

CITY OF PUNTA GORDA
POLICE OFFICERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2019

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

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



FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

December 18, 2019

Board of Trustees
Punta Gorda Police Pension Board

Re: City of Punta Gorda Police Officers' Retirement System

Dear Board:

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

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Chapters 112 and 185, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuations, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuations, we did not perform an analysis of the potential range of such future measurements.

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

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


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


To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Punta Gorda, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police Officers' Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

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

Respectfully submitted,

Foster & Foster, Inc.

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


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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Punta Gorda Police Officers' Retirement System, performed as of October 1, 2019, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2021.

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

Valuation Date Applicable to Fiscal Year Ending	10/1/2019 <u>9/30/2021</u>	10/1/2018 <u>9/30/2020</u>
Minimum Required Contribution	\$971,878	\$910,874
Member Contributions (Est.)	208,500	209,216
City And State Required Contribution	763,378	701,658
State Contribution (Est.) ¹	200,630	200,630
City Required Contribution ²	\$562,748	\$501,028

¹ Represents the amount received in fiscal 2019, based on the Mutual Consent Agreement (MCA). Under the MCA, the City may use up to \$200,000, if received, in determining their required contribution. Any amounts over that will be split, with 50% going to reduce bottom line City Funding Requirement and 50% into Share Plan for the Police Officers.

² Assumes that the City will make their full contribution at the beginning of the fiscal year. To the extent that the contribution is made later than October 1st of a given year, the contribution will need to be increased with interest.

As you can see, the Minimum Required Contribution shows an increase when compared to the results determined in the October 1, 2018 actuarial valuation. The increase is attributable to a change in assumptions.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial gain included and an investment return of 8.06% (Actuarial Asset Basis) which exceeded the 7.75% assumption. These gains were offset in part by a loss associated with inactive mortality experience.

CHANGES SINCE PRIOR VALUATION

Plan Changes

Since the prior valuation, Ordinance 2019-21 was adopted which clarified language, and made changes to comply with updates to the Internal Revenue Code. This change has no impact on the valuation results.

Actuarial Assumption/Method Changes

As a result of the Experience Study dated June 19, 2019, the Board approved the following changes to the assumptions and methods:

- 1.) Reduce Investment Return assumption from 7.75% to 7.00%.
- 2.) Amend assumed individual salary increases from a flat 6.0% per year to a service-based table.
- 3.) Amend assumed rates of Retirement to be 100% at 25 years, otherwise 50% at first eligibility, 20% for next 4 years of eligibility and 100% at 5 years after first eligibility.
- 4.) Increase all expected termination rates by 25%.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2019</u>	Old Assump <u>10/1/2019</u>	<u>10/1/2018</u>
A. Participant Data			
Actives	36	36	36
Service Retirees	28	28	26
DROP Retirees	0	0	0
Beneficiaries	2	2	2
Disability Retirees	5	5	4
Terminated Vested	<u>10</u>	<u>10</u>	<u>9</u>
Total	81	81	77
Total Annual Payroll	\$2,628,081	\$2,620,841	\$2,467,169
Payroll Under Assumed Ret. Age	2,452,018	2,620,841	2,467,169
Annual Rate of Payments to:			
Service Retirees	960,988	960,988	882,815
DROP Retirees	0	0	0
Beneficiaries	20,535	20,535	20,535
Disability Retirees	107,713	107,713	70,538
Terminated Vested	107,142	107,142	146,264
B. Assets			
Actuarial Value (AVA) ¹	18,449,968	18,449,968	17,340,342
Market Value (MVA) ¹	18,372,707	18,372,707	17,921,812
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	10,773,239	10,342,751	9,992,336
Disability Benefits	204,380	164,223	89,405
Death Benefits	220,945	165,323	122,572
Vested Benefits	1,021,922	783,317	739,174
Refund of Contributions	37,671	30,540	22,285
Service Retirees	11,519,158	10,740,847	10,004,822
DROP Retirees ¹	0	0	0
Beneficiaries	161,480	152,888	160,904
Disability Retirees	1,195,940	1,121,487	673,849
Terminated Vested	1,000,395	899,745	1,263,579
Share Plan Balances ¹	<u>2,873</u>	<u>2,873</u>	<u>2,155</u>
Total	26,138,003	24,403,994	23,071,081

C. Liabilities - (Continued)	New Assump <u>10/1/2019</u>	Old Assump <u>10/1/2019</u>	<u>10/1/2018</u>
Present Value of Future Salaries	19,833,316	18,295,039	15,616,221
Present Value of Future Member Contributions	1,586,665	1,463,603	1,249,298
Total Normal Cost	588,211	623,498	655,305
Present Value of Future Normal Costs (EAN)	4,680,743	4,275,348	3,978,116
Accrued Liability (Retirement)	7,063,152	6,828,559	6,638,404
Accrued Liability (Disability)	51,994	41,759	31,672
Accrued Liability (Death)	76,111	56,407	57,803
Accrued Liability (Vesting)	377,919	277,316	255,526
Accrued Liability (Refunds)	8,238	6,764	4,251
Accrued Liability (Inactives) ¹	13,876,973	12,914,967	12,103,154
Share Plan Balances ¹	<u>2,873</u>	<u>2,873</u>	<u>2,155</u>
Total Actuarial Accrued Liability (EAN AL)	21,457,260	20,128,645	19,092,965
Total Actuarial Accrued Liability (FIL)	21,380,219	20,051,604	18,923,252
Unfunded Actuarial Accrued Liability (UAAL)	2,930,251	1,601,636	1,582,910
Funded Ratio (AVA / EAN AL)	86.0%	91.7%	90.8%
Funded Ratio (AVA / FIL AL)	86.3%	92.0%	91.6%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2019</u>	Old Assump <u>10/1/2019</u>	<u>10/1/2018</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances ¹	13,879,846	12,917,840	12,105,309
Actives	4,527,849	4,483,813	4,071,794
Member Contributions	<u>1,201,530</u>	<u>1,201,530</u>	<u>1,156,561</u>
Total	19,609,225	18,603,183	17,333,664
Non-vested Accrued Benefits	<u>276,738</u>	<u>269,280</u>	<u>216,916</u>
Total Present Value Accrued Benefits (PVAB)	19,885,963	18,872,463	17,550,580
Funded Ratio (MVA / PVAB)	92.4%	97.4%	102.1%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	1,013,500	0	
Plan Experience	0	1,036,247	
Benefits Paid	0	(1,034,449)	
Interest	0	1,320,085	
Other	<u>0</u>	<u>0</u>	
Total	1,013,500	1,321,883	

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

E. Pension Cost

Normal Cost ²	\$625,209	\$660,908	\$694,623
Administrative Expenses ²	67,964	67,779	55,633
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 23 years (as of 10/1/2019) ²	278,705	168,230	160,618
Minimum Required Contribution	971,878	896,917	910,874
Expected Member Contributions ²	208,500	222,247	209,216
Expected City and State Contribution	763,378	674,670	701,658

F. Past Contributions

Plan Years Ending:	<u>9/30/2019</u>
City and State Requirement	598,561
Actual Contributions Made:	
Members (excluding buyback)	198,663
City	432,825
State	<u>200,630</u>
Total	832,118

G. Net Actuarial (Gain)/Loss N/A

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

² Contributions developed as of 10/1/2019 displayed above have been adjusted to account for assumed salary increase components.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2019	2,930,251
2020	2,854,801
2021	2,756,890
2026	2,094,449
2032	1,054,212
2037	234,067
2042	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2019	9.36%	6.00%
Year Ended 9/30/2018	4.90%	6.00%
Year Ended 9/30/2017	13.58%	6.00%
Year Ended 9/30/2016	8.76%	6.00%
Year Ended 9/30/2015	3.96%	7.00%

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

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2019	4.06%	8.06%	7.75%
Year Ended 9/30/2018	9.54%	6.62%	7.75%
Year Ended 9/30/2017	10.94%	6.67%	7.75%
Year Ended 9/30/2016	7.83%	7.14%	7.75%
Year Ended 9/30/2015	-1.39%	9.03%	8.00%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2019	\$2,452,018
	10/1/2009	2,098,774
(b) Total Increase		16.83%
(c) Number of Years		10.00
(d) Average Annual Rate		1.57%

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.



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

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

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

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

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2018	\$1,582,910
(2) Sponsor Normal Cost developed as of October 1, 2018	457,931
(3) Expected administrative expenses for the year ended September 30, 2019	52,484
(4) Expected interest on (1), (2) and (3)	160,199
(5) Sponsor contributions to the System during the year ended September 30, 2019	633,455
(6) Expected interest on (5)	18,433
(7) Unfunded Actuarial Accrued Liability as of September 30, 2019 (1)+(2)+(3)+(4)-(5)-(6)	1,601,636
(8) Change to UAAL due to Assumption Change	1,328,615
(9) Unfunded Actuarial Accrued Liability as of October 1, 2019	2,930,251

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2019 <u>Amount</u>	Amortization <u>Amount</u>
"B"	10/1/1990	1	(13,682)	(13,682)
"C"	10/1/1993	4	(80,665)	(21,987)
"D"	10/1/1994	5	104,556	23,453
"E"	10/1/1995	6	32,991	6,342
"F"	10/1/2004	15	662,236	64,642
Method Change	10/1/2008	9	(86,518)	(12,036)
Assump Changes	10/1/2009	10	403,026	51,831
Benefit Changes	10/1/2012	23	(37,659)	(2,908)
Assump Changes	10/1/2015	16	211,830	19,877
Assump Changes	10/1/2016	17	405,521	36,714
Assump Changes	10/1/2019	20	<u>1,328,615</u>	<u>109,966</u>
			2,930,251	262,212

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

Healthy Active Lives:

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

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

Healthy Inactive Lives:

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

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

Disabled Lives:

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

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

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

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

Interest Rate

7.00% (prior year 7.75%) per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Salary Increases

See table on the following page (prior year 6.00%). This assumption was adopted as a result of the June 19, 2019 experience study.

Payroll Growth

0.86% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.

Administrative Expenses \$63,942 annually, based on the average of actual expenses incurred in the prior two fiscal years.

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

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

Retirement Age 100% at 25 years of service, otherwise 50% at first eligibility, 20% for next 4 years of eligibility, and 100% at 5 years after first eligibility. This assumption was adopted as a result of the June 19, 2019 experience study.

Early Retirement Commencing upon eligibility for Early Retirement, Members are assumed to retire with an immediate subsidized benefit at the rate of 2% per year.

Termination Rates See table below. This assumption was adopted as a result of the June 19, 2019 experience study.

Disability Rates See table below. It is assumed that 75% of disablements are service related.

Funding Method Frozen Entry Age Actuarial Cost Method.

Asset Valuation Method Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

% Terminating During the Year		% Becoming Disabled During the Year		Salary Scale	
Age	Rate	Age	Rate	Service	Rate
20	11.6%	20	0.03%	0-4	7.50%
25	11.0%	25	0.03%	5-9	5.50%
30	9.8%	30	0.04%	10-14	5.00%
35	7.8%	35	0.05%	15+	4.50%
40	5.3%	40	0.07%		
45	3.3%	45	0.10%		
50	1.4%	50	0.18%		
55	0.6%	55	0.36%		
60	0.5%	60	0.90%		
65+	0.0%	65+	2.22%		

GLOSSARY

Total Annual Payroll is the annual rate of pay for the year following the valuation date of all covered Members.

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

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded.

Unfunded Accrued Liability is a liability which arises when a pension plan is initially established or improved and such establishment or improvement is applicable to all years of past service.

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

Frozen Entry Age Method is the method used to determine required contributions under the Plan. The use of this method involves the systematic funding of the Normal Cost (described above) and the Unfunded Actuarial Accrued (Past Service) Liability. See the "Reconciliation of Unfunded Actuarial Accrued Liabilities" for details regarding the current status of the liability.

DISCUSSION OF RISK

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

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

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

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

Impact of Plan Maturity on Risk

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

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

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 106.5% on October 1, 2016 to 87.8% on October 1, 2019, indicating that the plan has been maturing during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 64.7%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has decreased from 90.6% on October 1, 2016 to 86.0% on October 1, 2019, due to net unfavorable experience realized by the plan and assumption changes implemented during the period.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, stayed approximately the same from October 1, 2016 to October 1, 2019. The current Net Cash Flow Ratio of -1.5% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

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

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Support Ratio</u>				
Total Actives	33	30	36	36
Total Inactives ¹	31	36	38	41
Actives / Inactives ¹	106.5%	83.3%	94.7%	87.8%
 <u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	14,958,607	16,611,370	17,921,812	18,372,707
Total Annual Payroll	2,269,073	2,159,205	2,467,169	2,628,081
MVA / Total Annual Payroll	659.2%	769.3%	726.4%	699.1%
 <u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	9,208,674	10,697,516	12,103,154	13,876,973
Total Accrued Liability (EAN)	17,106,803	18,373,350	19,092,965	21,457,260
Inactive AL / Total AL	53.8%	58.2%	63.4%	64.7%
 <u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	15,494,704	16,534,196	17,340,342	18,449,968
Total Accrued Liability (EAN)	17,106,803	18,373,350	19,092,965	21,457,260
AVA / Total Accrued Liability (EAN)	90.6%	90.0%	90.8%	86.0%
 <u>Net Cash Flow Ratio</u>				
Net Cash Flow ²	(290,457)	(28,423)	(278,853)	(277,101)
Market Value of Assets (MVA)	14,958,607	16,611,370	17,921,812	18,372,707
Ratio	-1.9%	-0.2%	-1.6%	-1.5%

¹ Excludes terminated participants awaiting a refund of member contributions.

² Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	140,355.78	_____%
1999	143,016.51	1.9%
2000	141,462.32	-1.1%
2001	133,021.82	-6.0%
2002	151,286.76	13.7%
2003	204,142.52	34.9%
2004	192,054.74	-5.9%
2005	193,250.75	0.6%
2006	195,983.19	1.4%
2007	194,294.13	-0.9%
2008	196,610.96	1.2%
2009	187,816.34	-4.5%
2010	169,342.97	-9.8%
2011	172,401.35	1.8%
2012	175,494.90	1.8%
2013	168,454.93	-4.0%
2014	173,164.86	2.8%
2015	174,721.57	0.9%
2016	189,148.95	8.3%
2017	194,169.82	2.7%
2018	204,310.60	5.2%
2019	201,260.07	-1.5%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2019

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	174,954.19	174,954.19
Total Cash and Equivalents	174,954.19	174,954.19
Receivables:		
Investment Income	34,486.51	34,486.51
Total Receivable	34,486.51	34,486.51
Investments:		
U. S. Bonds and Bills	1,807,453.67	1,960,227.85
Federal Agency Guaranteed Securities	38,827.05	38,310.14
Corporate Bonds	2,851,913.49	2,871,353.40
Mutual Funds:		
Fixed Income	989,714.04	849,876.59
Equity	10,767,053.03	11,132,224.62
Pooled/Common/Commingled Funds:		
Real Estate	1,000,000.00	1,327,314.24
Total Investments	17,454,961.28	18,179,306.84
Total Assets	17,664,401.98	18,388,747.54
<u>LIABILITIES</u>		
Payables:		
Benefit Payments	1,239.16	1,239.16
Investment Expenses	10,336.65	10,336.65
Administrative Expenses	4,464.76	4,464.76
Total Liabilities	16,040.57	16,040.57
NET POSITION RESTRICTED FOR PENSIONS	17,648,361.41	18,372,706.97

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

ADDITIONS

Contributions:		
Member		198,663.35
City		432,825.00
State		201,260.07
Total Contributions		832,748.42
Investment Income:		
Net Realized Gain (Loss)	928,999.25	
Unrealized Gain (Loss)	(703,979.38)	
Net Increase in Fair Value of Investments		225,019.87
Interest & Dividends		555,929.78
Less Investment Expense ¹		(52,953.99)
Net Investment Income		727,995.66
Total Additions		1,560,744.08

DEDUCTIONS

Distributions to Members:		
Benefit Payments		1,034,449.36
Lump Sum DROP Distributions		0.00
Lump Sum Share Distributions		0.00
Refunds of Member Contributions		0.00
Total Distributions		1,034,449.36
Administrative Expense		75,399.75
Total Deductions		1,109,849.11
Net Increase in Net Position		450,894.97
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		17,921,812.00
End of the Year		18,372,706.97

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

ACTUARIAL ASSET VALUATION
SEPTEMBER 30, 2019

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

Details of the derivation are set forth as follows:

Plan Year End	Rate of Return ¹	
09/30/2016	7.83%	
09/30/2017	10.94%	
09/30/2018	9.54%	
09/30/2019	4.06%	
Annualized Rate of Return for prior four (4) years:		8.06%
(A) 10/01/2018 Actuarial Assets:		\$17,340,342.28
(I) Net Investment Income:		
1. Interest and Dividends	555,929.78	
2. Realized Gains (Losses)	928,999.25	
3. Unrealized Gains (Losses)	(703,979.38)	
4. Change in Actuarial Value	658,730.63	
5. Investment Related Expenses	(52,953.99)	
Total		1,386,726.29
(B) 10/01/2019 Actuarial Assets:		\$18,449,967.88
Actuarial Asset Rate of Return = 2I/(A+B-I):		8.06%
10/01/2019 Limited Actuarial Assets:		\$18,449,967.88
10/01/2019 Market Value of Assets:		\$18,372,706.97
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)		\$53,335.63

¹Market Value Basis, net of investment related expenses.

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

REVENUES

Contributions:		
Member	198,663.35	
City	432,825.00	
State	201,260.07	
Total Contributions		832,748.42
Earnings from Investments:		
Interest & Dividends	555,929.78	
Net Realized Gain (Loss)	928,999.25	
Unrealized Gain (Loss)	(703,979.38)	
Change in Actuarial Value	658,730.63	
Total Earnings and Investment Gains		1,439,680.28

EXPENDITURES

Distributions to Members:		
Benefit Payments	1,034,449.36	
Lump Sum DROP Distributions	0.00	
Lump Sum Share Distributions	0.00	
Refunds of Member Contributions	0.00	
Total Distributions		1,034,449.36
Expenses:		
Investment related ¹	52,953.99	
Administrative	75,399.75	
Total Expenses		128,353.74
Change in Net Assets for the Year		1,109,625.60
Net Assets Beginning of the Year		17,340,342.28
Net Assets End of the Year ²		18,449,967.88

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

²Net Assets may be limited for actuarial consideration.

SUPPLEMENTAL CHAPTER 185 SHARE PLAN ACTIVITY
October 1, 2018 through September 30, 2019

9/30/2018 Balance	2,155.30
Prior Year Adjustment	0.00
Plus Additions	630.03
Investment Return Earned	87.51
Administrative Fees	0.00
Less Distributions	0.00
9/30/2019 Balance (Est)	2,872.84

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2019

(1) Required City and State Contributions	\$598,561.00
(2) Less Allowable State Contribution	<u>(200,630.04)</u>
(3) Required City Contribution for Fiscal 2019	397,930.96
(4) Less 2018 Prepaid Contribution	0.00
(5) Less Actual City Contributions	<u>(432,825.00)</u>
(6) City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2019	(\$34,894.04)

STATISTICAL DATA

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Actives</u>				
Number	33	30	36	36
Average Current Age	41.7	41.3	41.5	39.8
Average Age at Employment	32.5	32.3	34.7	33.0
Average Past Service	9.2	9.0	6.8	6.8
Average Annual Salary	\$68,760	\$71,974	\$68,532	\$73,002
<u>Service Retirees</u>				
Number	20	20	26	28
Average Current Age	62.0	63.0	61.1	62.1
Average Annual Benefit	\$31,454	\$31,454	\$33,954	\$34,321
<u>DROP Retirees</u>				
Number	1	1	0	0
Average Current Age	55.3	56.3	N/A	N/A
Average Annual Benefit	\$55,753	\$55,753	N/A	N/A
<u>Beneficiaries</u>				
Number	2	2	2	2
Average Current Age	61.1	62.1	63.1	64.1
Average Annual Benefit	\$10,268	\$10,268	\$10,268	\$10,268
<u>Disability Retirees</u>				
Number	5	5	4	5
Average Current Age	58.7	59.7	62.6	60.3
Average Annual Benefit	\$17,106	\$17,106	\$17,635	\$21,543
<u>Terminated Vested</u>				
Number	5	11	9	10
Average Current Age ¹	42.8	42.0	43.6	41.9
Average Annual Benefit ²	\$16,643	\$27,693	\$24,377	\$17,857

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

² The Average Annual Benefit excludes participants awaiting a refund of contributions.

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	0	1	0	0	0	0	0	0	0	0	0	1
25 - 29	3	0	3	1	1	0	0	0	0	0	0	8
30 - 34	1	2	0	1	1	1	0	0	0	0	0	6
35 - 39	0	1	0	0	0	3	1	0	0	0	0	5
40 - 44	0	0	0	1	0	1	0	0	0	0	0	2
45 - 49	0	2	0	0	0	0	1	1	1	0	0	5
50 - 54	0	1	0	0	0	0	1	0	2	0	0	4
55 - 59	0	1	0	0	0	0	0	1	0	0	0	2
60 - 64	0	1	0	0	0	0	2	0	0	0	0	3
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	9	3	3	2	5	5	2	3	0	0	36

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2018	36
b. Terminations	
i. Vested (partial or full) with deferred annuity	(1)
ii. Vested in refund of member contributions only	(1)
iii. Refund of member contributions or full lump sum distribution received	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	(1)
e. Retired	(1)
f. DROP	<u>0</u>
g. Continuing participants	32
h. New entrants	<u>4</u>
i. Total active life participants in valuation	36

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

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	26	0	2	4	6	3	41
Retired	2	0	0	0	(1)	0	1
DROP	0	0	0	0	0	0	0
Vested (Deferred Annuity)	0	0	0	0	1	0	1
Vested (Due Refund)	0	0	0	0	0	1	1
Hired/Terminated in Same Year	0	0	0	0	0	0	0
Death, With Survivor	0	0	0	0	0	0	0
Death, No Survivor	0	0	0	0	0	0	0
Disabled	0	0	0	1	0	0	1
Refund of Contributions	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0
b. Number current valuation	28	0	2	5	6	4	45

SUMMARY OF CURRENT PLAN
(Through Ordinance 1921-19)

ORIGINAL EFFECTIVE DATE	November 19, 1957.
LATEST AMENDMENT	June 19, 2019.
CREDITED SERVICE	Years and fractional parts of years of service with the City as a Police Officer.
AVERAGE FINAL COMPENSATION (AFC)	1/12 th of the average total cash compensation, plus tax deferred, tax sheltered, and tax exempt items of income paid during the three (3) highest years of the last ten (10) years of Credited Service. Effective October 2, 2013, Salary shall not include more than 300 hours of overtime per fiscal year and health insurance premiums, clothing/cleaning allowance, education allowance or stipend and special detail pay will no longer be included as pensionable Salary. Salary will include the lesser of the amount of sick and vacation leave time for which the retiree receives payment at the time of retirement and the accrued time as of October 2, 2013.
NORMAL RETIREMENT	
Eligibility	Members Hired before December 18, 2013: Earlier of age 45 and the completion of 20 years of Credited Service, or age 55. Members Hired on & after December 18, 2013: Earlier of age 55 and the completion of 10 years of Credited Service or 25 years of Credited Service regardless of age.
Benefit Amount	Members Hired before December 18, 2013: 3.50% of Average Final Compensation times Credited Service. Members Hired on & after December 18, 2013: 3.00% of Average Final Compensation times Credited Service.
Form of Benefit	10 year certain and life thereafter (options available).

EARLY RETIREMENT

Eligibility	Age 45 and 10 years of Credited Service.
Benefit Amount	Accrued benefit, reduced 3.00% per year early.

VESTING (TERMINATION)

Less than 5 years	Refund of Member Contributions.
5 years or more	Accrued benefit payable at age 45 or later, on a reduced basis if to commence prior to Normal Retirement Date or refund of Member Contributions.

DISABILITY

Eligibility	a) 10 years of service for non-service related; coverage from date of hire for service-incurred. b) Total and permanent disability prior to Normal Retirement Date.
Benefit Amount	3.50% of Average Final Compensation times Credited Service, but not less than 60% of AFC for service incurred disabilities.

DEATH

Pre-Retirement	
Service-Incurred With Spouse / or Dependent Child	<u>To Spouse:</u> 60% of Member's Average Final Compensation. <u>To each Child (if no spouse):</u> 15% of Member's AFC. Overall maximum benefit to children is 60% of AFC.
Non-Service-Incurred or No Spouse or Children	Value of accrued pension benefit paid to designated beneficiary.

CONTRIBUTIONS

Employee	8.00% of total pay.
Premium Tax	0.85% tax on premiums for casualty insurance policies.
City	Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability as provided in Part VII of Chapter 112, Florida Statutes.

BOARD OF TRUSTEES

- a) Two City Council appointees,
- b) Two Members of the System elected by a majority of the other covered Police Officers, and
- c) A fifth Member elected by the other four Members.

DEFERRED RETIREMENT OPTION PLAN

Eligibility	Satisfaction of Normal Retirement requirements (earlier of Age 55, or Age 45 with 20 years of Credited Service).
Participation	Not to exceed 60 months.
Rate of Return	At Member's election: <ol style="list-style-type: none">a) Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each fiscal quarter, orb) 6.50% per annum compounded monthly. Members may elect to change form of return one time during the period of DROP participation.
Form of Distribution	Cash lump sum (options available) at termination of employment.

CHAPTER 185 SHARE PLAN

Each year, 50% of State Monies received in excess of \$200,000 is allocated to the Share Plan.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2019

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	174,954
Total Cash and Equivalents	174,954
Receivables:	
Investment Income	34,487
Total Receivable	34,487
Investments:	
U. S. Bonds and Bills	1,960,228
Federal Agency Guaranteed Securities	38,310
Corporate Bonds	2,871,353
Mutual Funds:	
Fixed Income	849,877
Equity	11,132,225
Pooled/Common/Commingled Funds:	
Real Estate	1,327,314
Total Investments	18,179,307
Total Assets	18,388,748
<u>LIABILITIES</u>	
Payables:	
Benefit Payments	1,239
Investment Expenses	10,337
Administrative Expenses	4,465
Total Liabilities	16,041
NET POSITION RESTRICTED FOR PENSIONS	18,372,707

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

ADDITIONS

Contributions:

Member	198,663	
City	432,825	
State	201,260	
 Total Contributions		 832,748
 Investment Income:		
Net Increase in Fair Value of Investments	225,020	
Interest & Dividends	555,930	
Less Investment Expense ¹	(52,954)	
 Net Investment Income		 727,996
 Total Additions		 1,560,744

DEDUCTIONS

Distributions to Members:

Benefit Payments	1,034,449	
Lump Sum DROP Distributions	0	
Lump Sum Share Distributions	0	
Refunds of Member Contributions	0	
 Total Distributions		 1,034,449
 Administrative Expense		 75,400
 Total Deductions		 1,109,849
 Net Increase in Net Position		 450,895
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		17,921,812
 End of the Year		 18,372,707

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 comprised of:

- a) Two City Council appointees,
- b) Two Members of the System elected by a majority of the other covered Police Officers, and a
- c) Fifth Member elected by the other four Members.

Plan Membership as of October 1, 2018:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	32
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	9
Active Plan Members	36
	77

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 Punta Gorda Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Employee: 8.00% of total pay.

Premium Tax: 0.85% tax on premiums for casualty insurance policies.

City: Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability as provided in Part VII of Chapter 112, Florida Statutes.

Investment Policy:

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

Asset Class	Target Allocation
Domestic Equity	45.00%
International Equity	15.00%
Broad Market Fixed Income	27.50%
Global Fixed Income	5.00%
Real Estate	7.50%
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 4.06 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 Age 55, or Age 45 with 20 years of Credited Service).

Participation: Not to exceed 60 months.

Rate of Return: At Member's election:

- (1) Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each fiscal quarter, or
- (2) 6.50% per annum compounded monthly.

Members may elect to change form of return one time during the period of DROP participation.

The DROP balance as September 30, 2019 is \$0.

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	\$ 21,117,875
Plan Fiduciary Net Position	\$ (18,372,707)
Sponsor's Net Pension Liability	\$ 2,745,168
Plan Fiduciary Net Position as a percentage of Total Pension Liability	87.00%

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	7.00%
Investment Rate of Return	7.00%

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 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 valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

75% of active Member deaths are assumed to be service related.

The most recent actuarial experience study used to review the other significant assumptions was dated June 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%
Global Fixed Income	3.50%
Real Estate	4.50%

GASB 67

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	\$ 5,274,578	\$ 2,745,168	\$ 650,045

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	709,884	593,416	636,723
Interest	1,501,423	1,448,738	1,360,108
Change in Excess State Money	-	-	(134)
Share Plan Allocation	630	2,156	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(230,763)	(435,224)	51,450
Changes of assumptions	990,613	-	-
Contributions - Buy Back	-	-	34,736
Benefit Payments, including Refunds of Employee Contributions	(1,034,449)	(1,057,059)	(735,142)
Net Change in Total Pension Liability	1,937,338	552,027	1,347,741
Total Pension Liability - Beginning	19,180,537	18,628,510	17,280,769
Total Pension Liability - Ending (a)	<u>\$ 21,117,875</u>	<u>\$ 19,180,537</u>	<u>\$ 18,628,510</u>
Plan Fiduciary Net Position			
Contributions - Employer	432,825	449,219	356,145
Contributions - State	201,260	204,311	194,170
Contributions - Employee	198,663	177,160	185,399
Contributions - Buy Back	-	-	34,736
Net Investment Income	727,996	1,589,295	1,646,451
Benefit Payments, including Refunds of Employee Contributions	(1,034,449)	(1,057,059)	(735,142)
Administrative Expense	(75,400)	(52,484)	(28,996)
Net Change in Plan Fiduciary Net Position	450,895	1,310,442	1,652,763
Plan Fiduciary Net Position - Beginning	17,921,812	16,611,370	14,958,607
Plan Fiduciary Net Position - Ending (b)	<u>\$ 18,372,707</u>	<u>\$ 17,921,812</u>	<u>\$ 16,611,370</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,745,168</u>	<u>\$ 1,258,725</u>	<u>\$ 2,017,140</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	87.00%	93.44%	89.17%
Covered Payroll ¹	\$ 2,483,295	\$ 2,214,507	\$ 2,317,484
Net Pension Liability as a percentage of Covered Payroll	110.55%	56.84%	87.04%

Notes to Schedule:

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

Changes of Assumptions:

For measurement date 09/30/2019, amounts reported as changes of assumptions resulted from an Experience Study dated June 19, 2019, the Board approved the following changes to the assumptions and methods:

- 1.) Reduce Investment Return assumption from 7.75% to 7.00%.
- 2.) Amend assumed individual salary increases from a flat 6.0% per year to a service based table.
- 3.) Amend assumed rates of Retirement to be 100% at 25 years, otherwise 50% at first eligibility, 20% for next 4 years of eligibility and 100% at 5 years after first eligibility.
- 4.) Increase all expected termination rates by 25%.

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	555,746	570,363	526,910
Interest	1,263,445	1,286,569	1,210,004
Change in Excess State Money	-	-	-
Share Plan Allocation	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(141,785)	(802,974)	-
Changes of assumptions	377,986	164,476	-
Contributions - Buy Back	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(1,043,059)	(923,770)	(722,843)
Net Change in Total Pension Liability	1,012,333	294,664	1,014,071
Total Pension Liability - Beginning	16,268,436	15,973,772	14,959,701
Total Pension Liability - Ending (a)	<u>\$ 17,280,769</u>	<u>\$ 16,268,436</u>	<u>\$ 15,973,772</u>
Plan Fiduciary Net Position			
Contributions - Employer	409,363	513,912	548,795
Contributions - State	189,149	174,722	173,165
Contributions - Employee	175,660	159,694	147,103
Contributions - Buy Back	-	-	-
Net Investment Income	1,108,041	(205,046)	1,265,663
Benefit Payments, including Refunds of Employee Contributions	(1,043,059)	(923,770)	(722,843)
Administrative Expense	(21,570)	(23,002)	(14,496)
Net Change in Plan Fiduciary Net Position	817,584	(303,490)	1,397,387
Plan Fiduciary Net Position - Beginning	14,141,023	14,444,513	13,047,126
Plan Fiduciary Net Position - Ending (b)	<u>\$ 14,958,607</u>	<u>\$ 14,141,023</u>	<u>\$ 14,444,513</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,322,162</u>	<u>\$ 2,127,413</u>	<u>\$ 1,529,259</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.56%	86.92%	90.43%
Covered Payroll ¹	\$ 2,195,754	\$ 2,171,581	\$ 1,838,786
Net Pension Liability as a percentage of Covered Payroll	105.76%	97.97%	83.17%

Notes to Schedule:

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

Changes of Assumptions:

For measurement date 09/30/2016, 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.

For measurement date 09/30/2015 the investment rate of return has been lowered from 8.00% to 7.75% per year, net of investment related expenses and the salary increase assumption has been lowered from 7.00% to 6.00%.

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	\$ 598,561	\$ 633,455	\$ (34,894)	\$ 2,483,295	25.51%
09/30/2018	\$ 638,368	\$ 651,374	\$ (13,006)	\$ 2,214,507	29.41%
09/30/2017	\$ 531,593	\$ 550,315	\$ (18,722)	\$ 2,317,484	23.75%
09/30/2016	\$ 576,560	\$ 598,512	\$ (21,952)	\$ 2,195,754	27.26%
09/30/2015	\$ 688,345	\$ 688,634	\$ (289)	\$ 2,171,581	31.71%
09/30/2014	\$ 704,255	\$ 721,960	\$ (17,705)	\$ 1,838,786	39.26%

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

Notes to Schedule

Valuation Date: 10/01/2017

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 Lives (Inactive):

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

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

Healthy Lives (Active):

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.

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 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. We feel this assumption sufficiently accommodates future mortality improvements.

75% of active deaths are assumed to occur in the line of duty.

Termination Rates:

See Table on following page; this assumption was adopted as a result of the July 22, 2010 experience study.

Disability Rates:

See Table on following page. It is assumed that 75% of disablements and active Member deaths are service related.

Retirement Age:

Earlier of age 46 and the completion of 21 years of service, or age 56. Also, any member who has reached Normal Retirement is assumed to continue employment for one additional year. This assumption was adopted as a result of the July 22, 2010 experience study.

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Early Retirement:	Commencing upon eligibility for Early Retirement, Members are assumed to retire with an immediate subsidized benefit at the rate of 2% per year.
Interest Rate:	7.75% per year, compounded annually, net of investment related expenses. We feel this is reasonable based on asset allocation and long term expectations.
Salary Increases:	6.00% per year up to the assumed retirement age; see Table below. Final salary in year of retirement is increased individually, based on data provided by the City, to account for additional non-regular compensation.
Payroll Growth:	0.86% per year.
Funding Method:	Frozen Entry Age Actuarial Cost Method.
Asset Valuation Method:	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

Termination and Disability Rate Table:

Age	% Becoming Disabled During the Year	% Terminating During the Year
20	0.03%	12.4%
30	0.04%	10.5%
40	0.07%	5.7%
50	0.18%	1.5%

SCHEDULE OF INVESTMENT RETURNS
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2019	4.06%
09/30/2018	9.54%
09/30/2017	10.94%
09/30/2016	7.83%
09/30/2015	-1.39%
09/30/2014	9.74%

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

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 City Council appointees,
- b) Two Members of the System elected by a majority of the other covered Police Officers, and a
- c) Fifth Member elected by the other four Members.

Each person employed by the City Police Department or City as a full-time Police Officer becomes a Member of the Plan as a condition of his employment. All Police Officers are therefore eligible for plan benefits as provided for in the plan document and by applicable law.

Plan Membership as of October 1, 2018:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	32
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	9
Active Plan Members	36
	77
	77

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 Punta Gorda Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Employee: 8.00% of total pay.

Premium Tax: 0.85% tax on premiums for casualty insurance policies.

City: Remaining amount necessary for payment of Normal (current year's) Cost and amortization of 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, 2018 through September 30, 2019.

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

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

Actuarial Assumptions:

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

Inflation	2.50%	
Salary Increases	Service based	
Discount Rate	7.00%	
Investment Rate of Return	7.00%	

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 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 valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

75% of active Member deaths are assumed to be service related.

The most recent actuarial experience study used to review the other significant assumptions was dated June 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 Real Rate of Return
Domestic Equity	45.00%	7.50%
International Equity	15.00%	8.50%
Broad Market Fixed Income	27.50%	2.50%
Global Fixed Income	5.00%	3.50%
Real Estate	7.50%	4.50%
Total	100.00%	

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)
Balances as of September 30, 2018	\$ 19,180,537	\$ 17,921,812	\$ 1,258,725
Changes for a Year:			
Service Cost	709,884	-	709,884
Interest	1,501,423	-	1,501,423
Share Plan Allocation	630		630
Differences between Expected and Actual Experience	(230,763)	-	(230,763)
Changes of assumptions	990,613	-	990,613
Changes of benefit terms	-	-	-
Contributions - Employer	-	432,825	(432,825)
Contributions - State	-	201,260	(201,260)
Contributions - Employee	-	198,663	(198,663)
Net Investment Income	-	727,996	(727,996)
Benefit Payments, including Refunds of Employee Contributions	(1,034,449)	(1,034,449)	-
Administrative Expense	-	(75,400)	75,400
Net Changes	1,937,338	450,895	1,486,443
Balances as of September 30, 2019	\$ 21,117,875	\$ 18,372,707	\$ 2,745,168

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	\$ 5,274,578	\$ 2,745,168	\$ 650,045

Pension Plan Fiduciary Net Position.

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

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

For the year ended September 30, 2019, the Sponsor will recognize a Pension Expense of \$1,064,051.

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	12,863	318,148
Changes of assumptions	742,959	-
Net difference between Projected and Actual Earnings on Pension Plan investments	133,093	-
Total	888,915	\$ 318,148

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		\$	23,191
2021		\$	160,076
2022		\$	257,459
2023		\$	130,041
2024		\$	-
Thereafter		\$	-

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

Measurement Date ²	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	709,884	593,416	636,723
Interest	1,501,423	1,448,738	1,360,108
Change in Excess State Money	-	-	(134)
Share Plan Allocation	630	2,156	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(230,763)	(435,224)	51,450
Changes of assumptions	990,613	-	-
Contributions - Buy Back	-	-	34,736
Benefit Payments, including Refunds of Employee Contributions	(1,034,449)	(1,057,059)	(735,142)
Net Change in Total Pension Liability	1,937,338	552,027	1,347,741
Total Pension Liability - Beginning	19,180,537	18,628,510	17,280,769
Total Pension Liability - Ending (a)	<u>\$ 21,117,875</u>	<u>\$ 19,180,537</u>	<u>\$ 18,628,510</u>
Plan Fiduciary Net Position			
Contributions - Employer	432,825	449,219	356,145
Contributions - State	201,260	204,311	194,170
Contributions - Employee	198,663	177,160	185,399
Contributions - Buy Back	-	-	34,736
Net Investment Income	727,996	1,589,295	1,646,451
Benefit Payments, including Refunds of Employee Contributions	(1,034,449)	(1,057,059)	(735,142)
Administrative Expense	(75,400)	(52,484)	(28,996)
Net Change in Plan Fiduciary Net Position	450,895	1,310,442	1,652,763
Plan Fiduciary Net Position - Beginning	17,921,812	16,611,370	14,958,607
Plan Fiduciary Net Position - Ending (b)	<u>\$ 18,372,707</u>	<u>\$ 17,921,812</u>	<u>\$ 16,611,370</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,745,168</u>	<u>\$ 1,258,725</u>	<u>\$ 2,017,140</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	87.00%	93.44%	89.17%
Covered Payroll ¹	\$ 2,483,295	\$ 2,214,507	\$ 2,317,484
Net Pension Liability as a percentage of Covered Payroll	110.55%	56.84%	87.04%

Notes to Schedule:

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

² Effective for the City's fiscal year ending 09/30/2017, the GASB 68 measurement date of the Pension Expense has been approved and changed from 09/30/2016 to 09/30/2017.

Changes of Assumptions:

For measurement date 09/30/2019, amounts reported as changes of assumptions resulted from an Experience Study dated June 19, 2019, the Board approved the following changes to the assumptions and methods:

- 1.) Reduce Investment Return assumption from 7.75% to 7.00%.
- 2.) Amend assumed individual salary increases from a flat 6.0% per year to a service based table.
- 3.) Amend assumed rates of Retirement to be 100% at 25 years, otherwise 50% at first eligibility, 20% for next 4 years of eligibility and 100% at 5 years after first eligibility.
- 4.) Increase all expected termination rates by 25%.

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

Measurement Date ²	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	555,746	570,363	526,910
Interest	1,263,445	1,286,569	1,210,004
Change in Excess State Money	-	-	-
Share Plan Allocation	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(141,785)	(802,974)	-
Changes of assumptions	377,986	164,476	-
Contributions - Buy Back	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(1,043,059)	(923,770)	(722,843)
Net Change in Total Pension Liability	1,012,333	294,664	1,014,071
Total Pension Liability - Beginning	16,268,436	15,973,772	14,959,701
Total Pension Liability - Ending (a)	<u>\$ 17,280,769</u>	<u>\$ 16,268,436</u>	<u>\$ 15,973,772</u>
Plan Fiduciary Net Position			
Contributions - Employer	409,363	513,912	548,795
Contributions - State	189,149	174,722	173,165
Contributions - Employee	175,660	159,694	147,103
Contributions - Buy Back	-	-	-
Net Investment Income	1,108,041	(205,046)	1,265,663
Benefit Payments, including Refunds of Employee Contributions	(1,043,059)	(923,770)	(722,843)
Administrative Expense	(21,570)	(23,002)	(14,496)
Net Change in Plan Fiduciary Net Position	817,584	(303,490)	1,397,387
Plan Fiduciary Net Position - Beginning	14,141,023	14,444,513	13,047,126
Plan Fiduciary Net Position - Ending (b)	<u>\$ 14,958,607</u>	<u>\$ 14,141,023</u>	<u>\$ 14,444,513</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,322,162</u>	<u>\$ 2,127,413</u>	<u>\$ 1,529,259</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.56%	86.92%	90.43%
Covered Payroll ¹	\$ 2,195,754	\$ 2,171,581	\$ 1,838,786
Net Pension Liability as a percentage of Covered Payroll	105.76%	97.97%	83.17%

Notes to Schedule:

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

² Effective for the City's fiscal year ending 09/30/2017, the GASB 68 measurement date of the Pension Expense has been approved and changed from 09/30/2016 to 09/30/2017.

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.

For measurement date 09/30/2015 the investment rate of return has been lowered from 8.00% to 7.75% per year, net of investment related expenses and the salary increase assumption has been lowered from 7.00% to 6.00%.

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	\$ 598,561	\$ 633,455	\$ (34,894)	\$ 2,483,295	25.51%
09/30/2018	\$ 638,368	\$ 651,374	\$ (13,006)	\$ 2,214,507	29.41%
09/30/2017	\$ 531,593	\$ 550,315	\$ (18,722)	\$ 2,317,484	23.75%
09/30/2016	\$ 576,560	\$ 598,512	\$ (21,952)	\$ 2,195,754	27.26%
09/30/2015	\$ 688,345	\$ 688,634	\$ (289)	\$ 2,171,581	31.71%
09/30/2014	\$ 704,255	\$ 721,960	\$ (17,705)	\$ 1,838,786	39.26%

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

Notes to Schedule

Valuation Date: 10/01/2017

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 Lives (Inactive):

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

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

Healthy Lives (Active):

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.

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 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. We feel this assumption sufficiently accommodates future mortality improvements.

75% of active deaths are assumed to occur in the line of duty.

Termination Rates:

See Table on following page; this assumption was adopted as a result of the July 22, 2010 experience study.

Disability Rates:

See Table on following page. It is assumed that 75% of disablements and active Member deaths are service related.

Retirement Age:

Earlier of age 46 and the completion of 21 years of service, or age 56. Also, any member who has reached Normal Retirement is assumed to continue employment for one additional year. This assumption was adopted as a result of the July 22, 2010 experience study.

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Early Retirement: Commencing upon eligibility for Early Retirement, Members are assumed to retire with an immediate subsidized benefit at the rate of 2% per year.

Interest Rate: 7.75% per year, compounded annually, net of investment related expenses. We feel this is reasonable based on asset allocation and long term expectations.

Salary Increases: 6.00% per year up to the assumed retirement age; see Table below. Final salary in year of retirement is increased individually, based on data provided by the City, to account for additional non-regular compensation.

Payroll Growth: 0.86% per year.

Funding Method: Frozen Entry Age Actuarial Cost Method.

Asset Valuation Method: Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

Termination and Disability Rate Table:

Age	% Becoming Disabled During the Year	% Terminating During the Year
20	0.03%	12.4%
30	0.04%	10.5%
40	0.07%	5.7%
50	0.18%	1.5%

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

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

COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2019

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 1,258,725	\$ 877,267	\$ 391,557	\$ -
Total Pension Liability Factors:				
Service Cost	709,884	-	-	709,884
Interest	1,501,423	-	-	1,501,423
Share Plan Allocation	630	-	-	630
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(230,763)	230,763	-	-
Current year amortization of experience difference	-	(238,211)	(12,863)	(225,348)
Change in assumptions about future economic or demographic factors or other inputs	990,613	-	990,613	-
Current year amortization of change in assumptions	-	-	(342,151)	342,151
Benefit Payments, including Refunds of Employee Contributions	(1,034,449)	-	-	-
Net change	<u>1,937,338</u>	<u>(7,448)</u>	<u>635,599</u>	<u>2,328,740</u>
Plan Fiduciary Net Position:				
Contributions - Employer	432,825	-	-	-
Contributions - State	201,260	-	-	-
Contributions - Employee	198,663	-	-	(198,663)
Projected Net Investment Income	1,378,203	-	-	(1,378,203)
Difference between projected and actual earnings on Pension Plan investments	(650,207)	-	650,207	-
Current year amortization	-	(164,600)	(401,377)	236,777
Benefit Payments, including Refunds of Employee Contributions	(1,034,449)	-	-	-
Administrative Expenses	(75,400)	-	-	75,400
Net change	<u>450,895</u>	<u>(164,600)</u>	<u>248,830</u>	<u>(1,264,689)</u>
Ending Balance	<u>\$ 2,745,168</u>	<u>\$ 705,219</u>	<u>\$ 1,275,986</u>	<u>\$ 1,064,051</u>

AMORTIZATION SCHEDULE - INVESTMENTS

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

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 650,207	5	\$ 130,043	\$ 130,041	\$ 130,041	\$ 130,041	\$ 130,041	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (312,719)	5	\$ (62,544)	\$ (62,544)	\$ (62,544)	\$ (62,544)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (486,914)	5	\$ (97,383)	\$ (97,383)	\$ (97,383)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (23,367)	5	\$ (4,673)	\$ (4,673)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 1,356,669	5	\$ 271,334	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 236,777	\$ (34,559)	\$ (29,886)	\$ 67,497	\$ 130,041	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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
2019	\$ 990,613	4	\$ 247,654	\$ 247,653	\$ 247,653	\$ 247,653	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 377,986	4	\$ 94,497	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 342,151	\$ 247,653	\$ 247,653	\$ 247,653	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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	\$ (230,763)	4	\$ (57,690)	\$ (57,691)	\$ (57,691)	\$ (57,691)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (435,224)	3	\$ (145,075)	\$ (145,075)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 51,450	4	\$ 12,863	\$ 12,863	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (141,785)	4	\$ (35,446)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (225,348)	\$ (189,903)	\$ (57,691)	\$ (57,691)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -