,860)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (2,430,692)	5	\$ (486,138)	\$ (486,138)	\$ (486,138)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 10,764,944	5	\$ 2,152,989	\$ 2,152,989	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2014	\$ (3,035,149)	5	\$ (607,030)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 960,475	\$ 2,898,584	\$ 745,597	\$ 1,231,735	\$ 2,104,595	\$ 1,331,082	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

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

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2017	\$ 3,182,088	2	\$ 1,591,044	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 1,591,044	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

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

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 552,340	2	\$ -	\$ 276,170	\$ 276,170	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 2,072,529	2	\$ 1,036,264	\$ 1,036,265	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 1,126,640	2	\$ 563,320	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 1,599,584	\$ 1,312,435	\$ 276,170	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -