

March 13, 2020

Board of Trustees  
Flagler Beach Police Officers' Retirement Trust Fund  
P.O. Box 328  
Flagler Beach, FL 32136

RE: GASB Statement No.67 and No.68 – City of Flagler Beach Police Officers' Retirement Trust Fund

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 Flagler Beach Police Officers' Retirement Trust Fund.

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 30<sup>th</sup>, 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:   
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Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #17-7778

DHL/lke  
Enclosures

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2019

| <u>ASSETS</u>                        | MARKET VALUE |
|--------------------------------------|--------------|
| Cash and Cash Equivalents:           |              |
| Short Term Investments               | 94,543       |
| Total Cash and Equivalents           | 94,543       |
| Receivables:                         |              |
| Other Receivable                     | 1,211        |
| Investment Income                    | 2,357        |
| Total Receivable                     | 3,568        |
| Investments:                         |              |
| Mutual Funds:                        |              |
| Fixed Income                         | 1,054,374    |
| Equity                               | 2,947,565    |
| Total Investments                    | 4,001,939    |
| Total Assets                         | 4,100,050    |
| <u>LIABILITIES</u>                   |              |
| Payables:                            |              |
| Investment Expenses                  | 750          |
| Administrative Expenses              | 895          |
| Total Liabilities                    | 1,645        |
| NET POSITION RESTRICTED FOR PENSIONS | 4,098,405    |

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

ADDITIONS

## Contributions:

|   |          |             |
|---|----------|-------------|
| Member                                    | 77,838   |             |
| Buy-Back                                  | 42,166   |             |
| City                                      | 129,209  |             |
| State                                     | 56,051   |             |
| <br>Total Contributions                   |          | <br>305,264 |
| <br>Investment Income:                    |          |             |
| Net Increase in Fair Value of Investments | 80,586   |             |
| Interest & Dividends                      | 88,540   |             |
| Less Investment Expense <sup>1</sup>      | (14,500) |             |
| <br>Net Investment Income                 |          | <br>154,626 |
| <br>Total Additions                       |          | <br>459,890 |

DEDUCTIONS

## Distributions to Members:

|  |         |               |
|--|---------|---------------|
| Benefit Payments                         | 221,192 |               |
| Lump Sum Share Distributions             | 390     |               |
| Refunds of Member Contributions          | 0       |               |
| <br>Total Distributions                  |         | <br>221,582   |
| <br>Administrative Expense               |         | <br>47,021    |
| <br>Total Deductions                     |         | <br>268,603   |
| <br>Net Increase in Net Position         |         | <br>191,287   |
| <br>NET POSITION RESTRICTED FOR PENSIONS |         |               |
| Beginning of the Year                    |         | 3,907,118     |
| <br>End of the Year                      |         | <br>4,098,405 |

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

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

*Plan Administration*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two Commission/Council appointees,
- b. Two Members of the Department elected by the Membership, and
- c. Fifth Member elected by other 4 and appointed by Commission/Council.

*Plan Membership as of October 1, 2018:*

|   |    |
|---|----|
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 6  |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits    | 10 |
| Active Plan Members   | 15 |
|   | 31 |

*Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Flagler Beach Police Officers' Retirement Trust Fund prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions: 10.0% of Salary.

City and State Contributions: Remaining amount necessary to pay current costs and amortize past service cost, if any, 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 |
|---------------------------|-------------------|
| Domestic Equity           | 50.0%             |
| International Equity      | 15.0%             |
| Broad Market Fixed Income | 35.0%             |
| Total                     | 100.0%            |

*Concentrations:*

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

*Rate of Return:*

For the year ended September 30, 2019, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 3.95 percent.

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

## 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  | \$ 4,475,230   |
| Plan Fiduciary Net Position  | \$ (4,098,405) |
| Sponsor's Net Pension Liability  | \$ 376,825     |
| Plan Fiduciary Net Position as a percentage of Total Pension Liability | 91.58%         |

*Actuarial Assumptions:*

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

|                           |               |
|---------------------------|---------------|
| Inflation                 | 2.50%         |
| Salary Increases          | Service based |
| Discount Rate             | 7.35%         |
| Investment Rate of Return | 7.35%         |

*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 Healthy Inactive Lives:*

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

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

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

The most recent actuarial experience study used to review the other significant assumptions was dated August 20, 2019.

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

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

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

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

| Asset Class               | Long Term Expected Real Rate of Return |
|---------------------------|--|
| Domestic Equity           | 7.50%                                  |
| International Equity      | 8.50%                                  |
| Broad Market Fixed Income | 2.50%                                  |

## GASB 67

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.35 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<br>6.35% | Current<br>Discount Rate<br>7.35% | 1% Increase<br>8.35% |
|---------------------------------|----------------------|-----------------------------------|----------------------|
| Sponsor's Net Pension Liability | \$ 974,073           | \$ 376,825                        | \$ (114,040)         |

## 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   | 186,283      | 181,472      | 163,804      |
| Interest   | 323,707      | 286,220      | 270,030      |
| Share Plan Allocation  | 6,549        | 5,344        | 764          |
| Changes of benefit terms   | -            | -            | -            |
| Differences between Expected and Actual Experience                         | (118,437)    | 204,944      | (91,598)     |
| Changes of assumptions   | 72,739       | -            | -            |
| Contributions - Buy Back   | 42,166       | -            | -            |
| Benefit Payments, including Refunds of Employee Contributions              | (221,582)    | (157,515)    | (137,764)    |
| Net Change in Total Pension Liability                                      | 291,425      | 520,465      | 205,236      |
| Total Pension Liability - Beginning  | 4,183,805    | 3,663,340    | 3,458,104    |
| Total Pension Liability - Ending (a)                                       | \$ 4,475,230 | \$ 4,183,805 | \$ 3,663,340 |
| Plan Fiduciary Net Position  |              |              |              |
| Contributions - Employer   | 129,209      | 136,466      | 130,382      |
| Contributions - State  | 56,051       | 53,639       | 44,481       |
| Contributions - Employee   | 77,838       | 83,550       | 81,895       |
| Contributions - Buy Back   | 42,166       | -            | -            |
| Net Investment Income  | 154,626      | 338,143      | 373,236      |
| Benefit Payments, including Refunds of Employee Contributions              | (221,582)    | (157,515)    | (137,764)    |
| Administrative Expense   | (47,021)     | (35,835)     | (42,148)     |
| Net Change in Plan Fiduciary Net Position                                  | 191,287      | 418,448      | 450,082      |
| Plan Fiduciary Net Position - Beginning                                    | 3,907,118    | 3,488,670    | 3,038,588    |
| Plan Fiduciary Net Position - Ending (b)                                   | \$ 4,098,405 | \$ 3,907,118 | \$ 3,488,670 |
| Net Pension Liability - Ending (a) - (b)                                   | \$ 376,825   | \$ 276,687   | \$ 174,670   |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 91.58%       | 93.39%       | 95.23%       |
| Covered Payroll <sup>1</sup>   | \$ 778,377   | \$ 835,497   | \$ 818,946   |
| Net Pension Liability as a percentage of Covered Payroll                   | 48.41%       | 33.12%       | 21.33%       |

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

*Changes of assumptions:*

For measurement date 09/30/2019, the Board of Trustees adopted the following changes:

- Salary Increase Assumption
- Retirement Assumption
- Withdrawal Assumption
- Investment rate of return was reduced from 7.60% to 7.35%, net of investment related expenses.

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

|  | 09/30/2016          | 09/30/2015          | 09/30/2014          |
|--|---------------------|---------------------|---------------------|
| Total Pension Liability  |                     |                     |                     |
| Service Cost   | 140,418             | 152,425             | 148,987             |
| Interest   | 233,628             | 218,206             | 197,282             |
| Share Plan Allocation  | -                   | -                   | -                   |
| Changes of benefit terms   | -                   | -                   | -                   |
| Differences between Expected and Actual Experience                         | 114,638             | (58,880)            | -                   |
| Changes of assumptions   | 87,160              | -                   | -                   |
| Contributions - Buy Back   | -                   | -                   | -                   |
| Benefit Payments, including Refunds of Employee Contributions              | (102,745)           | (90,905)            | (57,881)            |
| Net Change in Total Pension Liability                                      | 473,099             | 220,846             | 288,388             |
| Total Pension Liability - Beginning  | 2,985,005           | 2,764,159           | 2,475,771           |
| Total Pension Liability - Ending (a)                                       | <u>\$ 3,458,104</u> | <u>\$ 2,985,005</u> | <u>\$ 2,764,159</u> |
| Plan Fiduciary Net Position  |                     |                     |                     |
| Contributions - Employer   | 62,751              | 60,659              | 87,454              |
| Contributions - State  | 42,952              | 38,667              | 38,340              |
| Contributions - Employee   | 72,128              | 71,655              | 71,530              |
| Contributions - Buy Back   | -                   | -                   | -                   |
| Net Investment Income  | 289,042             | (40,277)            | 246,854             |
| Benefit Payments, including Refunds of Employee Contributions              | (102,745)           | (90,905)            | (57,881)            |
| Administrative Expense   | (39,294)            | (51,933)            | (19,992)            |
| Net Change in Plan Fiduciary Net Position                                  | 324,834             | (12,134)            | 366,305             |
| Plan Fiduciary Net Position - Beginning                                    | 2,713,754           | 2,725,888           | 2,359,583           |
| Plan Fiduciary Net Position - Ending (b)                                   | <u>\$ 3,038,588</u> | <u>\$ 2,713,754</u> | <u>\$ 2,725,888</u> |
| Net Pension Liability - Ending (a) - (b)                                   | <u>\$ 419,516</u>   | <u>\$ 271,251</u>   | <u>\$ 38,271</u>    |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 87.87%              | 90.91%              | 98.62%              |
| Covered Payroll <sup>1</sup>   | \$ 721,277          | \$ 716,550          | \$ 715,298          |
| Net Pension Liability as a percentage of Covered Payroll                   | 58.16%              | 37.86%              | 5.35%               |

**Notes to Schedule:**

<sup>1</sup> 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 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 CONTRIBUTIONS**  
Last 10 Fiscal Years

| Fiscal Year Ended | Actuarially<br>Determined<br>Contribution | Contributions<br>in relation to<br>the Actuarially<br>Determined<br>Contributions | Contribution<br>Deficiency<br>(Excess) | Covered<br>Payroll <sup>1</sup> | Contributions<br>as a percentage<br>of Covered<br>Payroll |
|-------------------|---|---|--|---------------------------------|---|
| 09/30/2019        | \$ 184,475                                | \$ 178,711  | \$ 5,764                               | \$ 778,377                      | 22.96%  |
| 09/30/2018        | \$ 172,112                                | \$ 184,762  | \$ (12,650)                            | \$ 835,497                      | 22.11%  |
| 09/30/2017        | \$ 180,987                                | \$ 174,099  | \$ 6,888                               | \$ 818,946                      | 21.26%  |
| 09/30/2016        | \$ 98,815                                 | \$ 105,703  | \$ (6,888)                             | \$ 721,277                      | 14.65%  |
| 09/30/2015        | \$ 98,884                                 | \$ 99,326   | \$ (442)                               | \$ 716,550                      | 13.86%  |
| 09/30/2014        | \$ 125,177                                | \$ 125,794  | \$ (617)                               | \$ 715,298                      | 17.59%  |

<sup>1</sup> 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 Rates:

*Healthy Active Lives:*

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

Male: RP2000 Generational, 10% Combined Healthy White Collar / 90%

Combined Healthy Blue Collar, Scale BB.

*Healthy Inactive Lives:*

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

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

Collar, Scale BB.

*Disabled Lives:*

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant

White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar

with no setback, no projection scale.

The 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 Milliman's July 1, 2016 FRS actuarial valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Termination Rates:

Service based table, assuming 10% of participants with service from 0-5 years will terminate each year, and 0% thereafter. We feel this assumption is reasonable based upon plan provisions.

Retirement Age:

Earlier of :

1) age 55 and 10 years of service, or

2) age 52 and 25 years of service.

Also, any Member who has reached Normal Retirement Age is assumed to continue employment for one additional year. We feel this assumption is reasonable based upon plan provisions but do not have sufficient data to develop retirement rates at this time.

GASB 67

Disability Rates: See Table below (1201). It is assumed that 75% of disabilities that occur are service related. This assumption was developed from those used by other plans containing Florida municipal Police Officers.

| Age | % Becoming Disabled During<br>the Year |
|-----|--|
| 20  | 0.03%                                  |
| 30  | 0.04%                                  |
| 40  | 0.07%                                  |
| 50  | 0.18%                                  |

Early Retirement: It is assumed that members who are eligible for Early Retirement (age 50) will retire at the rate of 5% per year.

We feel this assumption is reasonable based upon plan provisions but do not have sufficient data to develop retirement rates at this time.

Interest Rate: 7.6% 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.

Salary Increases: Service based annual amount to assumed retirement age; 12% at 0 years of service, 5% from 1-10 years of service and 4.5% for 11 years of service and greater. Projected salary at retirement is increased 10% to account for nonregular payments for those hired prior to 10/1/2010.

We feel this assumption is reasonable based upon long-term expectations.

Cost-of-Living Adjustment: None.

Funding Method: Entry Age Normal Actuarial Cost Method, with level dollar amortization of the Unfunded Actuarial Accrued Liability. The amortization period for the October 1, 2015 Method Change Base is 20 years.

The following load is utilized for determination of the Plan’s contribution requirements:

- Interest – A half-year, based on the current 7.6% assumption.

Asset Methodology: In conjunction with the October 1, 2015 valuation, the Actuarial Value of Assets is based on a four-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased in over a four-year period.

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

| Fiscal Year Ended | Annual Money-Weighted Rate of Return<br>Net of Investment Expense |
|-------------------|---|
| 09/30/2019        | 3.95%   |
| 09/30/2018        | 9.76%   |
| 09/30/2017        | 12.32%  |
| 09/30/2016        | 10.62%  |
| 09/30/2015        | -1.48%  |
| 09/30/2014        | 10.40%  |

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 comprised of:

- a. Two Commission/Council appointees,
- b. Two Members of the Department elected by the Membership, and
- c. Fifth Member elected by other 4 and appointed by Commission/Council.

Employees who are classified as full-time Police Officers shall participate in the System as a condition of employment.

*Plan Membership as of October 1, 2018:*

|   |    |
|---|----|
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 6  |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits    | 10 |
| Active Plan Members   | 15 |
|   | 31 |
|   | 31 |

*Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Flagler Beach Police Officers' Retirement Trust Fund prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions: 10.0% of Salary.

City and State Contributions: Remaining amount necessary to pay current costs and amortize past service cost, if any, 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                 | 2.50%         |
| Salary Increases          | Service based |
| Discount Rate             | 7.35%         |
| Investment Rate of Return | 7.35%         |

*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 Healthy Inactive Lives:*

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

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

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

The most recent actuarial experience study used to review the other significant assumptions was dated August 20, 2019.

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

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

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

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

| Asset Class               | Target Allocation | Long Term Expected<br>Real Rate of Return |
|---------------------------|-------------------|---|
| Domestic Equity           | 50.0%             | 7.50%                                     |
| International Equity      | 15.0%             | 8.50%                                     |
| Broad Market Fixed Income | 35.0%             | 2.50%                                     |
| Total                     | 100.0%            |   |

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.35 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                    | \$ 4,183,805            | \$ 3,907,118                | \$ 276,687            |
| Changes for a Year:   |                         |                             |                       |
| Service Cost  | 186,283                 | -                           | 186,283               |
| Interest  | 323,707                 | -                           | 323,707               |
| Share Plan Allocation   | 6,549                   | -                           | 6,549                 |
| Differences between Expected and Actual Experience            | (118,437)               | -                           | (118,437)             |
| Changes of assumptions  | 72,739                  | -                           | 72,739                |
| Changes of benefit terms                                      | -                       | -                           | -                     |
| Contributions - Employer                                      | -                       | 129,209                     | (129,209)             |
| Contributions - State   | -                       | 56,051                      | (56,051)              |
| Contributions - Employee                                      | -                       | 77,838                      | (77,838)              |
| Contributions - Buy Back                                      | 42,166                  | 42,166                      | -                     |
| Net Investment Income   | -                       | 154,626                     | (154,626)             |
| Benefit Payments, including Refunds of Employee Contributions | (221,582)               | (221,582)                   | -                     |
| Administrative Expense  | -                       | (47,021)                    | 47,021                |
| Net Changes   | 291,425                 | 191,287                     | 100,138               |
| Reporting Period Ending September 30, 2020                    | \$ 4,475,230            | \$ 4,098,405                | \$ 376,825            |

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

|                                 | Current Discount |            |              |
|---------------------------------|------------------|------------|--------------|
|                                 | 1% Decrease      | Rate       | 1% Increase  |
|                                 | 6.35%            | 7.35%      | 8.35%        |
| Sponsor's Net Pension Liability | \$ 974,073       | \$ 376,825 | \$ (114,040) |

*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 \$185,520.

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

|  | Deferred<br>Outflows of<br>Resources | Deferred<br>Inflows of<br>Resources |
|--|--------------------------------------|-------------------------------------|
| Differences between Expected and Actual Experience                               | 216,641                              | 80,690                              |
| Changes of assumptions   | 34,864                               | -                                   |
| Net difference between Projected and Actual Earnings on Pension Plan investments | -                                    | 122,462                             |
| Employer and State contributions subsequent to the measurement date              | 185,260                              | -                                   |
| Total  | \$ 436,765                           | \$ 203,152                          |

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date has been 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                     | \$ | 40,987   |
| 2021                     | \$ | (8,716)  |
| 2022                     | \$ | (22,976) |
| 2023                     | \$ | 4,901    |
| 2024                     | \$ | 34,157   |
| 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 \$247,973.

On September 30, 2020, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

|  | Deferred<br>Outflows of<br>Resources | Deferred<br>Inflows of<br>Resources |
|--|--------------------------------------|-------------------------------------|
| Differences between Expected and Actual Experience                               | 159,556                              | 150,359                             |
| Changes of assumptions   | 75,624                               | -                                   |
| Net difference between Projected and Actual Earnings on Pension Plan investments | 957                                  | -                                   |
| Employer and State contributions subsequent to the measurement date              | TBD                                  | -                                   |
| Total  | TBD                                  | \$ 150,359                          |

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State 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                     | \$ | 10,887  |
| 2022                     | \$ | (3,373) |
| 2023                     | \$ | 24,504  |
| 2024                     | \$ | 53,760  |
| 2025                     | \$ | -       |
| Thereafter               | \$ | -       |



## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

| Reporting Period Ending<br>Measurement Date                                | 09/30/2020<br>09/30/2019 | 09/30/2019<br>09/30/2018 | 09/30/2018<br>09/30/2017 |
|--|--------------------------|--------------------------|--------------------------|
| Total Pension Liability  |                          |                          |                          |
| Service Cost   | 186,283                  | 181,472                  | 163,804                  |
| Interest   | 323,707                  | 286,220                  | 270,030                  |
| Share Plan Allocation  | 6,549                    | 5,344                    | 764                      |
| Changes of benefit terms   | -                        | -                        | -                        |
| Differences between Expected and Actual Experience                         | (118,437)                | 204,944                  | (91,598)                 |
| Changes of assumptions   | 72,739                   | -                        | -                        |
| Contributions - Buy Back   | 42,166                   | -                        | -                        |
| Benefit Payments, including Refunds of Employee Contributions              | (221,582)                | (157,515)                | (137,764)                |
| Net Change in Total Pension Liability                                      | 291,425                  | 520,465                  | 205,236                  |
| Total Pension Liability - Beginning  | 4,183,805                | 3,663,340                | 3,458,104                |
| Total Pension Liability - Ending (a)                                       | \$ 4,475,230             | \$ 4,183,805             | \$ 3,663,340             |
| Plan Fiduciary Net Position  |                          |                          |                          |
| Contributions - Employer   | 129,209                  | 136,466                  | 130,382                  |
| Contributions - State  | 56,051                   | 53,639                   | 44,481                   |
| Contributions - Employee   | 77,838                   | 83,550                   | 81,895                   |
| Contributions - Buy Back   | 42,166                   | -                        | -                        |
| Net Investment Income  | 154,626                  | 338,143                  | 373,236                  |
| Benefit Payments, including Refunds of Employee Contributions              | (221,582)                | (157,515)                | (137,764)                |
| Administrative Expense   | (47,021)                 | (35,835)                 | (42,148)                 |
| Net Change in Plan Fiduciary Net Position                                  | 191,287                  | 418,448                  | 450,082                  |
| Plan Fiduciary Net Position - Beginning                                    | 3,907,118                | 3,488,670                | 3,038,588                |
| Plan Fiduciary Net Position - Ending (b)                                   | \$ 4,098,405             | \$ 3,907,118             | \$ 3,488,670             |
| Net Pension Liability - Ending (a) - (b)                                   | \$ 376,825               | \$ 276,687               | \$ 174,670               |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 91.58%                   | 93.39%                   | 95.23%                   |
| Covered Payroll <sup>1</sup>   | \$ 778,377               | \$ 835,497               | \$ 818,946               |
| Net Pension Liability as a percentage of Covered Payroll                   | 48.41%                   | 33.12%                   | 21.33%                   |

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

*Changes of assumptions:*

For measurement date 09/30/2019, the Board of Trustees adopted the following changes:

- Salary Increase Assumption
- Retirement Assumption
- Withdrawal Assumption
- Investment rate of return was reduced from 7.60% to 7.35%, net of investment related expenses.

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

| Reporting Period Ending<br>Measurement Date                                | 09/30/2017<br>09/30/2016 | 09/30/2016<br>09/30/2015 | 09/30/2015<br>09/30/2014 |
|--|--------------------------|--------------------------|--------------------------|
| Total Pension Liability  |                          |                          |                          |
| Service Cost   | 140,418                  | 152,425                  | 148,987                  |
| Interest   | 233,628                  | 218,206                  | 197,282                  |
| Share Plan Allocation  | -                        | -                        | -                        |
| Changes of benefit terms   | -                        | -                        | -                        |
| Differences between Expected and Actual Experience                         | 114,638                  | (58,880)                 | -                        |
| Changes of assumptions   | 87,160                   | -                        | -                        |
| Contributions - Buy Back   | -                        | -                        | -                        |
| Benefit Payments, including Refunds of Employee Contributions              | (102,745)                | (90,905)                 | (57,881)                 |
| Net Change in Total Pension Liability                                      | 473,099                  | 220,846                  | 288,388                  |
| Total Pension Liability - Beginning  | 2,985,005                | 2,764,159                | 2,475,771                |
| Total Pension Liability - Ending (a)                                       | \$ 3,458,104             | \$ 2,985,005             | \$ 2,764,159             |
| Plan Fiduciary Net Position  |                          |                          |                          |
| Contributions - Employer   | 62,751                   | 60,659                   | 87,454                   |
| Contributions - State  | 42,952                   | 38,667                   | 38,340                   |
| Contributions - Employee   | 72,128                   | 71,655                   | 71,530                   |
| Contributions - Buy Back   | -                        | -                        | -                        |
| Net Investment Income  | 289,042                  | (40,277)                 | 246,854                  |
| Benefit Payments, including Refunds of Employee Contributions              | (102,745)                | (90,905)                 | (57,881)                 |
| Administrative Expense   | (39,294)                 | (51,933)                 | (19,992)                 |
| Net Change in Plan Fiduciary Net Position                                  | 324,834                  | (12,134)                 | 366,305                  |
| Plan Fiduciary Net Position - Beginning                                    | 2,713,754                | 2,725,888                | 2,359,583                |
| Plan Fiduciary Net Position - Ending (b)                                   | \$ 3,038,588             | \$ 2,713,754             | \$ 2,725,888             |
| Net Pension Liability - Ending (a) - (b)                                   | \$ 419,516               | \$ 271,251               | \$ 38,271                |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 87.87%                   | 90.91%                   | 98.62%                   |
| Covered Payroll <sup>1</sup>   | \$ 721,277               | \$ 716,550               | \$ 715,298               |
| Net Pension Liability as a percentage of Covered Payroll                   | 58.16%                   | 37.86%                   | 5.35%                    |

**Notes to Schedule:**

<sup>1</sup> 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 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 CONTRIBUTIONS**  
Last 10 Fiscal Years

| Fiscal Year Ended | Actuarially<br>Determined<br>Contribution | Contributions<br>in relation to<br>the Actuarially<br>Determined<br>Contributions | Contribution<br>Deficiency<br>(Excess) | Covered<br>Payroll <sup>1</sup> | Contributions<br>as a percentage<br>of Covered<br>Payroll |
|-------------------|---|---|--|---------------------------------|---|
| 09/30/2019        | \$ 184,475                                | \$ 178,711  | \$ 5,764                               | \$ 778,377                      | 22.96%  |
| 09/30/2018        | \$ 172,112                                | \$ 184,762  | \$ (12,650)                            | \$ 835,497                      | 22.11%  |
| 09/30/2017        | \$ 180,987                                | \$ 174,099  | \$ 6,888                               | \$ 818,946                      | 21.26%  |
| 09/30/2016        | \$ 98,815                                 | \$ 105,703  | \$ (6,888)                             | \$ 721,277                      | 14.65%  |
| 09/30/2015        | \$ 98,884                                 | \$ 99,326   | \$ (442)                               | \$ 716,550                      | 13.86%  |
| 09/30/2014        | \$ 125,177                                | \$ 125,794  | \$ (617)                               | \$ 715,298                      | 17.59%  |

<sup>1</sup> 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 Rates:

*Healthy Active Lives:*

Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.  
Male: RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB.

*Healthy Inactive Lives:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.  
Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

*Disabled Lives:*

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

The 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 Milliman's July 1, 2016 FRS actuarial valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Termination Rates:

Service based table, assuming 10% of participants with service from 0-5 years will terminate each year, and 0% thereafter. We feel this assumption is reasonable based upon plan provisions.

Retirement Age:

Earlier of :

- 1) age 55 and 10 years of service, or
- 2) age 52 and 25 years of service.

Also, any Member who has reached Normal Retirement Age is assumed to continue employment for one additional year. We feel this assumption is reasonable based upon plan provisions but do not have sufficient data to develop retirement rates at this time.

## GASB 68

Disability Rates: See Table below (1201). It is assumed that 75% of disabilities that occur are service related. This assumption was developed from those used by other plans containing Florida municipal Police Officers.

| Age | % Becoming Disabled During<br>the Year |
|-----|--|
| 20  | 0.03%                                  |
| 30  | 0.04%                                  |
| 40  | 0.07%                                  |
| 50  | 0.18%                                  |

Early Retirement: It is assumed that members who are eligible for Early Retirement (age 50) will retire at the rate of 5% per year.

We feel this assumption is reasonable based upon plan provisions but do not have sufficient data to develop retirement rates at this time.

Interest Rate: 7.6% 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.

Salary Increases: Service based annual amount to assumed retirement age; 12% at 0 years of service, 5% from 1-10 years of service and 4.5% for 11 years of service and greater. Projected salary at retirement is increased 10% to account for nonregular payments for those hired prior to 10/1/2010.

Cost-of-Living Adjustment: None.

Funding Method: Entry Age Normal Actuarial Cost Method, with level dollar amortization of the Unfunded Actuarial Accrued Liability. The amortization period for the October 1, 2015 Method Change Base is 20 years.

The following load is utilized for determination of the Plan's contribution requirements:

- Interest – A half-year, based on the current 7.6% assumption.

Asset Methodology: In conjunction with the October 1, 2015 valuation, the Actuarial Value of Assets is based on a four-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased in over a four-year period.

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

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

FINAL COMPONENTS OF PENSION EXPENSE  
FISCAL YEAR SEPTEMBER 30, 2019

|   | Net Pension<br>Liability | Deferred<br>Inflows | Deferred<br>Outflows | Pension<br>Expense |
|---|--------------------------|---------------------|----------------------|--------------------|
| Beginning Balance   | \$ 174,670               | \$ 278,735          | \$ 410,591           | \$ -               |
| Employer and State contributions made after 09/30/2018  | -                        | -                   | 185,260              | -                  |
| Total Pension Liability Factors:  |                          |                     |                      |                    |
| Service Cost  | 181,472                  | -                   | -                    | 181,472            |
| Interest  | 286,220                  | -                   | -                    | 286,220            |
| Share Plan Allocation   | 5,344                    | -                   | -                    | 5,344              |
| Changes in benefit terms  | -                        | -                   | -                    | -                  |
| Differences between Expected and Actual Experience with regard to economic or demographic assumptions | 204,944                  | -                   | 204,944              | -                  |
| Current year amortization of experience difference  | -                        | (25,079)            | (57,087)             | 32,008             |
| Change in assumptions about future economic or demographic factors or other inputs                    | -                        | -                   | -                    | -                  |
| Current year amortization of change in assumptions  | -                        | -                   | (17,432)             | 17,432             |
| Benefit Payments, including Refunds of Employee Contributions   | (157,515)                | -                   | -                    | -                  |
| Net change  | <u>520,465</u>           | <u>(25,079)</u>     | <u>315,685</u>       | <u>522,476</u>     |
| Plan Fiduciary Net Position:  |                          |                     |                      |                    |
| Contributions - Employer  | 136,466                  | -                   | (136,466)            | -                  |
| Contributions - State   | 53,639                   | -                   | (53,639)             | -                  |
| Contributions - Employee  | 83,550                   | -                   | -                    | (83,550)           |
| Projected Net Investment Income   | 268,191                  | -                   | -                    | (268,191)          |
| Difference between projected and actual earnings on Pension Plan investments                          | 69,952                   | 69,952              | -                    | -                  |
| Current year amortization   | -                        | (70,753)            | (49,703)             | (21,050)           |
| Benefit Payments, including Refunds of Employee Contributions   | (157,515)                | -                   | -                    | -                  |
| Administrative Expenses   | (35,835)                 | -                   | -                    | 35,835             |
| Net change  | <u>418,448</u>           | <u>(801)</u>        | <u>(239,808)</u>     | <u>(336,956)</u>   |
| Ending Balance  | <u>\$ 276,687</u>        | <u>\$ 252,855</u>   | <u>\$ 486,468</u>    | <u>\$ 185,520</u>  |

**PRELIMINARY COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2020**

|   | Net Pension<br>Liability | Deferred<br>Inflows | Deferred<br>Outflows | Pension<br>Expense |
|---|--------------------------|---------------------|----------------------|--------------------|
| Beginning balance   | \$ 276,687               | \$ 252,855          | \$ 486,468           | \$ -               |
| Employer and State Contributions made after 09/30/2019  | -                        | -                   | TBD*                 | -                  |
| Total Pension Liability Factors:  |                          |                     |                      |                    |
| Service Cost  | 186,283                  | -                   | -                    | 186,283            |
| Interest  | 323,707                  | -                   | -                    | 323,707            |
| Share Plan Allocation   | 6,549                    | -                   | -                    | 6,549              |
| Changes in benefit terms  | -                        | -                   | -                    | -                  |
| Contributions - Buy Back  | 42,166                   | -                   | -                    | 42,166             |
| Differences between Expected and Actual Experience with regard to economic or demographic assumptions | (118,437)                | 118,437             | -                    | -                  |
| Current year amortization of experience difference  | -                        | (48,768)            | (57,085)             | 8,317              |
| Change in assumptions about future economic or demographic factors or other inputs                    | 72,739                   | -                   | 72,739               | -                  |
| Current year amortization of change in assumptions  | -                        | -                   | (31,979)             | 31,979             |
| Benefit Payments, including Refunds of Employee Contributions   | (221,582)                | -                   | -                    | -                  |
| Net change  | <u>291,425</u>           | <u>69,669</u>       | <u>(16,325)</u>      | <u>599,001</u>     |
| Plan Fiduciary Net Position:  |                          |                     |                      |                    |
| Contributions - Employer  | 129,209                  | -                   | (129,209)            | -                  |
| Contributions - State   | 56,051                   | -                   | (56,051)             | -                  |
| Contributions - Employee  | 77,838                   | -                   | -                    | (77,838)           |
| Contributions - Buy Back  | 42,166                   | -                   | -                    | (42,166)           |
| Projected Net Investment Income   | 298,334                  | -                   | -                    | (298,334)          |
| Difference between projected and actual earnings on Pension Plan investments                          | (143,708)                | -                   | 143,708              | -                  |
| Current year amortization   | -                        | (58,154)            | (78,443)             | 20,289             |
| Benefit Payments, including Refunds of Employee Contributions   | (221,582)                | -                   | -                    | -                  |
| Administrative Expenses   | (47,021)                 | -                   | -                    | 47,021             |
| Net change  | <u>191,287</u>           | <u>(58,154)</u>     | <u>(119,995)</u>     | <u>(351,028)</u>   |
| Ending Balance  | <u>\$ 376,825</u>        | <u>\$ 264,370</u>   | <u>TBD</u>           | <u>\$ 247,973</u>  |

\* Employer and State 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                                       | \$ 143,708  | 5                          | \$ -        | \$ 28,740   | \$ 28,742   | \$ 28,742   | \$ 28,742   | \$ 28,742 | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2018                                       | \$ (69,952)                                       | 5                          | \$ (13,992) | \$ (13,990) | \$ (13,990) | \$ (13,990) | \$ (13,990) | \$ -      | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2017                                       | \$ (139,383)                                      | 5                          | \$ (27,877) | \$ (27,877) | \$ (27,877) | \$ (27,877) | \$ -        | \$ -      | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2016                                       | \$ (81,437)                                       | 5                          | \$ (16,287) | \$ (16,287) | \$ (16,287) | \$ -        | \$ -        | \$ -      | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2015                                       | \$ 248,514  | 5                          | \$ 49,703   | \$ 49,703   | \$ -        | \$ -        | \$ -        | \$ -      | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2014                                       | \$ (62,987)                                       | 5                          | \$ (12,597) | \$ -        | \$ -        | \$ -        | \$ -        | \$ -      | \$ - | \$ - | \$ - | \$ - | \$ - |
| Net Increase (Decrease) in Pension Expense |   |                            | \$ (21,050) | \$ 20,289   | \$ (29,412) | \$ (13,125) | \$ 14,752   | \$ 28,742 | \$ - | \$ - | \$ - | \$ - | \$ - |



AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

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

| Plan Year<br>Ending                        | Changes of<br>Assumptions | Recognition<br>Period (Years) | 2019      | 2020      | 2021      | 2022      | 2023      | 2024      | 2025 | 2026 | 2027 | 2028 | 2029 |
|--|---------------------------|-------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------|------|------|------|------|
| 2019                                       | \$ 72,739                 | 5                             | \$ -      | \$ 14,547 | \$ 14,548 | \$ 14,548 | \$ 14,548 | \$ 14,548 | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2016                                       | \$ 87,160                 | 5                             | \$ 17,432 | \$ 17,432 | \$ 17,432 | \$ -      | \$ -      | \$ -      | \$ - | \$ - | \$ - | \$ - | \$ - |
| Net Increase (Decrease) in Pension Expense |                           |                               | \$ 17,432 | \$ 31,979 | \$ 31,980 | \$ 14,548 | \$ 14,548 | \$ 14,548 | \$ - | \$ - | \$ - | \$ - | \$ - |

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                                       | \$ (118,437)                                       | 5                          | \$ -        | \$ (23,689) | \$ (23,687) | \$ (23,687) | \$ (23,687) | \$ (23,687) | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2018                                       | \$ 204,944   | 6                          | \$ 34,159   | \$ 34,157   | \$ 34,157   | \$ 34,157   | \$ 34,157   | \$ 34,157   | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2017                                       | \$ (91,598)  | 6                          | \$ (15,266) | \$ (15,266) | \$ (15,266) | \$ (15,266) | \$ (15,266) | \$ -        | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2016                                       | \$ 114,638   | 5                          | \$ 22,928   | \$ 22,928   | \$ 22,928   | \$ -        | \$ -        | \$ -        | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2015                                       | \$ (58,880)  | 6                          | \$ (9,813)  | \$ (9,813)  | \$ (9,813)  | \$ -        | \$ -        | \$ -        | \$ - | \$ - | \$ - | \$ - | \$ - |
| Net Increase (Decrease) in Pension Expense |  |                            | \$ 32,008   | \$ 8,317    | \$ 8,319    | \$ (4,796)  | \$ (4,796)  | \$ 10,470   | \$ - | \$ - | \$ - | \$ - | \$ - |