

CITY OF TITUSVILLE  
GENERAL EMPLOYEES' PENSION PLAN

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

January 31, 2020

Board of Trustees  
City of Titusville  
General Employees' Pension Board

Re: City of Titusville General Employees' Pension Plan

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Titusville General Employees' Pension Plan. 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 Chapter 112, 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 Titusville, 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.

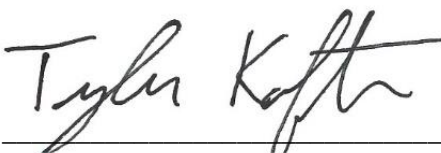
To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Titusville, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the General Employees' Pension Plan. 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 #17-7778

By:   
\_\_\_\_\_  
Tyler A. Koftan, EA, MAAA  
Enrolled Actuary #17-8685

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Enclosures

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Titusville General Employees' Pension Plan, 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<br>Applicable to Fiscal Year Ending | 10/1/2019<br><u>9/30/2021</u> | 10/1/2018<br><u>9/30/2020</u> |
|--|-------------------------------|-------------------------------|
| Minimum Required Contribution                      | \$2,029,042                   | \$2,630,881                   |
| Member Contributions (Est.)                        | 350,305                       | 335,002                       |
| City Required Contribution <sup>2</sup>            | \$1,678,737                   | \$2,295,879                   |

As you can see, the Minimum Required Contribution shows a decrease when compared to the results determined in the October 1, 2018 actuarial valuation report. The decrease is attributable to net favorable experience and the expiration of a charge component of the Unfunded Actuarial Accrued Liability.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. The primary source of actuarial gain was an investment return of 9.16% (Actuarial Asset Basis) which exceeded the 7.75% assumption. There were no significant sources of actuarial loss.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

Since the prior valuation, the plan was amended with respect to in-service distributions and to establish a “DROP II” program. These changes did not result in a change to the plan’s funding requirements.

### Actuarial Assumption/Method Changes

There have been no changes of actuarial assumptions or methods since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

|                                    | <u>10/1/2019</u> | <u>10/1/2018</u> |
|------------------------------------|------------------|------------------|
| A. Participant Data                |                  |                  |
| Actives                            | 293              | 289              |
| Service Retirees                   | 329              | 321              |
| DROP Retirees                      | 0                | 0                |
| Beneficiaries                      | 36               | 35               |
| Disability Retirees                | 2                | 3                |
| Terminated Vested                  | <u>146</u>       | <u>132</u>       |
| <br>Total                          | <br>806          | <br>780          |
| <br>Total Annual Payroll           | <br>\$13,367,477 | <br>\$13,050,112 |
| Payroll Under Assumed Ret. Age     | 12,845,902       | 12,315,226       |
| <br>Annual Rate of Payments to:    |                  |                  |
| Service Retirees                   | 4,325,824        | 4,055,261        |
| DROP Retirees                      | 0                | 0                |
| Beneficiaries                      | 219,109          | 215,628          |
| Disability Retirees                | 15,096           | 39,155           |
| Terminated Vested                  | 394,546          | 407,386          |
| <br>B. Assets                      |                  |                  |
| Actuarial Value (AVA) <sup>1</sup> | 62,315,479       | 58,660,023       |
| Market Value (MVA) <sup>1</sup>    | 61,671,199       | 61,691,922       |
| <br>C. Liabilities                 |                  |                  |
| Present Value of Benefits          |                  |                  |
| Actives                            |                  |                  |
| Retirement Benefits                | 22,648,467       | 23,191,942       |
| Disability Benefits                | 434,547          | 385,311          |
| Death Benefits                     | 146,471          | 137,954          |
| Vested Benefits                    | 602,236          | 626,649          |
| Refund of Contributions            | 253,924          | 233,086          |
| Service Retirees                   | 42,742,223       | 40,139,221       |
| DROP Retirees <sup>1</sup>         | 0                | 0                |
| Beneficiaries                      | 2,068,397        | 2,070,191        |
| Disability Retirees                | 107,423          | 265,628          |
| Terminated Vested                  | <u>2,847,611</u> | <u>2,797,675</u> |
| <br>Total                          | <br>71,851,299   | <br>69,847,657   |

| C. Liabilities - (Continued)                    | <u>10/1/2019</u>  | <u>10/1/2018</u>  |
|---|-------------------|-------------------|
| Present Value of Future Salaries                | 81,534,970        | 77,930,976        |
| Present Value of Future<br>Member Contributions | 2,038,374         | 1,948,274         |
| Normal Cost (Retirement)                        | 826,742           | 795,497           |
| Normal Cost (Disability)                        | 22,196            | 19,984            |
| Normal Cost (Death)                             | 7,782             | 7,579             |
| Normal Cost (Vesting)                           | 53,964            | (129,821)         |
| Normal Cost (Refunds)                           | <u>50,880</u>     | <u>233,086</u>    |
| Total Normal Cost                               | 961,564           | 926,325           |
| Present Value of Future<br>Normal Costs         | 5,464,961         | 5,151,175         |
| Accrued Liability (Retirement)                  | 17,826,709        | 18,664,300        |
| Accrued Liability (Disability)                  | 296,929           | 260,829           |
| Accrued Liability (Death)                       | 103,189           | 95,510            |
| Accrued Liability (Vesting)                     | 336,710           | 403,128           |
| Accrued Liability (Refunds)                     | 57,147            | 0                 |
| Accrued Liability (Inactives) <sup>1</sup>      | <u>47,765,654</u> | <u>45,272,715</u> |
| Total Actuarial Accrued Liability (EAN AL)      | 66,386,338        | 64,696,482        |
| Unfunded Actuarial Accrued<br>Liability (UAAL)  | 4,070,859         | 6,036,459         |
| Funded Ratio (AVA / EAN AL)                     | 93.9%             | 90.7%             |



D. Actuarial Present Value of

Accrued Benefits

10/1/2019

10/1/2018

Vested Accrued Benefits

Inactives <sup>1</sup>

47,765,654

45,272,715

Actives

10,894,518

12,715,107

Member Contributions

1,823,359

1,703,897

Total

60,483,531

59,691,719

Non-vested Accrued Benefits

1,812,674

1,522,799

Total Present Value

Accrued Benefits (PVAB)

62,296,205

61,214,518

Funded Ratio (MVA / PVAB)

99.0%

100.8%

Increase (Decrease) in Present Value of  
Accrued Benefits Attributable to:

Plan Amendments

0

Assumption Changes

0

Plan Experience

1,011,591

Benefits Paid

(4,499,667)

Interest

4,569,763

Other

0

Total

1,081,687

|                                  |                  |                  |
|----------------------------------|------------------|------------------|
| Valuation Date                   | 10/1/2019        | 10/1/2018        |
| Applicable to Fiscal Year Ending | <u>9/30/2021</u> | <u>9/30/2020</u> |

E. Pension Cost

|   |             |             |
|---|-------------|-------------|
| Normal Cost <sup>2</sup>  | \$1,048,866 | \$1,007,926 |
| Administrative Expenses <sup>2</sup>  | 112,334     | 96,843      |
| Payment Required to Amortize<br>Unfunded Actuarial Accrued<br>Liability over 26 years<br>(as of 10/1/2019) <sup>2</sup> | 867,842     | 1,526,112   |
| Minimum Required Contribution   | 2,029,042   | 2,630,881   |
| Expected Member Contributions <sup>2</sup>  | 350,305     | 335,002     |
| Expected City Contribution  | 1,678,737   | 2,295,879   |

F. Past Contributions

|                             |                  |
|-----------------------------|------------------|
| Plan Years Ending:          | <u>9/30/2019</u> |
| City Requirement            | 2,628,056        |
| Actual Contributions Made:  |                  |
| Members (excluding buyback) | 323,634          |
| City                        | <u>2,628,066</u> |
| Total                       | 2,951,700        |

|                              |           |
|------------------------------|-----------|
| G. Net Actuarial (Gain)/Loss | (462,347) |
|------------------------------|-----------|

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

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

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

| <u>Year</u> | <u>Projected Unfunded<br/>Actuarial Accrued Liability</u> |
|-------------|---|
| 2019        | 4,070,859   |
| 2020        | 3,529,081   |
| 2021        | 3,205,903   |
| 2027        | 1,485,733   |
| 2045        | 0   |

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

|                      | <u>Actual</u> | <u>Assumed</u> |
|----------------------|---------------|----------------|
| Year Ended 9/30/2019 | 4.52%         | 4.96%          |
| Year Ended 9/30/2018 | 5.96%         | 5.00%          |
| Year Ended 9/30/2017 | 5.32%         | 5.00%          |
| Year Ended 9/30/2016 | 10.13%        | 5.00%          |
| Year Ended 9/30/2015 | 4.86%         | 5.00%          |

(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 | 2.66%               | 9.16%                  | 7.75%          |
| Year Ended 9/30/2018 | 9.29%               | 8.44%                  | 8.00%          |
| Year Ended 9/30/2017 | 14.08%              | 9.34%                  | 8.00%          |
| Year Ended 9/30/2016 | 10.92%              | 9.53%                  | 8.00%          |
| Year Ended 9/30/2015 | -0.02%              | 11.72%                 | 8.00%          |

(iii) Average Annual Payroll Growth

|                         |           |              |
|-------------------------|-----------|--------------|
| (a) Payroll as of:      | 10/1/2019 | \$12,845,902 |
|                         | 10/1/2009 | 10,560,520   |
| (b) Total Increase      |           | 21.64%       |
| (c) Number of Years     |           | 10.00        |
| (d) Average Annual Rate |           | 1.98%        |

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 #17-7778

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, 2018                                     | \$6,036,459 |
| (2)  | Sponsor Normal Cost developed as of October 1, 2018  | 618,444     |
| (3)  | Expected administrative expenses for the year ended September 30, 2019                         | 89,003      |
| (4)  | Expected interest on (1), (2) and (3)  | 519,204     |
| (5)  | Sponsor contributions to the System during the year ended September 30, 2019                   | 2,628,066   |
| (6)  | Expected interest on (5)   | 101,838     |
| (7)  | Expected Unfunded Actuarial Accrued Liability as of September 30, 2019 (1)+(2)+(3)+(4)-(5)-(6) | 4,533,206   |
| (8)  | Change to UAAL due to Assumption Change  | 0           |
| (9)  | Change to UAAL due to Actuarial (Gain)/Loss  | (462,347)   |
| (10) | Unfunded Actuarial Accrued Liability as of October 1, 2019                                     | 4,070,859   |

| <u>Type of Base</u> | <u>Date Established</u> | <u>Years Remaining</u> | <u>10/1/2019 Amount</u> | <u>Amortization Amount</u> |
|---------------------|-------------------------|------------------------|-------------------------|----------------------------|
|                     | 10/1/1990               | 1                      | (51,198)                | (51,198)                   |
|                     | 10/1/1992               | 3                      | (54,790)                | (19,642)                   |
|                     | 10/1/1993               | 4                      | 715,873                 | 199,476                    |
|                     | 10/1/1995               | 6                      | 841,563                 | 167,670                    |
| Method Change       | 10/1/2004               | 15                     | 1,085,814               | 115,940                    |
| Prior Losses        | 10/1/2004               | 9                      | 868,412                 | 127,678                    |
| Actuarial Loss      | 10/1/2005               | 9                      | 975,393                 | 143,407                    |
| Actuarial Loss      | 10/1/2006               | 9                      | 59,609                  | 8,764                      |
| Actuarial Gain      | 10/1/2007               | 9                      | (648,559)               | (95,354)                   |
| Method Change       | 10/1/2008               | 9                      | 892,362                 | 131,200                    |
| Assump Change       | 10/1/2009               | 10                     | 2,140,524               | 292,727                    |
| Benefit Change      | 10/1/2009               | 20                     | 37,816                  | 3,508                      |
| Actuarial Loss      | 10/1/2010               | 1                      | 293,040                 | 293,040                    |
| Actuarial Loss      | 10/1/2011               | 2                      | 457,115                 | 237,084                    |
| Benefit Change      | 10/1/2011               | 22                     | (2,358,687)             | (210,370)                  |
| Actuarial Gain      | 10/1/2012               | 3                      | (150,605)               | (53,992)                   |
| Assump Change       | 10/1/2012               | 13                     | 527,687                 | 61,113                     |
| Actuarial Gain      | 10/1/2013               | 4                      | (316,457)               | (88,180)                   |
| Actuarial Gain      | 10/1/2014               | 5                      | (1,272,041)             | (293,730)                  |

| Type of<br><u>Base</u> | Date<br><u>Established</u> | Years<br><u>Remaining</u> | 10/1/2019<br><u>Amount</u> | Amortization<br><u>Amount</u> |
|------------------------|----------------------------|---------------------------|----------------------------|-------------------------------|
| Actuarial Gain         | 10/1/2015                  | 6                         | (955,817)                  | (190,434)                     |
| Benefit Change         | 10/1/2015                  | 26                        | (73,698)                   | (6,190)                       |
| Actuarial Gain         | 10/1/2016                  | 7                         | (226,982)                  | (40,116)                      |
| Assump Change          | 10/1/2016                  | 17                        | 1,362,476                  | 136,321                       |
| Actuarial Gain         | 10/1/2017                  | 8                         | (740,335)                  | (118,431)                     |
| Actuarial Loss         | 10/1/2018                  | 9                         | 34,611                     | 5,089                         |
| Assump Change          | 10/1/2018                  | 19                        | 1,090,080                  | 103,456                       |
| Actuarial Gain         | 10/1/2019                  | 10                        | <u>(462,347)</u>           | <u>(63,228)</u>               |
|                        |                            |                           | 4,070,859                  | 795,608                       |

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

|   |                |
|---|----------------|
| (1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2018 | \$6,036,459    |
| (2) Expected UAAL as of October 1, 2019                               | 4,533,206      |
| (3) Summary of Actuarial (Gain)/Loss, by component:                   |                |
| Investment Return (Actuarial Asset Basis)                             | (815,242)      |
| Salary Increases  | 30,042         |
| Active Decrements   | 93,467         |
| Inactive Mortality  | 92,501         |
| Other   | <u>136,885</u> |
| Increase in UAAL due to (Gain)/Loss                                   | (462,347)      |
| Assumption Changes  | <u>0</u>       |
| (4) Actual UAAL as of October 1, 2019                                 | \$4,070,859    |

## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

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

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

#### *Healthy Inactive Lives:*

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

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

#### *Disabled Lives:*

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

**Male:** 100% RP2000 Disabled Male setback four years

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

### Interest Rate

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 later in this section. This is based on the experience study dated August 20, 2018.

#### *For Members eligible for Normal Retirement as of August 26, 2013:*

Projected salary at retirement is increased 25% to account for non-regular compensation.

#### *For Members not eligible for Normal Retirement as of August 26, 2013 with at least 10 years of service as of that date:*

The projected frozen benefit as of August 26, 2013 includes a 25% load for the final year included in the averaging period.



*For Members with less than 10 years of service as of August 26, 2013:*  
No load is assumed.

Payroll Growth

0.00% 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

\$102,984 annually, based on the average of actual expenses incurred in the prior two fiscal years. Previously, the actual expense in the prior fiscal year was used. Using a two-year average results in a less volatile estimate than the prior method.

Amortization Method

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

Experience: 10 Years.

Assumption/Method Changes: 20 Years.

Benefit Changes: 30 Years.

Retirement Age

See table later in this section. This assumption is based on the experience study dated August 20, 2018.

Early Retirement

See table later in this section. This assumption is based on the experience study dated August 20, 2018.

Disability Rate

See table later in this section (1202 times 50%). This assumption is based on the experience study dated August 20, 2018.

Termination Rate

See table later in this section. This assumption is based on the experience study dated August 20, 2018.

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.

Funding Method

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

Interest – a half year, based on the current 7.75% assumption.

Salary – a full year based on the current 5.01% assumption.

Assumption Tables

| % Terminating<br>During the Year |       | % Becoming Disabled<br>During the Year |       | Salary Scale |       |
|----------------------------------|-------|--|-------|--------------|-------|
| Service                          | Rate  | Age                                    | Rate  | Service      | Rate  |
| 0-1                              | 20.0% | 20                                     | 0.03% | 0            | 9.00% |
| 2-4                              | 12.0% | 25                                     | 0.03% | 1-4          | 4.50% |
| 5-9                              | 7.0%  | 30                                     | 0.03% | 5+           | 4.00% |
| 10+                              | 4.0%  | 35                                     | 0.03% |              |       |
|                                  |       | 40                                     | 0.06% |              |       |
|                                  |       | 45                                     | 0.11% |              |       |
|                                  |       | 50                                     | 0.21% |              |       |
|                                  |       | 55                                     | 0.45% |              |       |
|                                  |       | 60                                     | 0.81% |              |       |

| % Retiring During the<br>Year (at least 10 years of service as<br>of August 26, 2013) <sup>1</sup> |       | % Retiring During the<br>Year (less than 10 years of service<br>as of August 26, 2013) <sup>2</sup> |        |
|--|-------|---|--------|
| Age  | Rate  | Age   | Rate   |
| 48-57  | 10.0% | 52-61   | 10.0%  |
| 58   | 50.0% | 62-66   | 40.0%  |
| 59-61  | 20.0% | 67+   | 100.0% |
| 62-66  | 40.0% |   |        |
| 67+  | 100%  |   |        |

<sup>1</sup> 100% is assumed at 28 or more years of service.

<sup>2</sup> 100% is assumed at 30 or more years of service.

## GLOSSARY

Total Annual Payroll is the projected annual rate of pay as of the valuation date for 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.

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.

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.

SPECIAL ACTUARIAL ACCOUNT ACTIVITY  
10/1/2018 to 10/1/2019

Growth Assuming 7.75% Return

|     |                             |            |
|-----|-----------------------------|------------|
| (1) | 10/1/2018 Beginning Balance | 70,988,340 |
|     | Contributions <sup>1</sup>  | 2,951,700  |
|     | Investment Earnings         | 5,437,080  |
|     | Non-Investment Expenses     | 116,965    |
|     | Investment Expenses         | 254,745    |
|     | Distributions               | 4,499,667  |

<sup>1</sup> Excludes Member Service Buyback

|     |  |              |
|-----|--|--------------|
| (2) | 09/30/2019 Ending Balance                                  | 74,505,743   |
| (3) | 09/30/2019 Actuarial Assets                                | 62,315,479   |
| (4) | Excess Earnings: (3) - (2)                                 | (12,190,264) |
| (5) | 09/30/2019 Actuarial Gain (Loss)                           | 462,347      |
| *   | Share Account Allocation:<br>Lesser of: [(4) or (5)] x 50% | (6,095,132)  |

Share Account Activity

|           |                     |               |
|-----------|---------------------|---------------|
| 10/1/2018 | Account Balance     | (107,560,159) |
|           | Interest at 7.75%   | (8,335,912)   |
| 10/1/2019 | Addition            | (6,095,132)   |
| 10/1/2019 | Benefits "Purchase" | 0             |
| 10/1/2019 | Account Balance     | (121,991,203) |

10/1/2019 Adjusted Actuarial Assets

|     |                               |               |
|-----|-------------------------------|---------------|
| (6) | Actuarial Assets (3), above   | 62,315,479    |
| (7) | 10/1/2019 Account Balance     | (121,991,203) |
|     | Adjusted Actuarial Assets     | 62,315,479    |
|     | Lesser of: (6) or [(6) - (7)] |               |

\* Per Ordinance No. 25-1999.

SPECIAL ACTUARIAL ACCOUNT

History of Benefit "Purchases" and  
Actuarial Gains and Losses

| <u>Plan Year Ended</u> | <u>Benefit<br/>"Purchases"</u> |     | <u>Net Actuarial<br/>Gain (Loss)</u> |
|------------------------|--------------------------------|-----|--------------------------------------|
| 9/30/1990              | 298,200                        | (1) | (291,699)                            |
| 9/30/1991              | 769,309                        | (2) | 350,282                              |
| 9/30/1992              | 0                              |     | 517,853                              |
| 9/30/1993              | 0                              |     | 948,397                              |
| 9/30/1994              | 151,939                        | (3) | 170,962                              |
| 9/30/1995              | 676,000                        | (4) | 372,601                              |
| 9/30/1996              | 1,051,055                      | (5) | 845,165                              |
| 9/30/1997              | 0                              |     | 1,623,510                            |
| 9/30/1998              | 1,181,867                      | (6) | 2,155,885                            |
| 9/30/1999              | 1,093,450                      | (7) | 1,997,227                            |
| 9/30/2000              | 131,451                        | (8) | 83,693                               |
| 9/30/2001              | 0                              |     | (361,917)                            |
| 9/30/2002              | 0                              |     | (1,374,030)                          |
| 9/30/2003              | 0                              |     | (755,227)                            |
| 9/30/2004              | 0                              |     | (2,509,682)                          |
| 9/30/2005              | 0                              |     | (1,530,576)                          |
| 9/30/2006              | 0                              |     | (92,489)                             |
| 9/30/2007              | 0                              |     | 1,050,783                            |
| 9/30/2008              | 0                              |     | (1,725,825)                          |
| 9/30/2009              | 0                              |     | (3,318,088)                          |
| 9/30/2010              | 0                              |     | (2,438,237)                          |
| 9/30/2011              | 0                              |     | (2,073,660)                          |
| 9/30/2018              | 0                              |     | 483,166                              |
| 9/30/2013              | 0                              |     | 813,750                              |
| 9/30/2014              | 0                              |     | 2,668,364                            |
| 9/30/2015              | (88,773)                       | (9) | 1,605,480                            |
| 9/30/2016              | 0                              |     | 315,334                              |
| 9/30/2017              | 0                              |     | 924,468                              |
| 9/30/2018              | 0                              |     | (40,985)                             |
| 9/30/2019              | 0                              |     | 462,347                              |
|                        | <hr/>                          |     | <hr/>                                |
| Total                  | 5,264,498                      |     | 876,852                              |

- (1) AIS dated 01/25/93 (revised 09/14/93)
- (2) AIS dated 12/08/93
- (3) AIS dated 06/28/96
- (4) AIS dated 01/27/97
- (5) AIS dated 01/26/98
- (6) AIS dated 08/26/99
- (7) AIS dated 05/04/00
- (8) AIS dated 02/23/01
- (9) AIS dated 01/06/17

## 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.
- 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 68.5% on October 1, 2016 to 66.0% 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 72.0%. 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 86.9% on October 1, 2016 to 93.9% on October 1, 2019, due to net favorable experience realized by the plan. The increase was offset by 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, increased from -4.4% on October 1, 2016 to -2.7% on October 1, 2019. The current Net Cash Flow Ratio of -2.7% 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                           | 285              | 289              | 289              | 293              |
| Total Inactives <sup>1</sup>            | 416              | 421              | 436              | 444              |
| Actives / Inactives <sup>1</sup>        | 68.5%            | 68.6%            | 66.3%            | 66.0%            |
| <br><u>Asset Volatility Ratio</u>       |                  |                  |                  |                  |
| Market Value of Assets (MVA)            | 53,281,168       | 58,318,169       | 61,691,922       | 61,671,199       |
| Total Annual Payroll                    | 11,735,047       | 12,394,932       | 13,050,112       | 13,367,477       |
| MVA / Total Annual Payroll              | 454.0%           | 470.5%           | 472.7%           | 461.4%           |
| <br><u>Accrued Liability (AL) Ratio</u> |                  |                  |                  |                  |
| Inactive Accrued Liability              | 44,739,379       | 43,987,195       | 45,272,715       | 47,765,654       |
| Total Accrued Liability (EAN)           | 61,454,320       | 62,003,867       | 64,696,482       | 66,386,338       |
| Inactive AL / Total AL                  | 72.8%            | 70.9%            | 70.0%            | 72.0%            |
| <br><u>Funded Ratio</u>                 |                  |                  |                  |                  |
| Actuarial Value of Assets (AVA)         | 53,430,781       | 55,984,620       | 58,660,023       | 62,315,479       |
| Total Accrued Liability (EAN)           | 61,454,320       | 62,003,867       | 64,696,482       | 66,386,338       |
| AVA / Total Accrued Liability (EAN)     | 86.9%            | 90.3%            | 90.7%            | 93.9%            |
| <br><u>Net Cash Flow Ratio</u>          |                  |                  |                  |                  |
| Net Cash Flow <sup>2</sup>              | (2,319,762)      | (2,327,235)      | (1,965,218)      | (1,640,730)      |
| Market Value of Assets (MVA)            | 53,281,168       | 58,318,169       | 61,691,922       | 61,671,199       |
| Ratio                                   | -4.4%            | -4.0%            | -3.2%            | -2.7%            |

<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.



STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2019

| <u>ASSETS</u>                        | COST VALUE    | MARKET VALUE  |
|--------------------------------------|---------------|---------------|
| Cash and Cash Equivalents:           |               |               |
| Short Term Investments               | 1,739,832.00  | 1,739,832.00  |
| Cash                                 | 2.96          | 2.96          |
| Total Cash and Equivalents           | 1,739,834.96  | 1,739,834.96  |
| Receivables:                         |               |               |
| Investment Income                    | 57,107.88     | 57,107.88     |
| Total Receivable                     | 57,107.88     | 57,107.88     |
| Investments:                         |               |               |
| Fixed Income                         | 8,528,001.16  | 8,673,003.03  |
| Equities                             | 24,861,047.60 | 37,010,402.27 |
| Pooled/Common/Commingled Funds:      |               |               |
| Equity                               | 2,200,000.00  | 6,610,481.34  |
| Real Estate                          | 4,623,041.21  | 7,598,006.63  |
| Total Investments                    | 40,212,089.97 | 59,891,893.27 |
| Total Assets                         | 42,009,032.81 | 61,688,836.11 |
| <u>LIABILITIES</u>                   |               |               |
| Payables:                            |               |               |
| Refunds of Member Contributions      | 17,510.66     | 17,510.66     |
| Administrative Expenses              | 126.55        | 126.55        |
| Total Liabilities                    | 17,637.21     | 17,637.21     |
| NET POSITION RESTRICTED FOR PENSIONS | 41,991,395.60 | 61,671,198.90 |

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

ADDITIONS

|   |            |              |
|---|------------|--------------|
| Contributions:                            |            |              |
| Member                                    |            | 323,634.02   |
| Buy-Back                                  |            | 24,202.00    |
| City                                      |            | 2,628,066.00 |
|   |            |              |
| Total Contributions                       |            | 2,975,902.02 |
|   |            |              |
| Investment Income:                        |            |              |
| Net Realized Gain (Loss)                  | 582,578.78 |              |
| Unrealized Gain (Loss)                    | 88,399.10  |              |
| Net Increase in Fair Value of Investments |            | 670,977.88   |
| Interest & Dividends                      |            | 1,203,773.87 |
| Less Investment Expense <sup>1</sup>      |            | (254,745.19) |
|   |            |              |
| Net Investment Income                     |            | 1,620,006.56 |
|   |            |              |
| Total Additions                           |            | 4,595,908.58 |

DEDUCTIONS

|                                      |  |               |
|--------------------------------------|--|---------------|
| Distributions to Members:            |  |               |
| Benefit Payments                     |  | 4,418,878.48  |
| Lump Sum DROP Distributions          |  | 0.00          |
| Lump Sum PLOP Distributions          |  | 36,404.31     |
| Refunds of Member Contributions      |  | 44,384.03     |
|                                      |  |               |
| Total Distributions                  |  | 4,499,666.82  |
|                                      |  |               |
| Administrative Expense               |  | 116,964.50    |
|                                      |  |               |
| Total Deductions                     |  | 4,616,631.32  |
|                                      |  |               |
| Net Increase in Net Position         |  | (20,722.74)   |
|                                      |  |               |
| NET POSITION RESTRICTED FOR PENSIONS |  |               |
| Beginning of the Year                |  | 61,691,921.64 |
|                                      |  |               |
| End of the Year                      |  | 61,671,198.90 |

<sup>1</sup>Investment 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 <sup>1</sup> |                 |
|--|-----------------------------|-----------------|
| 09/30/2016   | 10.92%                      |                 |
| 09/30/2017   | 14.08%                      |                 |
| 09/30/2018   | 9.29%                       |                 |
| 09/30/2019   | 2.66%                       |                 |
| Annualized Rate of Return for prior four (4) years:                    |                             | 9.16%           |
| (A) 10/01/2018 Actuarial Assets:                                       |                             | \$58,660,023.23 |
| (I) Net Investment Income:   |                             |                 |
| 1. Interest and Dividends  | 1,203,773.87                |                 |
| 2. Realized Gains (Losses)   | 582,578.78                  |                 |
| 3. Unrealized Gains (Losses)   | 88,399.10                   |                 |
| 4. Change in Actuarial Value   | 3,676,178.14                |                 |
| 5. Investment Related Expenses   | (254,745.19)                |                 |
| Total  |                             | 5,296,184.70    |
| (B) 10/01/2019 Actuarial Assets:                                       |                             | \$62,315,478.63 |
| Actuarial Asset Rate of Return = 2I/(A+B-I):                           |                             | 9.16%           |
| 10/01/2019 Limited Actuarial Assets:                                   |                             | \$62,315,478.63 |
| 10/01/2019 Market Value of Assets:                                     |                             | \$61,671,198.90 |
| Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) |                             | \$815,242.40    |

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

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

REVENUES

|                                     |              |              |
|-------------------------------------|--------------|--------------|
| Contributions:                      |              |              |
| Member                              | 323,634.02   |              |
| Buy-Back                            | 24,202.00    |              |
| City                                | 2,628,066.00 |              |
| Total Contributions                 |              | 2,975,902.02 |
| Earnings from Investments:          |              |              |
| Interest & Dividends                | 1,203,773.87 |              |
| Net Realized Gain (Loss)            | 582,578.78   |              |
| Unrealized Gain (Loss)              | 88,399.10    |              |
| Change in Actuarial Value           | 3,676,178.14 |              |
| Total Earnings and Investment Gains |              | 5,550,929.89 |

EXPENDITURES

|   |              |               |
|---|--------------|---------------|
| Distributions to Members:               |              |               |
| Benefit Payments                        | 4,418,878.48 |               |
| Lump Sum DROP Distributions             | 0.00         |               |
| Lump Sum PLOP Distributions             | 36,404.31    |               |
| Refunds of Member Contributions         | 44,384.03    |               |
| Total Distributions                     |              | 4,499,666.82  |
| Expenses:                               |              |               |
| Investment related <sup>1</sup>         | 254,745.19   |               |
| Administrative                          | 116,964.50   |               |
| Total Expenses                          |              | 371,709.69    |
| Change in Net Assets for the Year       |              | 3,655,455.40  |
| Net Assets Beginning of the Year        |              | 58,660,023.23 |
| Net Assets End of the Year <sup>2</sup> |              | 62,315,478.63 |

<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.

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

|  |                       |
|--|-----------------------|
| (1) Required City Contributions  | \$2,628,056.00        |
| (2) Less 2018 Prepaid Contribution   | 0.00                  |
| (3) Less Actual City Contributions   | <u>(2,628,066.00)</u> |
| (4) City Contributions in Excess of Minimum Requirement Applied to Reduce<br>Unfunded Actuarial Accrued Liability as of September 30, 2019 | (\$10.00)             |

## 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                              | 285              | 289              | 289              | 293              |
| Average Current Age                 | 46.2             | 47.1             | 47.5             | 46.7             |
| Average Age at Employment           | 38.3             | 39.0             | 39.0             | 38.6             |
| Average Past Service                | 7.9              | 8.1              | 8.5              | 8.1              |
| Average Annual Salary               | \$41,176         | \$42,889         | \$45,156         | \$45,623         |
| <u>Service Retirees</u>             |                  |                  |                  |                  |
| Number                              | 306              | 309              | 321              | 329              |
| Average Current Age                 | 66.8             | 67.3             | 67.7             | 68.2             |
| Average Annual Benefit              | \$12,816         | \$12,852         | \$12,633         | \$13,148         |
| <u>DROP Retirees</u>                |                  |                  |                  |                  |
| Number                              | 9                | 2                | 0                | 0                |
| Average Current Age                 | 62.7             | 63.3             | N/A              | N/A              |
| Average Annual Benefit              | \$14,932         | \$12,882         | N/A              | N/A              |
| <u>Beneficiaries</u>                |                  |                  |                  |                  |
| Number                              | 25               | 28               | 35               | 36               |
| Average Current Age                 | 65.4             | 67.0             | 65.0             | 66.1             |
| Average Annual Benefit              | \$5,874          | \$6,414          | \$6,161          | \$6,086          |
| <u>Disability Retirees</u>          |                  |                  |                  |                  |
| Number                              | 3                | 3                | 3                | 2                |
| Average Current Age                 | 67.7             | 68.7             | 69.7             | 69.5             |
| Average Annual Benefit              | \$13,052         | \$13,052         | \$13,052         | \$7,548          |
| <u>Terminated Vested</u>            |                  |                  |                  |                  |
| Number                              | 96               | 127              | 132              | 146              |
| Average Current Age <sup>1</sup>    | 51.6             | 47.0             | 51.9             | 52.6             |
| Average Annual Benefit <sup>2</sup> | \$5,202          | \$5,648          | \$5,291          | \$5,124          |

<sup>1</sup> The Average Current Age excludes participants awaiting a refund of contributions.

<sup>2</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 | 9  | 2  | 1  | 2  |    |     |       |       |       |       |     | 14    |
| 25 - 29 | 7  | 5  | 2  | 1  | 3  | 2   |       |       |       |       |     | 20    |
| 30 - 34 | 5  |    | 4  | 2  | 1  | 6   | 6     |       |       |       |     | 24    |
| 35 - 39 | 6  | 2  | 4  | 2  | 2  | 6   | 2     | 3     |       |       |     | 27    |
| 40 - 44 | 2  | 2  | 3  | 2  | 4  | 2   | 5     | 5     |       |       |     | 25    |
| 45 - 49 | 3  | 2  | 4  | 2  | 4  | 10  | 10    | 6     | 3     | 1     |     | 45    |
| 50 - 54 | 1  | 6  | 2  | 1  | 7  | 10  | 5     | 1     | 5     | 1     |     | 39    |
| 55 - 59 | 4  | 5  | 4  | 3  | 5  | 8   | 9     | 11    | 6     | 4     | 1   | 60    |
| 60 - 64 | 2  |    | 2  | 1  | 4  | 7   | 8     | 2     | 1     | 2     |     | 29    |
| 65+     |    |    | 1  |    | 1  | 4   | 4     |       |       |       |     | 10    |
| Total   | 39 | 24 | 27 | 16 | 31 | 55  | 49    | 28    | 15    | 8     | 1   | 293   |

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

|  |            |
|--|------------|
| a. Number in prior valuation 10/1/2018                                     | 289        |
| b. Terminations  |            |
| i. Vested (partial or full) with deferred annuity                          | (3)        |
| ii. Vested in refund of member contributions only                          | (7)        |
| iii. Refund of member contributions or full lump sum distribution received | (12)       |
| c. Deaths  |            |
| i. Beneficiary receiving benefits  | 0          |
| ii. No future benefits payable   | 0          |
| d. Disabled  |            |
| e. Retired   | (14)       |
| f. DROP  |            |
| g. Continuing participants   | 253        |
| h. New entrants  |            |
| i. Total active life participants in valuation                             | <u>293</u> |

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

|                               | Service<br>Retirees,<br>Vested<br>Receiving<br><u>Benefits</u> | DROP<br><u>Benefits</u> | Receiving<br>Death<br><u>Benefits</u> | Receiving<br>Disability<br><u>Benefits</u> | Vested<br>(Deferred<br>Annuity) | Vested<br>(Due<br>Refund) | <u>Total</u> |
|-------------------------------|--|-------------------------|---------------------------------------|--|---------------------------------|---------------------------|--------------|
| a. Number prior valuation     | 321  | 0                       | 35                                    | 3  | 77                              | 55                        | 491          |
| Retired                       | 15   | 0                       | 0                                     | 0  | (2)                             | 0                         | 13           |
| DROP                          | 0  | 0                       | 0                                     | 0  | 0                               | 0                         | 0            |
| Vested (Deferred Annuity)     | 0  | 0                       | 0                                     | 0  | 3                               | 0                         | 3            |
| Vested (Due Refund)           | 0  | 0                       | 0                                     | 0  | 0                               | 7                         | 7            |
| Hired/Terminated in Same Year | 0  | 0                       | 0                                     | 0  | 0                               | 14                        | 14           |
| Death, With Survivor          | (1)  | 0                       | 1                                     | 0  | 0                               | 0                         | 0            |
| Death, No Survivor            | (5)  | 0                       | 0                                     | (1)  | 0                               | 0                         | (6)          |
| Disabled                      | 0  | 0                       | 0                                     | 0  | 0                               | 0                         | 0            |
| Refund of Contributions       | 0  | 0                       | 0                                     | 0  | (1)                             | (7)                       | (8)          |
| Rehires                       | 0  | 0                       | 0                                     | 0  | 0                               | 0                         | 0            |
| Expired Annuities             | (1)  | 0                       | 0                                     | 0  | 0                               | 0                         | (1)          |
| Data Corrections              | 0  | 0                       | 0                                     | 0  | 0                               | 0                         | 0            |
| b. Number current valuation   | 329  | 0                       | 36                                    | 2  | 77                              | 69                        | 513          |



SUMMARY OF CURRENT PLAN  
(Through Ordinance 41-2019)

|                                   |  |
|-----------------------------------|--|
| <u>Original Effective Date</u>    | December 30, 1966.   |
| <u>Credited Service</u>           | Years and fractional parts of years of service with the City as a General Employee. City Manager, City Attorney or Assistant City Attorney may opt out within the first year of employment.  |
| <u>Salary</u>                     | <p><i>Prior to August 26, 2013 (and for Members eligible for Retirement as of that date):</i> Total compensation reportable on Form W-2, plus all tax deferred, tax sheltered, and tax exempt items of income. Expense reimbursements or payments of expense allowances are excluded.</p> <p><i>For the calculation of the frozen accrued benefit as of August 26, 2013:</i> Salary shall include any payments of accrued leave that would have been included in Salary if the Member retired prior to August 26, 2013. However, the accrued leave balance shall be reduced by the amount of vacation or sick leave used subsequent to August 26, 2013 and the frozen accrued benefit shall be adjusted accordingly.</p> <p><i>On and After August 26, 2013:</i> Base pay, excluding overtime and all other forms of compensation.</p> |
| <u>Average Final Compensation</u> | <p><i>For computing benefits based on Credited Service on and after August 26, 2013:</i> Average of Salary during the five highest years of the last ten, but in no event less than the highest three-year average of the effective date.</p> <p><i>For computing the frozen benefit or for Members eligible for Retirement or who terminate employment prior to August 26, 2013:</i> The Average Final Compensation is the average of the five highest years of the last ten years as of August 26, 2013.</p> <p><i>For Members eligible for Normal Retirement as of August 26, 2013:</i> The average of the highest 5 years of Salary of the last 10 years.</p>  |

## Normal Retirement

*For the frozen accrued benefit for all Members and for all benefits for Members with at least 10 Years of Service as of August 26, 2013:*

|                 |   |
|-----------------|---|
| Date            | First of the month coinciding with or following the earlier of: 1) age 58 and the completion of 7.50 years of Credited Service, or 2) the completion of 28 years of Credited Service, regardless of age.                                      |
| Benefit         | 2.482% of Average Final Compensation as of August 26, 2013 times Credited Service through August 26, 2013 (Members who are eligible for Normal Retirement as of August 26, 2013 continue to accrue benefits under the old benefit structure). |
| Form of Benefit | Life Annuity (options available).   |

*For the benefits accrued on and after August 26, 2013:*

|                 |  |
|-----------------|--|
| Date            | First of the month coinciding with or following the earlier of: 1) age 58 and the completion of 7.50 years of Credited Service, or 2) the completion of 28 years of Credited Service, regardless of age. |
| Benefit         | 2.00% of Average Final Compensation times Credited Service on and after August 26, 2013.   |
| Form of Benefit | Life Annuity (options available).  |

*For the benefits accrued on and after August 26, 2013 for Members with less than 10 Years of Service as of that date:*

|      |  |
|------|--|
| Date | First of the month coinciding with or following the earlier of: 1) age 62 and the completion of 10 years of Credited Service, or 2) the completion of 30 years of Credited Service, regardless of age. |
|------|--|

## Early Retirement

*For the frozen accrued benefit for all Members and for all benefits for Members with at least 10 Years of Service as of August 26, 2013:*

|         |   |
|---------|---|
| Date    | Later of age 48 and the completion of 7.50 years of Credited Service.   |
| Benefit | Same as for Normal Retirement but reduced 3.00% for each year that Early Retirement precedes Normal Retirement. |

*For benefits accrued on and after August 26, 2013 for Members with less than 10 Years of service as of that date:*

|         |   |
|---------|---|
| Date    | Later of age 52 and the completion of 10 years of Credited Service.         |
| Benefit | Same as for Normal Retirement but actuarially reduced for Early Retirement. |

## Vesting

|          |   |
|----------|---|
| Schedule | 0% for less than 10 years, 100% after 10 years.<br><br>Members are 100% vested in their frozen accrued benefit as of August 26, 2013. |
| Benefit  | Vested accrued benefit (determined as for Normal Retirement) paid beginning at the otherwise Normal Retirement Date.                  |

## Disability

|                 |   |
|-----------------|---|
| Eligibility     | Total and permanent (as determined by the Board) after completion of 10 years of Credited Service.                        |
| Benefit         | Accrued Benefit (determined as for Normal Retirement).  |
| Form of Benefit | Paid until earlier of death, recovery, Normal Retirement Date, or election by Member to receive Early Retirement benefit. |
| Maximum         | Total of Plan, Workers Compensation, and Social Security benefits shall not exceed 100% of Average Final Compensation.    |

### Death Benefits

|                  |   |
|------------------|---|
| Prior to Vesting | None.   |
| Vested           | Beneficiary receives a monthly benefit which is the actuarial equivalent of 50% of the Member's accrued benefit at the date of death. |
| Post-Retirement  | According to option selected, if any.   |

### Contributions

|         |   |
|---------|---|
| Members | 2.50% of Salary.  |
| City    | Remaining amount necessary to pay the Normal Cost and fund the accrued, past service liability over 30 years. |

### Board of Trustees

Three full-time General Employees of the System elected by the membership, one General Employee appointed by the Board and confirmed by the City Manager, one citizen selected by the Board and appointed by the City Council as a ministerial duty.

### Deferred Retirement Option Plan

|                      |   |
|----------------------|---|
| Eligibility          | The original DROP is closed to any new participants after August 26, 2013. A subsequent program "DROP II" is available to participants effective November 26, 2019.   |
| Participation        | Not more than 60 months.  |
| Rate of Return       | The Account is credited with the actual net rate of investment return (total return net of investment management fees, brokerage commissions and transaction costs) minus 2% after each fiscal year end. The annual return is subject to a minimum of 0% and a maximum equal to the current valuation investment return assumption as adopted by the Board. |
| Form of Distribution | Cash lump sum (options available) payable at termination of employment.   |