

CITY OF SEBASTIAN  
POLICE OFFICERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2020

CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2022

GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2020



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

December 10, 2020

Mr. Ken Killgore, Administrative Service Director  
City of Sebastian

Re: City of Sebastian Police Officers' Retirement System

Dear Ken Killgore:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Sebastian 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.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. 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 Sebastian, 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, 2019. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2020 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.

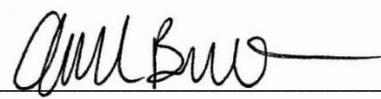
To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Sebastian, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police Officers' Retirement System. 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:   
\_\_\_\_\_  
Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #20-7778

By:   
\_\_\_\_\_  
Amanda M. Brown, ASA, EA, MAAA  
Enrolled Actuary #20-8780

Enclosures

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Sebastian Police Officers' Retirement System, performed as of October 1, 2020, 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, 2022.

The contribution requirements, compared with those set forth in the October 1, 2019 actuarial valuation report, are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2020 <u>9/30/2022</u>	10/1/2019 <u>9/30/2021</u>
Minimum Required Contribution % of Projected Annual Payroll	40.8%	38.3%
Member Contributions (Est.) % of Projected Annual Payroll	8.0%	8.0%
City And State Required Contribution % of Projected Annual Payroll	32.8%	30.3%
State Contribution (Est.) <sup>1</sup> % of Projected Annual Payroll	\$208,645 8.1%	\$208,645 8.1%
City Required Contribution <sup>2</sup> % of Projected Annual Payroll	24.7%	22.2%

<sup>1</sup> Represents the amount received in calendar 2020. As per a Mutual Consent Agreement between the Membership and the City, all State Monies received each year will be available to offset the City's required contribution.

<sup>2</sup> The required contribution from the combination of City and State sources for the year ending September 30, 2022, is 32.8% of the actual payroll realized in that year. As a budgeting tool, the City may contribute 24.7% of each Member's Salary and then make a one-time adjustment to account for the actual State Monies received.

The Minimum Required Contribution reflects an increase compared to the results determined in the October 1, 2019 actuarial valuation report. The increase is largely attributable to unfavorable plan experience on the basis of the plan's actuarial assumptions and was offset in part by a change in assumptions. Sources of actuarial loss included more retirements than expected, an investment return of 6.09% (Actuarial Asset Basis) which fell short of the 7.20% assumption, and less turnover than expected. These losses were offset in part by a gain associated with an average salary increase of 2.64% which fell short of the 5.15% assumption.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

There have been no changes in benefits since the prior valuation.

### Actuarial Assumption/Method Changes

As mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate risk and collar adjustments made based on plan demographics.

Additionally, for compliance with Part VII of Chapter 112, Florida Statutes, the payroll growth assumption was lowered from 2.36% to 1.51% in conjunction with this valuation of the Plan.

## CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2019	23.2%
(2) Summary of Contribution Impact by component:	
Change in State Contribution Percentage	-1.0%
Change in Normal Cost Rate	0.6%
Change in Administrative Expense Percentage	0.0%
Payroll Change Effect on UAAL Amortization	1.7%
Investment Return (Actuarial Asset Basis)	0.7%
Salary Increases	-0.6%
Active Decrements	1.5%
Inactive Mortality	0.3%
Assumption Change	-1.0%
Other	<u>-0.7%</u>
Total Change in Contribution	1.5%
(3) Contribution Determined as of October 1, 2020	24.7%

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2020</u>	Old Assump <u>10/1/2020</u>	<u>10/1/2019</u>
<b>A. Participant Data</b>			
Actives	40	40	41
Service Retirees	13	13	12
DROP Retirees	1	1	0
Beneficiaries	0	0	1
Disability Retirees	4	4	4
Terminated Vested	<u>10</u>	<u>10</u>	<u>11</u>
Total	68	68	69
Total Annual Payroll	\$2,774,482	\$2,774,482	\$2,936,351
Payroll Under Assumed Ret. Age	2,562,563	2,562,563	2,809,537
Annual Rate of Payments to:			
Service Retirees	676,279	676,279	544,392
DROP Retirees	126,579	126,579	0
Beneficiaries	0	0	7,211
Disability Retirees	78,179	78,179	78,179
Terminated Vested	157,675	157,675	157,675
<b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	17,732,894	17,732,894	16,337,610
Market Value (MVA) <sup>1</sup>	17,177,800	17,177,800	15,814,119
<b>C. Liabilities</b>			
Present Value of Benefits			
Actives			
Retirement Benefits	13,016,649	13,247,750	15,178,182
Disability Benefits	991,299	945,868	942,731
Death Benefits	55,851	76,365	76,864
Vested Benefits	268,173	270,109	245,304
Refund of Contributions	103,946	103,818	104,822
Service Retirees	7,483,725	7,735,974	5,998,340
DROP Retirees <sup>1</sup>	1,712,454	1,754,933	0
Beneficiaries	0	0	6,986
Disability Retirees	773,317	744,738	754,929
Terminated Vested	1,612,554	1,636,676	1,533,742
Share Plan Balances <sup>1</sup>	<u>0</u>	<u>0</u>	<u>0</u>
Total	26,017,968	26,516,231	24,841,900

C. Liabilities - (Continued)	New Assump <u>10/1/2020</u>	Old Assump <u>10/1/2020</u>	<u>10/1/2019</u>
Present Value of Future Salaries	21,788,786	21,764,667	21,586,842
Present Value of Future Member Contributions	1,743,103	1,741,173	1,726,947
Normal Cost (Retirement)	418,336	424,904	454,919
Normal Cost (Disability)	76,822	73,453	79,351
Normal Cost (Death)	2,723	3,713	4,033
Normal Cost (Vesting)	20,920	21,067	18,827
Normal Cost (Refunds)	<u>19,255</u>	<u>19,248</u>	<u>19,488</u>
Total Normal Cost	538,056	542,385	576,618
Present Value of Future Normal Costs	4,323,739	4,356,514	4,322,676
Accrued Liability (Retirement)	9,515,380	9,694,067	11,646,283
Accrued Liability (Disability)	413,096	395,955	392,674
Accrued Liability (Death)	33,784	46,421	47,254
Accrued Liability (Vesting)	138,962	140,005	125,386
Accrued Liability (Refunds)	10,957	10,948	13,630
Accrued Liability (Inactives) <sup>1</sup>	11,582,050	11,872,321	8,293,997
Share Plan Balances <sup>1</sup>	<u>0</u>	<u>0</u>	<u>0</u>
Total Actuarial Accrued Liability (EAN AL)	21,694,229	22,159,717	20,519,224
Unfunded Actuarial Accrued Liability (UAAL)	3,961,335	4,426,823	4,181,614
Funded Ratio (AVA / EAN AL)	81.7%	80.0%	79.6%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2020</u>	Old Assump <u>10/1/2020</u>	<u>10/1/2019</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	11,582,050	11,872,321	8,293,997
Actives	5,109,473	5,207,680	7,096,540
Member Contributions	<u>1,557,376</u>	<u>1,557,376</u>	<u>1,610,479</u>
Total	18,248,899	18,637,377	17,001,016
Non-vested Accrued Benefits	<u>790,615</u>	<u>803,776</u>	<u>770,397</u>
Total Present Value			
Accrued Benefits (PVAB)	19,039,514	19,441,153	17,771,413
Funded Ratio (MVA / PVAB)	90.2%	88.4%	89.0%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	(401,639)	0	
Plan Experience	0	1,099,820	
Benefits Paid	0	(684,963)	
Interest	0	1,254,883	
Other	<u>0</u>	<u>0</u>	
Total	(401,639)	1,669,740	

	New Assump	Old Assump	
Valuation Date	10/1/2020	10/1/2020	10/1/2019
Applicable to Fiscal Year Ending	<u>9/30/2022</u>	<u>9/30/2022</u>	<u>9/30/2021</u>

#### E. Pension Cost

Normal Cost (with interest)			
% of Total Annual Payroll <sup>2</sup>	21.8	21.9	21.3
Administrative Expenses (with interest)			
% of Total Annual Payroll <sup>2</sup>	3.0	3.0	3.0
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 26 years (as of 10/1/2020, with interest)			
% of Total Annual Payroll <sup>2</sup>	16.0	16.9	14.0
Minimum Required Contribution			
% of Total Annual Payroll <sup>2</sup>	40.8	41.8	38.3
Expected Member Contributions			
% of Total Annual Payroll <sup>2</sup>	8.0	8.0	8.0
Expected City and State Contribution			
% of Total Annual Payroll <sup>2</sup>	32.8	33.8	30.3

#### F. Past Contributions

Plan Years Ending:	<u>9/30/2020</u>
Total Required Contribution	1,100,769
City and State Requirement	871,442
Actual Contributions Made:	
Members (excluding buyback)	229,327
City	703,814
State	208,645
Total	<u>1,141,786</u>

G. Net Actuarial (Gain)/Loss 420,974

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2020 and 9/30/2019.

<sup>2</sup> Contributions developed as of 10/1/2020 are expressed as a percentage of total annual payroll at 10/1/2020 of \$2,562,563.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2020	3,961,335
2021	3,822,366
2022	3,666,987
2028	2,421,684
2034	916,455
2040	310,321
2046	0

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2020	2.64%	5.15%
Year Ended	9/30/2019	6.84%	7.13%
Year Ended	9/30/2018	3.09%	6.97%
Year Ended	9/30/2017	7.22%	6.19%
Year Ended	9/30/2016	7.49%	6.41%

(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	9/30/2020	6.04%	6.09%	7.20%
Year Ended	9/30/2019	1.79%	7.10%	7.30%
Year Ended	9/30/2018	7.35%	6.89%	7.30%
Year Ended	9/30/2017	10.90%	6.72%	7.45%
Year Ended	9/30/2016	9.39%	5.66%	7.60%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2020	\$2,562,563
	10/1/2010	2,205,042
(b) Total Increase		16.21%
(c) Number of Years		10.00
(d) Average Annual Rate		1.51%

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.



Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #20-7778

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

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

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

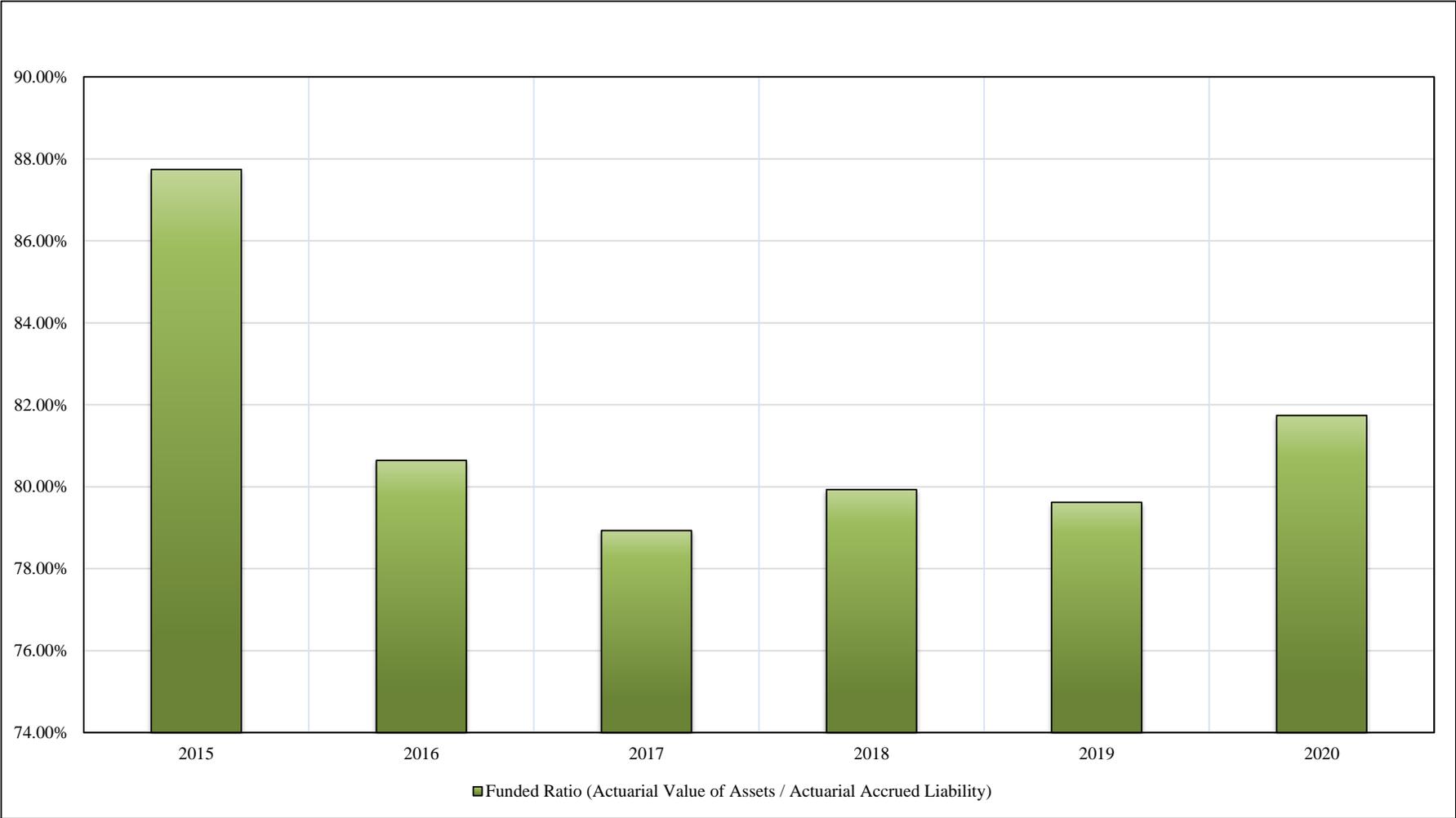
(1) Unfunded Actuarial Accrued Liability as of October 1, 2019	\$4,181,614
(2) Sponsor Normal Cost developed as of October 1, 2019	351,855
(3) Expected administrative expenses for the year ended September 30, 2020	82,282
(4) Expected interest on (1), (2) and (3)	329,372
(5) Sponsor contributions to the System during the year ended September 30, 2020	912,459
(6) Expected interest on (5)	26,815
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2020 (1)+(2)+(3)+(4)-(5)-(6)	4,005,849
(8) Change to UAAL due to Assumption Change	(465,488)
(9) Change to UAAL due to Actuarial (Gain)/Loss	420,974
(10) Unfunded Actuarial Accrued Liability as of October 1, 2020	3,961,335

Type of Base	Date Established	Years Remaining	10/1/2020 Amount	Amortization Amount
Method & Benefit	10/1/2002	12	460,059	50,844
Assump Change	10/1/2010	20	144,078	11,516
Benefit Change	10/1/2010	20	7,298	583
Assump Change	10/1/2013	13	(26,693)	(2,790)
Benefit Change	10/1/2014	24	(3,931)	(286)
Assump Change	10/1/2015	15	204,836	19,459
Method Change	10/1/2015	15	695,271	66,050
Assump Change	10/1/2016	16	625,410	57,023
Benefit Change	10/1/2016	26	627,392	43,944
Actuarial Loss	10/1/2016	6	144,396	27,462
Actuarial Loss	10/1/2017	7	215,535	36,049
Assump Change	10/1/2017	17	367,096	32,242
Actuarial Loss	10/1/2018	8	71,852	10,786
Actuarial Loss	10/1/2019	14	295,036	29,327
Asmp/Mthd Change	10/1/2019	14	178,214	17,714
Actuarial Loss	10/1/2020	15	420,974	39,992
Assump Change	10/1/2020	15	(465,488)	(44,221)
			3,961,335	395,694

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2019	\$4,181,614
(2) Expected UAAL as of October 1, 2020	4,005,849
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	183,856
Salary Increases	(151,666)
Active Decrements	423,800
Inactive Mortality	80,061
Other	<u>(115,077)</u>
Increase in UAAL due to (Gain)/Loss	420,974
Assumption Changes	<u>(465,488)</u>
(4) Actual UAAL as of October 1, 2020	\$3,961,335

# HISTORY OF FUNDING PROGRESS



## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

**Female:** PubS.H-2010 (Below Median) for Employees, set forward one year. Prior year assumption: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

**Male:** PubS.H-2010 (Below Median) for Employees, set forward one year. Prior year assumption: RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB.

#### *Healthy Retiree Lives:*

**Female:** PubS.H-2010 for Healthy Retirees, set forward one year. Prior year assumption: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

**Male:** PubS.H-2010 (Below Median) for Healthy Retirees, set forward one year. Prior year assumption: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

#### *Beneficiary Lives:*

**Female:** PubG.H-2010 (Below Median) for Healthy Retirees. Prior year assumption: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

**Male:** PubG.H-2010 (Below Median) for Healthy Retirees, set back one year. Prior year assumption: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

#### *Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

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

Prior year assumption (Male): 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

All rates are projected generationally with Mortality Improvement Scale MP-2018.

The described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of 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, 2019 FRS valuation report for special risk employees, with appropriate risk and collar adjustments made based on plan demographics. This assumption sufficiently accommodates future mortality improvements.

Interest Rate

7.20% 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

<u>Credited Service</u>	<u>Assumption</u>
< 1 Year	16.0%
Years 1 - 3	6.5%
Years 4 - 13	5.8%
14 Years and Greater	3.8%

This assumption was approved in conjunction with an actuarial experience study dated September 13, 2019.

Payroll Growth

1.51% (prior year 2.36%) 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

\$75,233 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Final Salary Load

Final salary is increased with a load assumption as shown below based on credited service on 10/1/2014:

<u>Service on 10/1/2014</u>	<u>Load Assumption</u>
5 or more years	20.0%
More than 2, less than 5 years	10.0%
Less than 2 years	0.0%

Termination Rate

The assumed rates of termination are displayed below:

<u>Credited Service</u>	<u>Assumption</u>
0 – 2	15.0%
3 – 14	4.0%
15 +	0.0%

This assumption was approved in conjunction with an actuarial experience study dated September 13, 2019.

Retirement Rates

Members with less than 25 years of credited service are assumed to retire at the following rates:

<u>Age</u>	<u>Assumption</u>
50	30%
51 – 54	5%
55 - 56	50%
57	100%

Members with at least 25 years of credited service are assumed to retire immediately. This assumption was approved in conjunction with an actuarial experience study dated September 13, 2019.

Disability Rate

Age-based rates with increasing probability of disablement at higher ages. A sample of rates are shown below:

<u>Age</u>	<u>Assumption</u>
30	0.24%
40	0.42%
50	1.08%
60	5.40%

Additionally, it is assumed that 75% of disablements and active Member deaths are service-related. This assumption was approved in conjunction with an actuarial experience study dated September 13, 2019.

Funding Method

Entry Age Normal Actuarial Cost Method (level percent of pay). A half-year of interest load at the current assumption of 7.2% is used for determining the minimum required contribution.

Actuarial Asset Method

All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a four-year period.

Amortization Method

New UAAL amortization amounts are amortized over the following amortization periods:

Experience: 15 Years.

Assumption/Method Changes: 15 Years.

Benefit Changes: 15 Years.

## GLOSSARY

Actuarial Value of Assets is the asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

- (a) The normal cost accrual rate equals:
  - i. the present value of future benefits for the participant, determined as of the participant's entry age, divided by
  - ii. the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
- (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
- (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.
- (d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Market Value of Assets is the fair market value of plan assets as of the valuation date. This amount may be adjusted to produce an Actuarial Value of Assets for plan funding purposes.

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded. Under the Entry Age Normal cost method, it is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current plan participants.

Total Annual Payroll is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members.

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.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the Actuarial Value of Assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

## 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 over a period of time determined by the plan's amortization method. 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 450.0% on October 1, 2010 to 166.7% on October 1, 2020, 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 53.4%. 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 increased from 68.1% to 81.7% during the period October 1, 2010 to October 1, 2020.
- 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, decreased from 9.6% on October 1, 2010 to 2.3% on October 1, 2020. The current Net Cash Flow Ratio of 2.3% indicates that contributions are generally in excess of 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>10/1/2010</u>	<u>10/1/2015</u>	<u>10/1/2019</u>	<u>10/1/2020</u>
<u>Support Ratio</u>				
Total Actives	36	34	41	40
Total Inactives <sup>1</sup>	8	16	23	24
Actives / Inactives <sup>1</sup>	450.0%	212.5%	178.3%	166.7%
<u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	7,086,302	11,284,026	15,814,119	17,177,800
Total Annual Payroll	2,205,042	2,221,517	2,936,351	2,774,482
MVA / Total Annual Payroll	321.4%	507.9%	538.6%	619.1%
<u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	1,835,269	6,059,349	8,293,997	11,582,050
Total Accrued Liability (EAN)	10,401,892	13,652,245	20,519,224	21,694,229
Inactive AL / Total AL	17.6%	44.4%	40.4%	53.4%
<u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	7,086,302	11,978,701	16,337,610	17,732,894
Total Accrued Liability (EAN)	10,401,892	13,652,245	20,519,224	21,694,229
AVA / Total Accrued Liability (EAN)	68.1%	87.7%	79.6%	81.7%
<u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>2</sup>	678,698	81,412	370,301	388,833
Market Value of Assets (MVA)	7,086,302	11,284,026	15,814,119	17,177,800
Ratio	9.6%	0.7%	2.3%	2.3%

<sup>1</sup> Excludes terminated participants awaiting a refund of member contributions.

<sup>2</sup> 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>
1996	32,503.00	_____%
1997	36,089.00	11.0%
1998	39,753.00	10.2%
1999	46,790.00	17.7%
2000	112,773.00	141.0%
2001	68,646.00	-39.1%
2002	82,877.00	20.7%
2003	92,713.77	11.9%
2004	106,715.77	15.1%
2005	117,621.48	10.2%
2006	117,621.48	0.0%
2007	117,621.48	0.0%
2008	122,800.00	4.4%
2009	137,781.90	12.2%
2010	134,851.83	-2.1%
2011	133,477.13	-1.0%
2012	139,262.54	4.3%
2013	145,960.60	4.8%
2014	147,867.54	1.3%
2015	145,700.02	-1.5%
2016	169,027.15	16.0%
2017	168,628.24	-0.2%
2018	188,923.04	12.0%
2019	198,770.00	5.2%
2020	208,644.92	5.0%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2020

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	1,263,887.22	1,263,887.22
Cash	74.09	74.09
Total Cash and Equivalents	1,263,961.31	1,263,961.31
Receivables:		
Investment Income	24,159.48	24,159.48
Total Receivable	24,159.48	24,159.48
Investments:		
U. S. Bonds and Bills	63,307.41	75,893.08
Federal Agency Guaranteed Securities	1,313,730.48	1,401,245.05
Corporate Bonds	1,932,972.13	2,027,149.01
Municipal Obligations	205,731.96	221,168.06
Stocks	9,950,391.69	11,423,961.41
Mutual Funds:		
Equity	15,202.25	15,431.50
Pooled/Common/Commingled Funds:		
Real Estate	650,000.00	724,831.00
Total Investments	14,131,335.92	15,889,679.11
Total Assets	15,419,456.71	17,177,799.90
<u>LIABILITIES</u>		
Total Liabilities	0.00	0.00
NET POSITION RESTRICTED FOR PENSIONS	15,419,456.71	17,177,799.90

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2020  
Market Value Basis

ADDITIONS

Contributions:

Member	229,326.84
City	703,814.00
State	208,644.92

Total Contributions 1,141,785.76

Investment Income:

Net Realized Gain (Loss)	(38,457.80)
Unrealized Gain (Loss)	768,455.92
Net Increase in Fair Value of Investments	729,998.12
Interest & Dividends	365,149.90
Less Investment Expense <sup>1</sup>	(120,301.08)

Net Investment Income 974,846.94

Total Additions 2,116,632.70

DEDUCTIONS

Distributions to Members:

Benefit Payments	673,747.81
Lump Sum DROP Distributions	0.00
Refunds of Member Contributions	11,214.76

Total Distributions 684,962.57

Administrative Expense 67,989.50

Total Deductions 752,952.07

Net Increase in Net Position 1,363,680.63

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 15,814,119.27

End of the Year 17,177,799.90

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

ACTUARIAL ASSET VALUATION  
September 30, 2020

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a four year period. In the first year, 25% of the gain or loss is recognized. In the second year 50%, in the third year 75%, and in the fourth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/Loss	<u>Gains/(Losses) Not Yet Recognized</u>			
		Amounts Not Yet Recognized by Valuation Year			
		2020	2021	2022	2023
09/30/2017	435,954	0	0	0	0
09/30/2018	1,392	348	0	0	0
09/30/2019	(844,232)	(422,116)	(211,058)	0	0
09/30/2020	(177,768)	(133,326)	(88,884)	(44,442)	0
Total		(555,094)	(299,942)	(44,442)	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, 09/30/2019	15,814,119
Contributions Less Benefit Payments and Admin Expenses	388,834
Expected Investment Earnings*	1,152,615
Actual Net Investment Earnings	974,847
2020 Actuarial Investment Gain/(Loss)	<u>(177,768)</u>

\*Expected Investment Earnings =  $0.072 * (15,814,119 + 0.5 * 388,834)$

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2020	17,177,800
(2) Gains/(Losses) Not Yet Recognized	(555,094)
(3) Actuarial Value of Assets, 09/30/2020, (1) - (2)	<u>17,732,894</u>
(A) 09/30/2019 Actuarial Assets:	16,337,610
(I) Net Investment Income:	
1. Interest and Dividends	365,150
2. Realized Gain (Loss)	(38,458)
3. Unrealized Gain (Loss)	768,456
4. Change in Actuarial Value	31,603
5. Investment Expenses	(120,301)
Total	<u>1,006,450</u>
(B) 09/30/2020 Actuarial Assets:	17,732,894
Actuarial Asset Rate of Return = $2I/(A+B-I)$ :	6.09%
Market Value of Assets Rate of Return:	6.04%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(183,856)
10/01/2020 Limited Actuarial Assets:	17,732,894

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2020  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	229,326.84	
City	703,814.00	
State	208,644.92	
 Total Contributions		 1,141,785.76
Earnings from Investments:		
Interest & Dividends	365,149.90	
Net Realized Gain (Loss)	(38,457.80)	
Unrealized Gain (Loss)	768,455.92	
Change in Actuarial Value	31,603.00	
 Total Earnings and Investment Gains		 1,126,751.02

EXPENDITURES

Distributions to Members:		
Benefit Payments	673,747.81	
Lump Sum DROP Distributions	0.00	
Refunds of Member Contributions	11,214.76	
 Total Distributions		 684,962.57
Expenses:		
Investment related <sup>1</sup>	120,301.08	
Administrative	67,989.50	
 Total Expenses		 188,290.58
 Change in Net Assets for the Year		 1,395,283.63
 Net Assets Beginning of the Year		 16,337,610.27
 Net Assets End of the Year <sup>2</sup>		 17,732,893.90

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

<sup>2</sup>Net Assets may be limited for actuarial consideration.

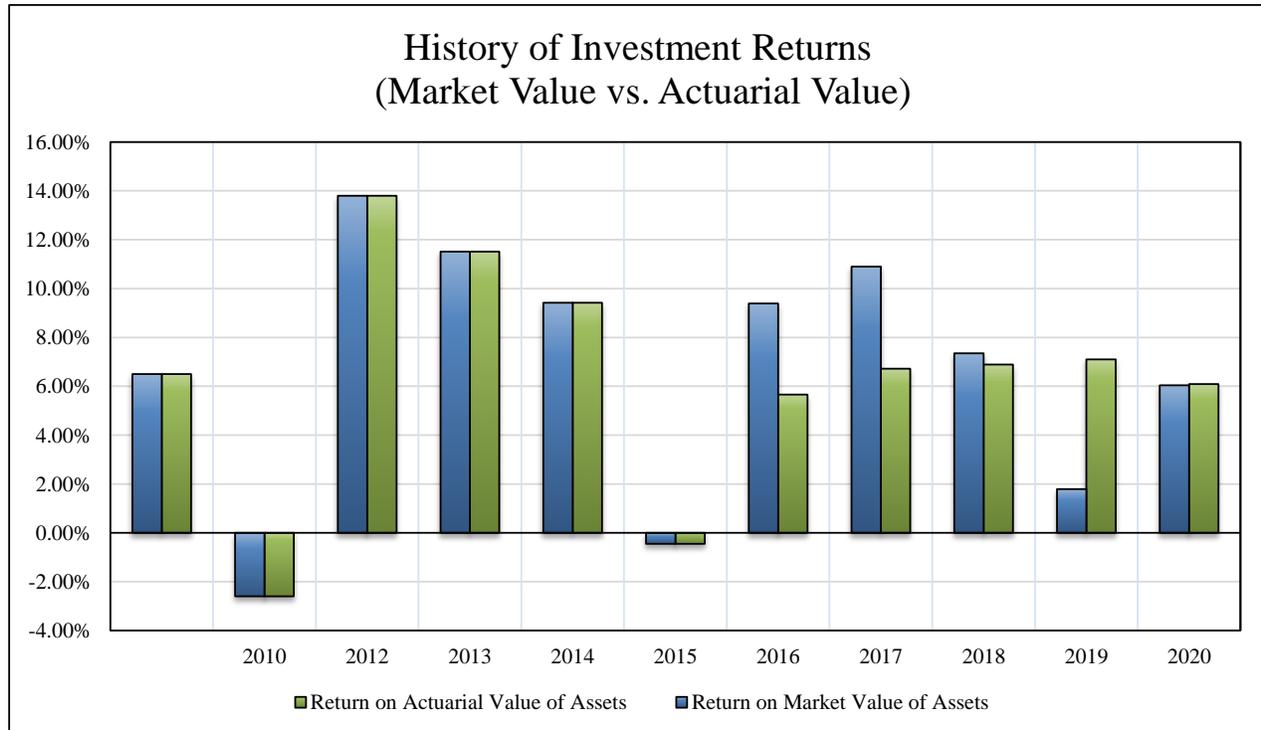
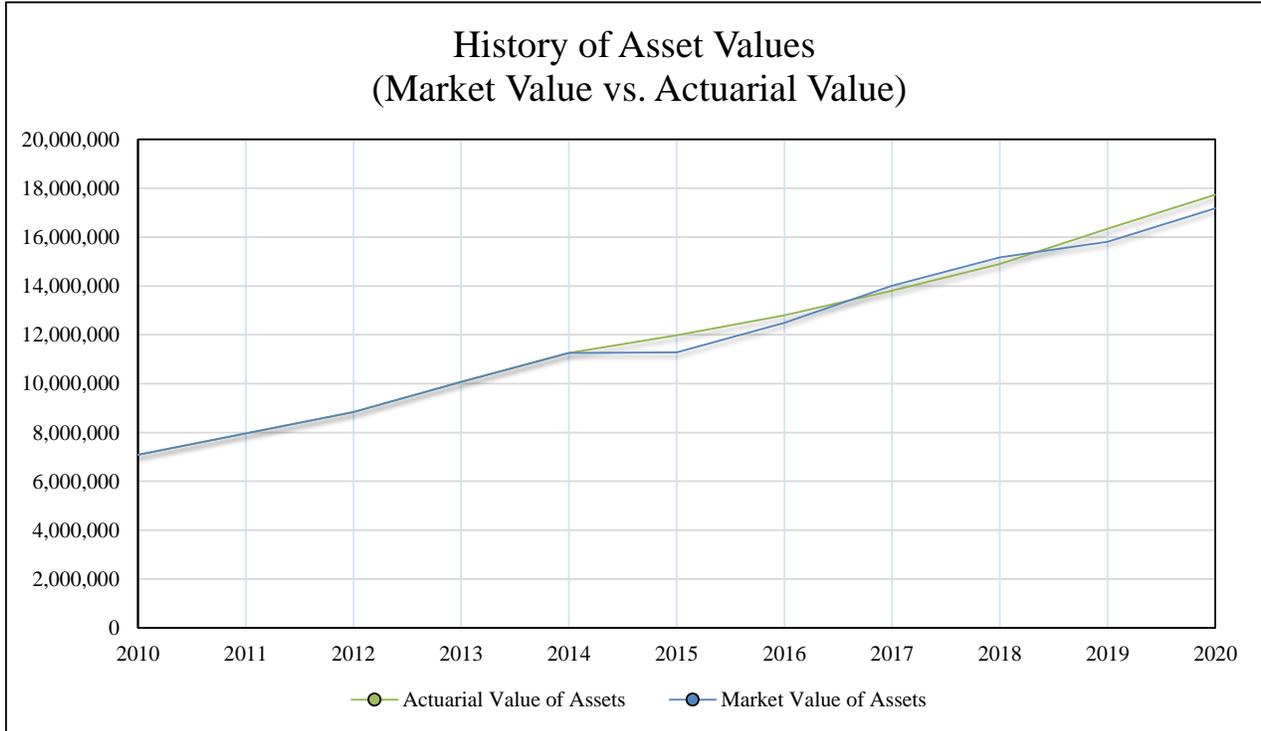
DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2019 to September 30, 2020

Beginning of the Year Balance	0.00
Plus Additions	116,030.97
Investment Return Earned	752.44
Less Distributions	0.00
End of the Year Balance	116,783.41

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2020

(1)	Total Required Contribution Rate	38.4%
(2)	Pensionable Payroll Derived from Member Contributions	\$2,866,585.50
(3)	Total Required Contribution (1) x (2)	1,100,768.83
(4)	Less Actual Member Contributions	(229,326.84)
(5)	Less Allowable State Contribution	<u>(208,644.92)</u>
(6)	Equals Required City Contribution for Fiscal 2020	662,797.07
(7)	Less 2019 Prepaid Contribution	0.00
(8)	Less Actual City Contributions	<u>(703,814.00)</u>
(9)	City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2020	(\$41,016.93)

# HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>	<u>10/1/2020</u>
<u>Actives</u>				
Number	37	39	41	40
Average Current Age	40.5	41.2	41.3	40.9
Average Age at Employment	29.8	31.1	30.8	30.9
Average Past Service	10.7	10.1	10.5	10.0
Average Annual Salary	\$71,343	\$69,415	\$71,618	\$69,362
<u>Service Retirees</u>				
Number	9	12	12	13
Average Current Age	62.9	61.0	62.0	62.2
Average Annual Benefit	\$51,364	\$45,366	\$45,366	\$52,021
<u>DROP Retirees</u>				
Number	0	0	0	1
Average Current Age	N/A	N/A	N/A	56.2
Average Annual Benefit	N/A	N/A	N/A	\$126,579
<u>Beneficiaries</u>				
Number	1	1	1	0
Average Current Age	67.7	68.7	69.7	N/A
Average Annual Benefit	\$7,211	\$7,211	\$7,211	N/A
<u>Disability Retirees</u>				
Number	2	3	4	4
Average Current Age	69.7	56.9	58.5	59.5
Average Annual Benefit	\$12,142	\$19,184	\$19,545	\$19,545
<u>Terminated Vested</u>				
Number	12	10	11	10
Average Current Age	48.8	49.9	50.9	51.9
Average Annual Benefit <sup>1</sup>	\$26,769	\$26,279	\$26,279	\$26,279

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

## AGE AND SERVICE DISTRIBUTION

### PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24	1		1									2
25 - 29	1	1		1								3
30 - 34	1			2	1	3	1					8
35 - 39			2				2	1				5
40 - 44			1			2	2	1	1			7
45 - 49						1	1	1	3			6
50 - 54			1	1			1	2		1		6
55 - 59			1						1			2
60 - 64			1									1
65+												0
<b>Total</b>	<b>3</b>	<b>1</b>	<b>7</b>	<b>4</b>	<b>1</b>	<b>6</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>40</b>

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2019	41
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution received	(2)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(1)
f. DROP	<u>(1)</u>
g. Continuing participants	37
h. New entrants	<u>3</u>
i. Total active life participants in valuation	40

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	12	0	1	4	6	5	28
Retired	1	0	0	0	0	0	1
DROP	0	1	0	0	0	0	1
Vested (Deferred Annuity)	0	0	0	0	0	0	0
Vested (Due Refund)	0	0	0	0	0	0	0
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	0	0	0	0
Refund of Contributions	0	0	0	0	0	(1)	(1)
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	(1)	0	0	0	(1)
Data Corrections	0	0	0	0	0	0	0
b. Number current valuation	13	1	0	4	6	4	28

SUMMARY OF CURRENT PLAN  
(Through Ordinance O-17-03)

<u>Eligibility</u>	Full-time employees who are classified as full-time sworn Police Officers participate in the System as a condition of employment.
<u>Credited Service</u>	Total years and fractional parts of years of employment with the City as a Police Officer.
<u>Salary</u>	Total cash compensation reportable on Form W-2, paid during the fiscal year, for services rendered to the City as a Police Officer. For Credited Service after July 1, 2011, annual overtime shall not exceed 300 hours. Additionally, payment for unused sick and annual leave time shall not be considered pensionable for hours accrued after July 1, 2011. Also, payment for overtime and unused sick and annual leave time at the time of termination shall not exceed the amounts in place on July 1, 2011.
<u>Average Final Compensation</u>	Average Earnings for the highest 5 years during the 10 years immediately preceding retirement or termination.
<u>Member Contributions</u>	8% of Salary.
<u>City and State Contributions</u>	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over a period not exceeding 30 years.
<u>Normal Retirement</u>	
Date	Earlier of: 1) age 55 and 10 years of Credited Service, or 2) age 52 and 25 years of Credited Service.
Benefit	
Members hired prior to 4/11/12	3.0% of Average Final Compensation for each year of Credited Service.
Members hired after 4/10/12	2.0% of Average Final Compensation for each year of Credited Service through September 30, 2016, plus 3.0% of Average Final Compensation for years of Credited Service after September 30, 2016.
Form of Benefit	Ten Year Certain and Life Annuity (options available).
<u>Early Retirement</u>	
Eligibility	Age 50 and 10 Years of Credited Service.
Benefit	Accrued benefit, reduced 3% per year prior to Normal Retirement.

Vesting

Schedule	100% after 10 years of Credited Service.
Benefit Amount	Member will receive the vested portion of his (her) accrued benefit payable at the otherwise Normal Retirement Date.

Deferred Retirement Option Plan

Eligibility	Satisfaction of Normal Retirement requirements.
Participation	Not to exceed 60 months.
Rate of Return	1.30% annual interest, compounded monthly
Form of Distribution	Lump sum (options available) at termination of employment.

Disability

Eligibility	
Service Incurred	Covered from Date of Employment.
Non-Service Incurred	10 years of Credited Service.
Benefit	
Service Incurred	Accrued benefit, but not less than 42% of Average Final Compensation.
Non-Service Incurred	Accrued benefit, but not less than 25% of Average Final Compensation.
Duration	Payable for life, with ten years certain, or until recovery (as determined by the Board).

Death Benefits

Pre-Retirement	
Non-vested	Refund of accumulated contributions.
Vested	Accrued benefit payable to Beneficiary for 10 years at otherwise Normal Retirement Date.
Post-Retirement	Benefits payable to beneficiary in accordance with option selected at retirement.

Cost-of-Living Adjustment

A 1% automatic cost-of-living adjustment (COLA), beginning on the first October 1 following age 58 for Members retiring after August 23, 2017 with at least 15 years of Credited Service. The COLA is applicable to all categories of retirement, including Normal, Early, Vesting, Disability, and pre-retirement death Beneficiaries.

Board of Trustees

- a. Two City Council appointees,
- b. Two Members of the System, elected by the Membership, and
- c. Fifth Trustee elected by other 4 and appointed by City Council.

Supplemental Benefit:  
Chapter 185 Share Accounts

Effective September 30, 2015, excess Premium tax monies received pursuant to Chapter 185, Florida Statutes will be allocated to individual Member share accounts based on years of Credited Service.

Excess Monies

The current Mutual Consent between the City and Membership allows the City to utilize all future Chapter 185 Premium tax monies to assist with Plan funding. Therefore, no excess monies are available for Share Plan allocation.

Investment Earnings

Plan earnings, net of investment-related expenses.

Expenses

Based on expenses related to administration of the Share Plan, debited against individual accounts on a pro-rata basis.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2020

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	1,263,887
Cash	74
Total Cash and Equivalents	1,263,961
Receivables:	
Investment Income	24,160
Total Receivable	24,160
Investments:	
U. S. Bonds and Bills	75,893
Federal Agency Guaranteed Securities	1,401,245
Corporate Bonds	2,027,149
Municipal Obligations	221,168
Stocks	11,423,961
Mutual Funds:	
Equity	15,432
Real Estate	724,831
Total Investments	15,889,679
Total Assets	17,177,800
Total Liabilities	0
NET POSITION RESTRICTED FOR PENSIONS	17,177,800

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2020  
Market Value Basis

ADDITIONS

## Contributions:

Member	229,327	
City	703,814	
State	208,645	
 Total Contributions		 1,141,786
 Investment Income:		
Net Increase in Fair Value of Investments	729,998	
Interest & Dividends	365,150	
Less Investment Expense <sup>1</sup>	(120,301)	
 Net Investment Income		 974,847
 Total Additions		 2,116,633

DEDUCTIONS

## Distributions to Members:

Benefit Payments	673,748	
Refunds of Member Contributions	11,215	
 Total Distributions		 684,963
 Administrative Expense		 67,989
 Total Deductions		 752,952
 Net Increase in Net Position		 1,363,681
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		15,814,119
 End of the Year		 17,177,800

<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, 2020)

*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 the Membership, and
- c. Fifth Trustee elected by other 4 and appointed by City Council.

*Plan Membership as of October 1, 2019:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	17
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	11
Active Plan Members	41
	69

*Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2019 Actuarial Valuation Report for the City of Sebastian Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions: 8% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over a period not exceeding 30 years.

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2020:

Asset Class	Target Allocation
Domestic Equity	52.50%
International Equity	12.50%
Fixed Income	25.00%
Real Estate	5.00%
MLPs	5.00%
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, 2020, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 6.04 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.

Participation: Not to exceed 60 months.

Rate of Return: 1.30% annual interest, compounded monthly.

The DROP balance as September 30, 2020 is \$116,783.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2020 were as follows:

Total Pension Liability	\$ 21,233,850
Plan Fiduciary Net Position	\$ (17,177,800)
Sponsor's Net Pension Liability	<u>\$ 4,056,050</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	<u>80.90%</u>

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2019 updated to September 30, 2020 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	Service based
Discount Rate	7.20%
Investment Rate of Return	7.20%

*Mortality Rate Healthy Active Lives:*

Female: PubS.H-2010 (Below Median) for Employees, set forward one year.

Male: PubS.H-2010 (Below Median) for Employees, set forward one year.

*Mortality Rate Healthy Retiree Lives:*

Female: PubS.H-2010 for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Below Median) for Healthy Retirees, set forward one year.

*Mortality Rate Beneficiary Lives:*

Female: PubG.H-2010 (Below Median) for Healthy Retirees.

Male: PubG.H-2010 (Below Median) for Healthy Retirees, set back one year.

*Mortality Rate Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018.

The described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of 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, 2019 FRS valuation report for special risk employees, with appropriate risk and collar adjustments made based on plan demographics. This assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated September 13, 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 2020 the inflation rate assumption of the investment advisor was 1.80%.

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.

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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, 2020 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return<sup>1</sup></u>
Domestic Equity	5.33%
International Equity	4.31%
Fixed Income	1.40%
Real Estate	4.80%
MLPs	4.70%

<sup>1</sup> Source: Morgan Stanley. Based on secular annualized return and volatility estimates are based on a 20-year-plus time horizon.

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

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.20 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	Current Discount Rate	1% Increase
	6.20%	7.20%	8.20%
Sponsor's Net Pension Liability	\$ 6,715,749	\$ 4,056,050	\$ 1,845,807

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 2 Fiscal Years

	<u>09/30/2020</u>	<u>09/30/2019</u>
Total Pension Liability		
Service Cost	600,789	609,880
Interest	1,451,768	1,371,857
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	408,904	(25,912)
Changes of assumptions	(447,786)	22,520
Contributions - Buy Back	-	52,749
Benefit Payments, including Refunds of Employee Contributions	(684,963)	(617,282)
Net Change in Total Pension Liability	<u>1,328,712</u>	<u>1,413,812</u>
Total Pension Liability - Beginning	<u>19,905,138</u>	<u>18,491,326</u>
Total Pension Liability - Ending (a)	<u>\$ 21,233,850</u>	<u>\$ 19,905,138</u>
Plan Fiduciary Net Position		
Contributions - Employer	703,814	595,045
Contributions - State	208,645	198,770
Contributions - Employee	229,327	223,495
Contributions - Buy Back	-	52,749
Net Investment Income	974,847	276,498
Benefit Payments, including Refunds of Employee Contributions	(684,963)	(617,282)
Administrative Expense	(67,989)	(82,476)
Net Change in Plan Fiduciary Net Position	<u>1,363,681</u>	<u>646,799</u>
Plan Fiduciary Net Position - Beginning	<u>15,814,119</u>	<u>15,167,320</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 17,177,800</u>	<u>\$ 15,814,119</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 4,056,050</u>	<u>\$ 4,091,019</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	80.90%	79.45%
Covered Payroll	\$ 2,866,586	\$ 2,793,692
Net Pension Liability as a percentage of Covered Payroll	141.49%	146.44%

**Notes to Schedule of Changes in Net Pension Liability and Related Ratios**

*Changes of assumptions:*

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate risk and collar adjustments made based on plan demographics.

For measurement date 09/30/2019, amounts reported as changes of assumptions resulted of an Experience Study dated September

- The investment return assumption was decreased from 7.30% to 7.20% per year compounded annually, net of investment related expenses.

- Based on a study of actual versus expected experience for the 10-year period ending September 30, 2018, the following changes to demographic assumptions were made:

- i. Updates to the future salary increase assumption
- ii. Updates to assumed rates of retirement
- iii. Updates to the assumed rates of disability
- iv. Updates to assumed rates of withdrawal

**SCHEDULE OF CONTRIBUTIONS**  
Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2020	\$ 871,442	\$ 912,459	\$ (41,017)	\$ 2,866,586	31.83%
09/30/2019	\$ 793,409	\$ 793,815	\$ (406)	\$ 2,793,692	28.41%

Notes to Schedule

Valuation Date: 10/01/2018

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 can be found in the October 1, 2018 Actuarial Valuation for the City of Sebastian Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

SCHEDULE OF INVESTMENT RETURNS  
Last 2 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2020	6.04%
09/30/2019	1.79%

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

*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 the Membership, and
- c. Fifth Trustee elected by other 4 and appointed by City Council.

Full-time employees who are classified as full-time sworn Police Officers participate in the System as a condition of employment.

*Plan Membership as of October 1, 2019:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	17
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	11
Active Plan Members	41
	69
	69

*Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2019 Actuarial Valuation Report for the City of Sebastian Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions: 8% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over a period not exceeding 30 years.

**Net Pension Liability**

The measurement date is September 30, 2020.

The measurement period for the pension expense was October 1, 2019 to September 30, 2020.

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

The Sponsor's Net Pension Liability was measured as of September 30, 2020.

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, 2019 updated to September 30, 2020 using the following actuarial assumptions:

Inflation		2.30%
Salary Increases	Service based	
Discount Rate		7.20%
Investment Rate of Return		7.20%

*Mortality Rate Healthy Active Lives:*

Female: PubS.H-2010 (Below Median) for Employees, set forward one year.

Male: PubS.H-2010 (Below Median) for Employees, set forward one year.

*Mortality Rate Healthy Retiree Lives:*

Female: PubS.H-2010 for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Below Median) for Healthy Retirees, set forward one year.

*Mortality Rate Beneficiary Lives:*

Female: PubG.H-2010 (Below Median) for Healthy Retirees.

Male: PubG.H-2010 (Below Median) for Healthy Retirees, set back one year.

*Mortality Rate Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018.

The described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of 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, 2019 FRS valuation report for special risk employees, with appropriate risk and collar adjustments made based on plan demographics. This assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated September 13, 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 2020 the inflation rate assumption of the investment advisor was 1.80%.

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, 2020 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	52.50%	5.33%
International Equity	12.50%	4.31%
Fixed Income	25.00%	1.40%
Real Estate	5.00%	4.80%
MLPs	5.00%	4.70%
Total	100.00%	

<sup>1</sup> Source: Morgan Stanley. Based on secular annualized return and volatility estimates are based on a 20-year-plus time horizon.

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

**Discount Rate:**

The Discount Rate used to measure the Total Pension Liability was 7.20 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, 2019	\$ 19,905,138	\$ 15,814,119	\$ 4,091,019
Changes for a Year:			
Service Cost	600,789	-	600,789
Interest	1,451,768	-	1,451,768
Differences between Expected and Actual Experience	408,904	-	408,904
Changes of assumptions	(447,786)	-	(447,786)
Changes of benefit terms	-	-	-
Contributions - Employer	-	703,814	(703,814)
Contributions - State	-	208,645	(208,645)
Contributions - Employee	-	229,327	(229,327)
Net Investment Income	-	974,847	(974,847)
Benefit Payments, including Refunds of Employee Contributions	(684,963)	(684,963)	-
Administrative Expense	-	(67,989)	67,989
Net Changes	1,328,712	1,363,681	(34,969)
Balances as of September 30, 2020	\$ 21,233,850	\$ 17,177,800	\$ 4,056,050

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.20%	7.20%	8.20%
Sponsor's Net Pension Liability	\$ 6,715,749	\$ 4,056,050	\$ 1,845,807

*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, 2020**

For the year ended September 30, 2020, the Sponsor will recognize a Pension Expense of \$997,632.

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	446,885	51,652
Changes of assumptions	353,382	373,155
Net difference between Projected and Actual Earnings on Pension Plan investments	561,007	-
<b>Total</b>	<b>\$ 1,361,274</b>	<b>\$ 424,807</b>

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	\$	299,985
2022	\$	389,666
2023	\$	224,788
2024	\$	28,508
2025	\$	(6,480)
Thereafter	\$	-

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 2 Fiscal Years

Measurement date <sup>1</sup>	09/30/2020	09/30/2019
Total Pension Liability		
Service Cost	600,789	609,880
Interest	1,451,768	1,371,857
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	408,904	(25,912)
Changes of assumptions	(447,786)	22,520
Contributions - Buy Back	-	52,749
Benefit Payments, including Refunds of Employee Contributions	(684,963)	(617,282)
Net Change in Total Pension Liability	1,328,712	1,413,812
Total Pension Liability - Beginning	19,905,138	18,491,326
Total Pension Liability - Ending (a)	<u>\$ 21,233,850</u>	<u>\$ 19,905,138</u>
Plan Fiduciary Net Position		
Contributions - Employer	703,814	595,045
Contributions - State	208,645	198,770
Contributions - Employee	229,327	223,495
Contributions - Buy Back	-	52,749
Net Investment Income	974,847	276,498
Benefit Payments, including Refunds of Employee Contributions	(684,963)	(617,282)
Administrative Expense	(67,989)	(82,476)
Net Change in Plan Fiduciary Net Position	1,363,681	646,799
Plan Fiduciary Net Position - Beginning	15,814,119	15,167,320
Plan Fiduciary Net Position - Ending (b)	<u>\$ 17,177,800</u>	<u>\$ 15,814,119</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 4,056,050</u>	<u>\$ 4,091,019</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	80.90%	79.45%
Covered Payroll	\$ 2,866,586	\$ 2,793,692
Net Pension Liability as a percentage of Covered Payroll	141.49%	146.44%

**Notes to Schedule of Changes in Net Pension Liability and Related Ratios**

<sup>1</sup> Effective for the City's fiscal year ending 09/30/2020, the GASB 68 measurement date of the Pension Expense has been approved and changed from 09/30/2019 to 09/30/2020.

*Changes of assumptions:*

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate risk and collar adjustments made based on plan demographics.

For measurement date 09/30/2019, amounts reported as changes of assumptions resulted of an Experience Study dated September 13, 2019, the Board approved the following changes:

- The investment return assumption was decreased from 7.30% to 7.20% per year compounded annually, net of investment related expenses.
- Based on a study of actual versus expected experience for the 10-year period ending September 30, 2018, the following changes to demographic assumptions were made:
  - i. Updates to the future salary increase assumption
  - ii. Updates to assumed rates of retirement
  - iii. Updates to the assumed rates of disability
  - iv. Updates to assumed rates of withdrawal

**SCHEDULE OF CONTRIBUTIONS**  
Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2020	\$ 871,442	\$ 912,459	\$ (41,017)	\$ 2,866,586	31.83%
09/30/2019	\$ 793,409	\$ 793,815	\$ (406)	\$ 2,793,692	28.41%

Notes to Schedule

Valuation Date: 10/01/2018

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 can be found in the October 1, 2018 Actuarial Valuation for the City of Sebastian Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

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, 2020**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 4,091,019	\$ 306,516	\$ 1,363,125	\$ -
Total Pension Liability Factors:				
Service Cost	600,789	-	-	600,789
Interest	1,451,768	-	-	1,451,768
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	408,904	-	408,904	-
Current year amortization of experience difference	-	(38,695)	(107,497)	68,802
Change in assumptions about future economic or demographic factors or other inputs	(447,786)	447,786	-	-
Current year amortization of change in assumptions	-	(74,631)	(188,881)	114,250
Benefit Payments, including Refunds of Employee Contributions	(684,963)	-	-	-
Net change	<u>1,328,712</u>	<u>334,460</u>	<u>112,526</u>	<u>2,235,609</u>
Plan Fiduciary Net Position:				
Contributions - Employer	703,814	-	-	-
Contributions - State	208,645	-	-	-
Contributions - Employee	229,327	-	-	(229,327)
Projected Net Investment Income	1,152,615	-	-	(1,152,615)
Difference between projected and actual earnings on Pension Plan investments	(177,768)	-	177,768	-
Current year amortization	-	(128,422)	(204,398)	75,976
Benefit Payments, including Refunds of Employee Contributions	(684,963)	-	-	-
Administrative Expenses	(67,989)	-	-	67,989
Net change	<u>1,363,681</u>	<u>(128,422)</u>	<u>(26,630)</u>	<u>(1,237,977)</u>
Ending Balance	<u><u>\$ 4,056,050</u></u>	<u><u>\$ 512,554</u></u>	<u><u>\$ 1,449,021</u></u>	<u><u>\$ 997,632</u></u>

AMORTIZATION SCHEDULE - INVESTMENTS

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

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2020	\$ 177,768	5	\$ 35,552	\$ 35,554	\$ 35,554	\$ 35,554	\$ 35,554	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 844,232	5	\$ 168,846	\$ 168,846	\$ 168,846	\$ 168,846	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (1,391)	5	\$ (278)	\$ (278)	\$ (278)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (435,953)	5	\$ (87,191)	\$ (87,191)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (204,764)	5	\$ (40,953)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 75,976	\$ 116,931	\$ 204,122	\$ 204,400	\$ 35,554	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2020	\$ (447,786)	6	\$ (74,631)	\$ (74,631)	\$ (74,631)	\$ (74,631)	\$ (74,631)	\$ (74,631)	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 22,520	6	\$ 3,753	\$ 3,753	\$ 3,753	\$ 3,753	\$ 3,753	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 382,825	6	\$ 63,804	\$ 63,804	\$ 63,804	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 626,069	7	\$ 89,438	\$ 89,438	\$ 89,438	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 223,200	7	\$ 31,886	\$ 31,886	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 114,250	\$ 114,250	\$ 82,364	\$ (70,878)	\$ (70,878)	\$ (74,631)	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2020	\$ 408,904	6	\$ 68,149	\$ 68,151	\$ 68,151	\$ 68,151	\$ 68,151	\$ 68,151	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ (25,912)	6	\$ (4,319)	\$ (4,319)	\$ (4,319)	\$ (4,319)	\$ (4,319)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 164,601	6	\$ 27,434	\$ 27,434	\$ 27,434	\$ 27,434	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 20,758	6	\$ 3,460	\$ 3,460	\$ 3,460	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 59,175	7	\$ 8,454	\$ 8,454	\$ 8,454	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (240,633)	7	\$ (34,376)	\$ (34,376)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 68,802	\$ 68,804	\$ 103,180	\$ 91,266	\$ 63,832	\$ 68,151	\$ -	\$ -	\$ -	\$ -	\$ -