# City of Boynton Beach Municipal Firefighters' Pension Trust Fund

ACTUARIAL VALUATION REPORT AS OF OCTOBER 1, 2022

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2024









April 26, 2023

Board of Trustees City of Boynton Beach Municipal Firefighters' Pension Trust Fund Boynton Beach, Florida

#### Re: City of Boynton Beach Municipal Firefighters' Pension Trust Fund Actuarial Valuation as of October 1, 2022 and Actuarial Disclosures

**Dear Board Members:** 

The results of the October 1, 2022 Annual Actuarial Valuation of the City of Boynton Beach Municipal Firefighters' Pension Trust Fund are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2024, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2023. This report should not be relied on for any purpose other than the purpose described herein. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section B of this report. This report includes risk metrics in Section A, but does include a robust assessment of the risks of future experience not meeting the actuarial assumptions. A robust assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The findings in this report are based on data and other information through September 30, 2022. The valuation was based upon information furnished by the Plan Administrator concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator.

This report was prepared using certain assumptions approved by the Board and prescribed by the Florida Statutes as described in the section of this report entitled Actuarial Assumptions and Cost Methods. The prescribed assumptions are the assumed mortality rates detailed in the Actuarial Assumptions and Cost

Board of Trustees City of Boynton Beach Municipal Firefighters' Pension Trust Fund April 26, 2023 Page 2

Methods section in accordance with Florida Statutes Chapter 112.63. All actuarial assumptions used in this report are reasonable for purposes of this valuation.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the City of Boynton Beach Municipal Firefighters' Pension Trust Fund as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Peter N. Strong and Jeffrey Amrose actuaries are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. 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.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

Peter N. Strong, FSA, MAAA, FCA Enrolled Actuary No. 23-06975

Jeffrey Amrose, MAAA, FCA /Enrolled Actuary No. 23-06599



# TABLE OF CONTENTS

| <u>Section</u> | Title  | <u>Page</u> |
|----------------|--|-------------|
| Α              | Discussion of Valuation Results  |             |
|                | <ol> <li>Comparison of Required Employer Contributions</li> <li>Risks Associated with the Measuring the Accrued Liability and</li> </ol> | 1           |
|                | Actuarially Determined Contribution  | 5           |
|                | 3. Chapter Revenue   | 8           |
| В              | Valuation Results  |             |
|                | 1. Participant Data  | 9           |
|                | 2. Actuarially Determined Employer Contribution (ADEC)   | 10          |
|                | 3. Actuarial Value of Benefits and Assets  | 11          |
|                | 4. Calculation of Employer Normal Cost   | 12          |
|                | 5. Liquidation of the Unfunded Actuarial Liability   | 13          |
|                | 6. Actuarial Gains and Losses  | 15          |
|                | 7. Actual Compared to Expected Decrements  | 20          |
|                | <ol> <li>Cumulative Actuarial Gains (Losses)</li> <li>Recent History of Valuation Results</li> </ol>                                     | 21<br>22    |
|                | 10. Recent History of Required and Actual Contributions  | 22          |
|                | 11. Actuarial Assumptions and Cost Method  | 23          |
|                | 12. Glossary of Terms  | 30          |
| C              | Pension Fund Information   |             |
|                | 1. Summary of Assets   | 33          |
|                | 2. Pension Fund Income and Disbursements   | 34          |
|                | 3. Actuarial Value of Assets   | 35          |
|                | 4. Reconciliation of DROP Accounts   | 36          |
|                | 5. Investment Rate of Return   | 37          |
| D              | Financial Accounting Information   |             |
|                | 1. FASB No. 35   | 38          |
|                | 2. GASB No. 67   | 39          |
| E              | Miscellaneous Information  |             |
|                | 1. Reconciliation of Membership Data   | 45          |
|                | 2. Age/Service/Salary Distributions  | 46          |
| F              | Summary of Plan Provisions   | 48          |



**SECTION A** 

**DISCUSSION OF VALUATION RESULTS** 

# **DISCUSSION OF VALUATION RESULTS**

# **Comparison of Required Employer Contributions**

A comparison of the required employer contribution developed in this and the last actuarial valuation is shown below. The required contribution dollar amounts shown below are estimates only. The contribution policy of the City is to contribute the dollar amount determined by multiplying the required percentage of payroll determined as of the valuation date by the projected pensionable payroll for the year.

|   | For FYE 9/30/24<br>Based on<br>10/1/2022 Valuation<br>if contributed on<br>10/1/2023 |                      | Based on<br>ion 10/1/2021 Valuation |                      | Based onBased onInc/2022 Valuation10/1/2021 Valuation(Deontributed onif contributed on |                     | Increase<br>(Decrease) |
|---|--|----------------------|-------------------------------------|----------------------|--|---------------------|------------------------|
| Required Employer/State<br>Contribution<br>As % of Covered Payroll  | \$   | 7,164,753<br>54.14 % | \$                                  | 6,647,312<br>55.38 % | \$   | 517,441<br>(1.24) % |                        |
| State Contribution Allocated<br>(Including Amounts from<br>State contribution reserve)<br>As % of Covered Payroll | \$   | 943,466<br>7.13 %    | \$                                  | 943,466<br>7.86 %    | \$   | 0<br>(0.73) %       |                        |
| Net Required Employer<br>(City) Contribution<br>As % of Covered Payroll   | \$   | 6,221,287<br>47.01 % | \$                                  | 5,703,846<br>47.52 % | \$   | 517,441<br>(0.51) % |                        |

The required employer contribution has been computed under the assumption that the amount to be allocated from current and prior excess State money this year and next year will be \$943,466, based on a re-evaluated cost of the COLA from benefit changes as described below.

The employer contribution listed above is for the City's fiscal year ending September 30, 2024 and has been calculated as though payment is made in a single lump sum on October 1, 2023. The total minimum required employer contribution for the fiscal year ending September 30, 2022 was \$6,607,751. The actual employer contribution during the fiscal year ending September 30, 2022 was \$6,613,664, including the use of excess State contribution reserves of \$11,771.

# **Revisions in Benefits**

There have been the following revisions in benefits since the previous valuation:

• Effective October 1, 2023, the maximum period of DROP participation is the earlier of 8 years of participation in the DROP or 33 years of employment. DROP participants electing to remain in the DROP longer than five years shall resume making employee "pick-up" contributions during years 6



through 8 at the rate of 6% of Compensation, with 5% of Compensation allocated toward funding the COLA and the remaining 1% applied toward the unfunded liabilities in the Pension Trust Fund.

- Effective October 1, 2023, annual COLA increases will commence beginning on the October 1st following the later of (i) five years after retirement, or (ii) the date of separation from service (for DROP participants who elect to extend their DROP participation period longer than five years).
- Section 18-194(b) on the "Consolidated Deferred Retirement Option Plan" for members hired on or after January 1, 2020 is eliminated. For pension deposits into the DROP during years one through five, interest will be credited under one of the following three options elected by the member at retirement: (1) Gain or loss at the same rate earned by the Plan; (2) Guaranteed rate of 7%; or (3) The rate earned by a self-directed account utilizing mutual funds selected by the Board.
- Effective October 1, 2023, for DROP participants electing to remain in the DROP longer than five years, pension deposits into the DROP during years 6 through 8 will be credited with interest at the same annual rate of return earned by investments in the Plan, net of investment expenses, but no less than 0% and no more than 8% per year.

The impact of the above revisions in benefits was measured in the Actuarial Impact Statement dated June 10, 2022 and reflected a decrease in the total actuarially determined employer contribution (ADEC) for the fiscal year ending September 30, 2023. Since the benefit change responsible for this decrease is associated exclusively with the cost of the COLA, which is borne by 5% Plan member contributions and allocations from annual Chapter 175 State money, the cost reduction reduces the amount of annual Chapter 175 State money needed to fund the COLA by \$124,832 (from \$1,068,298 to \$943,466) beginning in fiscal year 2023. The prior valuation results (as of October 1, 2021) shown in this valuation report reflect these changes.

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

# **Revisions in Actuarial Assumptions or Methods**

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

#### **Actuarial Experience**

There was a net actuarial experience loss of \$3,621,631 for the year, which means that overall actual experience was less favorable than expected. The actuarial loss is primarily due to lower than expected investment returns on the actuarial value of assets. The net investment return on the actuarial value of assets was 5.24% versus an assumed return of 7.15%. The net investment return on the market value of assets was -15.66%. There were also losses due to higher than expected salary increases (10.0% actual versus 7.5% expected). These losses were offset somewhat by fewer retirements than expected (2 actual versus 3 expected), although this had a much smaller impact.

The net actuarial loss for the year caused an increase in the annual required employer contribution of 1.82% of covered payroll, or about \$241,000.



# **Funded Ratio**

The funded ratio was 74.6% this year compared to 74.9% last year. The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued liability.

## **Analysis of Change in Employer Contribution**

The components of change in the required employer contribution are as follows:

| Contribution Rate Last Year     | 47.52 %     |
|---------------------------------|-------------|
| Revision in Benefits            | 0.00        |
| Experience (Gains) or Losses    | 1.82        |
| Revision in Assumptions/Methods | 0.00        |
| Amortization Payment on UAAL    | (2.23)      |
| Normal Cost Rate                | (0.49)      |
| Administrative Expense          | (0.34)      |
| State Contribution              | <u>0.73</u> |
| Contribution Rate This Year     | 47.01 %     |

Covered payroll as of October 1, 2022 was \$12,910,978 versus \$11,710,333 last year, an increase of 10.25%. Amortization payments on the unfunded liability are scheduled to increase by 2.50% per year. When covered payroll increases more than 2.50%, the amortization payment as a percentage of covered payroll will decrease. The 10.25% increase in covered payroll caused the Amortization Payment on the UAAL (expressed as a percentage of pay) to decrease by approximately 2.23% of covered payroll.

# **Required Contributions in Later Years**

The current calculated City contribution requirement is 47.01% of payroll starting October 1, 2023. Under the asset smoothing method, market value gains and losses are recognized over five years. As of October 1, 2022, the actuarial value of assets exceeded the market value by \$17,571,398. Once all the gains and losses through September 30, 2022 have been fully recognized in the actuarial value of assets, the employer contribution rate will increase by roughly 8.81% of payroll unless there are offsetting gains.

#### **Relationship to Market Value**

If Market Value had been the basis for the valuation, the City contribution rate would have been 55.82% (a dollar amount of \$7,387,181) and the funded ratio would have been 64.6%. The funded ratio on a market value basis was 84.9% last year.

# **13<sup>th</sup> Check Provision**

The Plan provides for a 13<sup>th</sup> check if there is a net actuarial gain for the previous year. The Plan experienced a loss during the prior plan year and the cumulative balance of actuarial gains and losses is negative (a net loss), so no funds are available to provide 13<sup>th</sup> checks in 2022.



# **Conclusion**

The funded ratio is 74.6% this year, whereas it was over 100% in the year 2000. Steps have been taken in recent years to address this issue, such as strengthening the actuarial assumptions, including lowering the investment return assumption from 8.5% to 7.15% over time, applying an additional \$1,150,000 towards the unfunded liability, and reducing the amortization period in the amortization of the unfunded liability to a maximum of 25 years.

The remainder of this Report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.



# RISKS ASSOCIATED WITH THE MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

- 1. Investment risk actual investment returns may differ from the expected returns;
- Contribution risk actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
- 3. Salary and Payroll risk actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
- 4. Longevity risk members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
- 5. Other demographic risks members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

# PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status



and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

|  | 2022  | 2021  |
|--|-------|-------|
| Ratio of the market value of assets to payroll   | 8.73  | 12.03 |
| Ratio of actuarial accrued liability to payroll  | 13.52 | 14.16 |
| Ratio of actives to retirees and beneficiaries   | 0.88  | 0.83  |
| Ratio of net cash flow to market value of assets | 0.1%  | 0.5%  |

## **RATIO OF MARKET VALUE OF ASSETS TO PAYROLL**

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

## **RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL**

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

# **RATIO OF ACTIVES TO RETIREES AND BENEFICIARIES**

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A supermature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

#### **RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS**

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.



# ADDITIONAL RISK ASSESSMENT

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.



# **CHAPTER REVENUE**

Increments in Chapter revenue over that received in 1998 must first be used to fund the cost of compliance with minimum benefits. Once minimums are met, any subsequent additional Chapter revenue must be used to provide extra benefits.

As of the valuation date, all minimum Chapter requirements have been met.

|    | Actuarial Confirmation of the Use of State Chapter Money                            |         |                             |  |  |  |
|----|---|---------|-----------------------------|--|--|--|
| 1. | Fire Regular<br>Fire Supplemental<br>Total Base Amount Previous Plan Year           | \$<br>_ | 1,062,385<br>0<br>1,062,385 |  |  |  |
| 2. | Fire Regular<br>Fire Supplemental<br>Total Amount Received for Previous Plan Year   | _       | 1,056,527<br>0<br>1,056,527 |  |  |  |
| 3. | Adjustment to Base Amount Due to Reevaluation of COLA cost                          |         | 5,913                       |  |  |  |
| 4. | Excess Funds for Previous Plan Year   |         | (11,771)                    |  |  |  |
| 5. | Accumulated Excess at Beginning of Previous Year                                    |         | 1,668,034                   |  |  |  |
| 6. | Prior Excess Used in Previous Plan Year   |         | 0                           |  |  |  |
| 7. | Accumulated Excess as of September 30, 2022<br>(Available for Benefit Improvements) |         | 1,656,263                   |  |  |  |
| 8. | Fire Regular<br>Fire Supplemental<br>Base Amount This Plan Year - Fire              | _       | 1,068,298<br>0<br>1,068,298 |  |  |  |

Note: The above exhibit confirms the use of State Chapter 175 Money for the fiscal year ending September 30, 2022. In the fiscal year ending September 30, 2023, the Base Amount for Fire Regular State Chapter 175 Money will decrease to \$943,466 due to a reevaluation of the actuarial cost of the COLA.



**SECTION B** 

VALUATION RESULTS

| PARTICIPANT DATA   |                               |  |          |  |  |  |
|--|-------------------------------|--|----------|--|--|--|
|  | October 1, 2022 October 1, 20 |  |          | tober 1, 2021  |  |  |
| ACTIVE MEMBERS   |                               |  |          |  |  |  |
| Number<br>Covered Annual Payroll<br>Average Annual Payroll<br>Average Age<br>Average Past Service<br>Average Age at Hire | \$<br>\$                      | 117<br>12,910,978<br>110,350<br>38.8<br>11.2<br>27.6 | \$<br>\$ | 111<br>11,710,333<br>105,498<br>38.9<br>11.2<br>27.7 |  |  |
| RETIREES & BENEFICIARIES & DROP  |                               |  | <u> </u> |  |  |  |
| Number<br>Annual Benefits<br>Average Annual Benefit<br>Average Age   | \$<br>\$                      | 129<br>8,269,773<br>64,107<br>63.0                   | \$<br>\$ | 129<br>8,080,500<br>62,640<br>62.5                   |  |  |
| DISABILITY RETIREES  |                               |  |          |  |  |  |
| Number<br>Annual Benefits<br>Average Annual Benefit<br>Average Age   | \$<br>\$                      | 4<br>195,292<br>48,823<br>50.3                       | \$<br>\$ | 4<br>193,448<br>48,362<br>49.3                       |  |  |
| TERMINATED VESTED MEMBERS  |                               |  |          |  |  |  |
| Number<br>Annual Benefits<br>Average Annual Benefit<br>Average Age   | \$<br>\$                      | 2<br>77,127<br>38,564<br>42.6                        | \$<br>\$ | 2<br>77,127<br>38,564<br>41.6                        |  |  |



| ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)   |                 |   |  |  |  |  |
|---|-----------------|---|--|--|--|--|
| A. Valuation Date   | October 1, 2022 | October 1, 2021<br>From 6/10/22 Actuarial<br>Impact Statement |  |  |  |  |
| B. ADEC to Be Paid During   |                 |   |  |  |  |  |
| Fiscal Year Ending  | 9/30/2024       | 9/30/2023   |  |  |  |  |
| C. Assumed Date of Employer Contrib.  | 10/1/2023       | 10/1/2022   |  |  |  |  |
| D. Annual Payment to Amortize   |                 |   |  |  |  |  |
| Unfunded Actuarial Liability  | \$ 3,931,151    | \$ 3,613,145  |  |  |  |  |
| E. Employer Normal Cost   | 3,058,824       | 2,871,697   |  |  |  |  |
| F. ADEC if Paid on the Valuation<br>Date: D+E   | 6,989,975       | 6,484,842   |  |  |  |  |
| G. ADEC Adjusted for Frequency of<br>Payments   | 6,989,975       | 6,484,842   |  |  |  |  |
| H. ADEC as % of Covered Payroll   | 54.14 %         | 55.38 %   |  |  |  |  |
| I. Covered Payroll per Valuation  | 12,910,978      | 11,710,333  |  |  |  |  |
| J. Assumed Rate of Increase in Covered<br>Payroll to Contribution Year  | 2.50 %          | 2.50 %  |  |  |  |  |
| K. Covered Payroll for Contribution Year  | 13,233,752      | 12,003,091  |  |  |  |  |
| L. ADEC for Contribution Year: H x K  | 7,164,753       | 6,647,312   |  |  |  |  |
| M. Estimate of State Allocated Revenue in<br>Contribution Year (including amounts from<br>Accumulated Excess Reserve)   | 943,466         | 943,466   |  |  |  |  |
| N. Actuarially Determined Employer<br>Contribution (ADEC) in Contribution Year  | 6,221,287       | 5,703,846   |  |  |  |  |
| O. ADEC as % of Covered Payroll in<br>Contribution Year: N ÷ K  | 47.01 %         | 47.52 %   |  |  |  |  |
| <ul> <li>P. Estimated Amount of Accumulated Excess</li> <li>Premium Tax Revenue Used to Offset ADEC</li> <li>(If Actual State Revenue = \$1,056,527)</li> </ul> | 0               | 0   |  |  |  |  |



|    | ACTUARIAL VALUE OF BENEFITS AND ASSETS  |                                 |   |  |  |  |  |
|----|---|---------------------------------|---|--|--|--|--|
| A. | Valuation Date  | October 1, 2022                 | October 1, 2021<br>From 6/10/22 Actuarial<br>Impact Statement |  |  |  |  |
| В. | Actuarial Present Value of All Projected<br>Benefits for<br>1. Active Members   |                                 | impuer statement  |  |  |  |  |
|    | <ul><li>a. Service Retirement Benefits</li><li>b. Vesting Benefits</li></ul>  | \$ 89,939,447<br>3,855,780      | \$ 81,899,532<br>3,748,287                                    |  |  |  |  |
|    | <ul> <li>c. Disability Benefits</li> <li>d. Preretirement Death Benefits</li> <li>e. Return of Member Contributions</li> </ul>            | 2,211,059<br>704,208<br>218,407 | 2,075,764<br>670,667<br>195,851                               |  |  |  |  |
|    | f. Total  | 96,928,901                      | 88,590,101  |  |  |  |  |
|    | <ol> <li>Inactive Members         <ul> <li>a. Service Retirees &amp; Beneficiaries</li> <li>b. Disability Retirees</li> </ul> </li> </ol> | 105,795,029<br>2,992,983        | 103,983,261<br>2,968,202                                      |  |  |  |  |
|    | c. Terminated Vested Members<br>d. Total  | <u> </u>                        | 830,675<br>107,782,138  |  |  |  |  |
|    | 3. Total for All Members  | 206,608,120                     | 196,372,239   |  |  |  |  |
| C. | Actuarial Accrued (Past Service) Liability  | 174,533,538                     | 165,859,093   |  |  |  |  |
| D. | Actuarial Value of Accumulated Plan<br>Benefits per FASB No. 35   | 163,053,880                     | 154,245,642   |  |  |  |  |
| E. | Plan Assets<br>1. Market Value<br>2. Actuarial Value  | 112,665,943<br>130,237,341      | 140,845,497<br>124,219,104                                    |  |  |  |  |
| F. | Unfunded Actuarial Accrued Liability:<br>C-E2   | 44,296,197                      | 41,639,989  |  |  |  |  |
| G. | Actuarial Present Value of Projected<br>Covered Payroll   | 99,108,201                      | 92,064,552  |  |  |  |  |
| H. | Actuarial Present Value of Projected<br>Member Contributions  | 11,892,985                      | 11,047,747  |  |  |  |  |
| ١. | Accumulated Value of Member<br>Contributions  | 12,247,651                      | 11,176,646  |  |  |  |  |
| J. | Funded Ratio: E2/C  | 74.6%                           | 74.9%   |  |  |  |  |



|   | ENTRY AGE NORMAL METHOD<br>CALCULATION OF EMPLOYER NORMAL COST  |                 |   |   |   |  |  |
|---|---|-----------------|---|---|---|--|--|
| A | A. Valuation Date   | October 1, 2022 |   | October 1, 2021<br>From 6/10/22 Actuarial<br>Impact Statement |   |  |  |
| E | 3. Normal Cost for  |                 |   | mp  |   |  |  |
|   | <ol> <li>Service Retirement Benefits</li> <li>Vesting Benefits</li> <li>Disability Benefits</li> <li>Preretirement Death Benefits</li> <li>Return of Member Contributions</li> <li>Total for Future Benefits</li> <li>Assumed Amount for<br/>Administrative Expenses</li> </ol> | \$              | 3,826,584<br>284,404<br>205,767<br>44,363<br>61,868<br>4,422,986<br>185,155 | \$  | 3,523,737<br>262,005<br>187,350<br>40,806<br>55,343<br>4,069,241<br>207,696 |  |  |
|   | 8. Total Normal Cost  |                 | 4,608,141   |   | 4,276,937   |  |  |
| 0 | C. Expected Member Contribution   |                 | 1,549,317   |   | 1,405,240   |  |  |
| [ | D. Employer Normal Cost: B8-C   |                 | 3,058,824   |   | 2,871,697   |  |  |
| E | E. Employer Normal Cost as a % of<br>Covered Payroll  |                 | 23.69%  |   | 24.52%  |  |  |



F

# LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

| A. UAAL Amor        | A. UAAL Amortization Period and Payments |               |           |               |              |  |  |
|---------------------|--|---------------|-----------|---------------|--------------|--|--|
|                     | Original UAAL                            |               |           | Current UAAL  |              |  |  |
|                     | Amortization                             |               |           |               |              |  |  |
| Date<br>Established | Period                                   | <b>A</b>      | Years     | <b>A</b>      | Decimient    |  |  |
| Established         | (Years)                                  | Amount        | Remaining | Amount        | Payment      |  |  |
| 10/1/1997           | 30                                       | \$ 1,201,102  | 5         | \$ 715,059    | \$ 155,975   |  |  |
| 10/1/1999           | 30                                       | 613,865       | 7         | 493,758       | 80,263       |  |  |
| 10/1/2000           | 30                                       | (1,240,378)   | 8         | (1,054,020)   | (153,093)    |  |  |
| 10/1/2001           | 30                                       | 857,564       | 9         | 788,625       | 103,957      |  |  |
| 10/1/2003           | 30                                       | 4,337,161     | 11        | 4,505,356     | 506,305      |  |  |
| 10/1/2004           | 30                                       | 4,373,725     | 12        | 4,710,398     | 495,188      |  |  |
| 10/1/2005           | 30                                       | (1,004,416)   | 13        | (1,114,845)   | (110,386)    |  |  |
| 10/1/2005           | 30                                       | 3,040,117     | 13        | 3,374,365     | 334,111      |  |  |
| 10/1/2006           | 30                                       | 2,426,747     | 14        | 2,744,637     | 257,441      |  |  |
| 10/1/2006           | 30                                       | 1,889,229     | 14        | 2,136,709     | 200,418      |  |  |
| 10/1/2007           | 30                                       | (12,675)      | 15        | (14,451)      | (1,290)      |  |  |
| 10/1/2007           | 30                                       | (1,424,046)   | 15        | (1,626,205)   | (145,215)    |  |  |
| 10/1/2008           | 30                                       | 4,046,900     | 16        | 4,650,128     | 397,020      |  |  |
| 10/1/2009           | 30                                       | 3,681,910     | 17        | 4,240,740     | 347,479      |  |  |
| 10/1/2010           | 30                                       | 1,249,043     | 18        | 1,438,226     | 113,473      |  |  |
| 10/1/2010           | 30                                       | 2,256,012     | 18        | 2,597,715     | 204,953      |  |  |
| 10/1/2010           | 30                                       | (43,572)      | 18        | (50,171)      | (3,958)      |  |  |
| 10/1/2011           | 30                                       | 1,378,822     | 19        | 1,571,823     | 119,761      |  |  |
| 10/1/2011           | 30                                       | 3,739,943     | 19        | 4,263,450     | 324,844      |  |  |
| 10/1/2012           | 30                                       | 1,446,560     | 20        | 1,604,699     | 118,384      |  |  |
| 10/1/2012           | 30                                       | (161,237)     | 20        | (178,863)     | (13,195)     |  |  |
| 10/1/2013           | 30                                       | 199,486       | 21        | 220,355       | 15,777       |  |  |
| 10/1/2013           | 30                                       | 818,309       | 21        | 903,911       | 64,719       |  |  |
| 10/1/2013           | 30                                       | 3,401,164     | 21        | 3,756,953     | 268,992      |  |  |
| 10/1/2014           | 30                                       | (408,227)     | 21        | (441,474)     | (31,609)     |  |  |
| 10/1/2014           | 30                                       | 1,753,497     | 21        | 1,896,307     | 135,773      |  |  |
| 10/1/2015           | 30                                       | (209,489)     | 21        | (221,779)     | (15,879)     |  |  |
| 10/1/2016           | 30                                       | (1,022,696)   | 21        | (1,060,696)   | (75,944)     |  |  |
| 10/1/2016           | 30                                       | 5,982,170     | 21        | 6,204,439     | 444,228      |  |  |
| 10/1/2017           | 30                                       | (691,612)     | 21        | (698,375)     | (50,003)     |  |  |
| 10/1/2018           | 30                                       | (2,764,199)   | 21        | (2,758,579)   | (197,510)    |  |  |
| 10/1/2018           | 30                                       | (1,216,631)   | 21        | (1,214,158)   | (86,932)     |  |  |
| 10/1/2019           | 25                                       | 2,636,284     | 22        | 2,663,505     | 185,472      |  |  |
| 10/1/2019           | 25                                       | 523,444       | 22        | 528,848       | 36,826       |  |  |
| 10/1/2020           | 25                                       | (3,706,058)   | 23        | (3,721,063)   | (252,490)    |  |  |
| 10/1/2020           | 25                                       | 603,911       | 23        | 606,355       | 41,144       |  |  |
| 10/1/2021           | 25                                       | (4,446,752)   | 24        | (4,450,480)   | (294,775)    |  |  |
| 10/1/2021           | 25                                       | 3,798,579     | 24        | 3,801,764     | 251,807      |  |  |
| 10/1/2021           | 25                                       | (1,137,446)   | 24        | (1,138,400)   | (75,401)     |  |  |
| 10/1/2022           | 25                                       | 3,621,631     | 25        | 3,621,631     | 234,521      |  |  |
|                     |  | \$ 40,387,741 |           | \$ 44,296,197 | \$ 3,931,151 |  |  |



#### B. Amortization Schedule

The UAAL is being amortized as a level percent of payroll over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

| Amortization Schedule |               |  |  |  |  |
|-----------------------|---------------|--|--|--|--|
| Year                  | Expected UAAL |  |  |  |  |
| 2022                  | \$ 44,296,197 |  |  |  |  |
| 2023                  | 43,251,159    |  |  |  |  |
| 2024                  | 42,026,087    |  |  |  |  |
| 2025                  | 40,605,478    |  |  |  |  |
| 2026                  | 38,972,660    |  |  |  |  |
| 2027                  | 37,109,696    |  |  |  |  |
| 2032                  | 24,814,245    |  |  |  |  |
| 2037                  | 11,034,472    |  |  |  |  |
| 2042                  | 1,525,970     |  |  |  |  |
| 2047                  | -             |  |  |  |  |



# **ACTUARIAL GAINS AND LOSSES**

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long-term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified. The net actuarial gain (loss) for the past year is computed as follows:

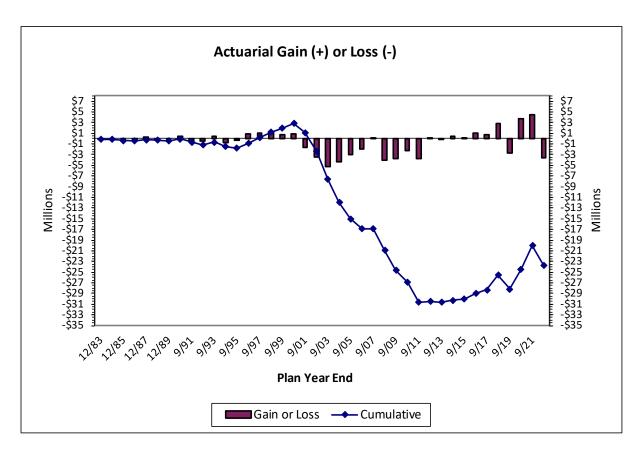
| A. Derivation of the Current UAAL       |    |             |  |  |  |  |
|---|----|-------------|--|--|--|--|
| 1. Last Year's UAAL                     | \$ | 41,639,989  |  |  |  |  |
| 2. Last Year's Employer Normal Cost     |    | 2,871,697   |  |  |  |  |
| 3. Last Year's Contributions            |    | 6,613,664   |  |  |  |  |
| 4. Interest at the Assumed Rate on:     |    |             |  |  |  |  |
| a. 1 and 2 for one year                 |    | 3,182,586   |  |  |  |  |
| b. 3 from dates paid                    | _  | 406,042     |  |  |  |  |
| c. a-b                                  |    | 2,776,544   |  |  |  |  |
| 5. This Year's Expected UAAL:           |    |             |  |  |  |  |
| 1 + 2 - 3 + 4c                          |    | 40,674,566  |  |  |  |  |
| 6. This Year's Actual UAAL (Before any  |    |             |  |  |  |  |
| changes in benefits and/or assumptions) |    | 44,296,197  |  |  |  |  |
| 7. Net Actuarial Gain (Loss): (5) - (6) |    | (3,621,631) |  |  |  |  |
| 8. Gain (Loss) due to investments       |    | (2,879,851) |  |  |  |  |
| 9. Gain (Loss) due to other sources     |    | (741,780)   |  |  |  |  |

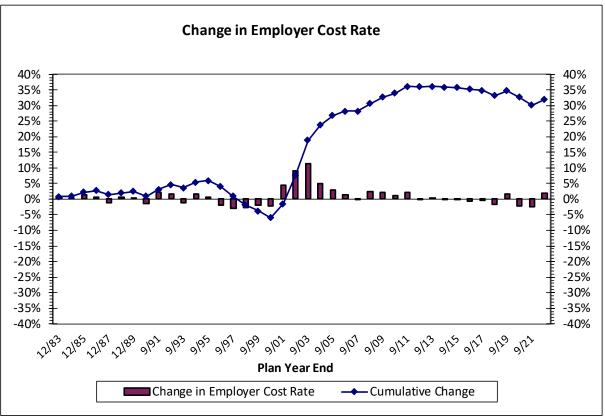


Net actuarial gains in previous years have been as follows:

|            | Change in Employer |              |
|------------|--------------------|--------------|
| Year Ended | Cost Rate          | Gain (Loss)  |
| 12/31/83   | 0.77 %             | \$ (111,129) |
| 12/31/84   | 0.13               | (20,619)     |
| 12/31/85   | 1.27               | (227,011)    |
| 12/31/86   | 0.50               | (99,006)     |
| 12/31/87   | (1.18)             | 279,837      |
| 12/31/88   | 0.52               | (128,401)    |
| 12/31/89   | 0.41               | (106,588)    |
| 9/30/90    | (1.42)             | 371,790      |
| 9/30/91    | 2.09               | (638,650)    |
| 9/30/92    | 1.61               | (476,505)    |
| 9/30/93    | (1.07)             | 483,965      |
| 9/30/94    | 1.76               | (800,443)    |
| 9/30/95    | 0.56               | (270,698)    |
| 9/30/96    | (1.95)             | 895,789      |
| 9/30/97    | (3.08)             | 1,049,747    |
| 9/30/98    | (2.78)             | 1,020,121    |
| 9/30/99    | (1.89)             | 722,161      |
| 9/30/00    | (2.21)             | 891,463      |
| 9/30/01    | 4.44               | (1,682,484)  |
| 9/30/02    | 9.11               | (3,495,525)  |
| 9/30/03    | 11.31              | (5,238,993)  |
| 9/30/04    | 4.88               | (4,373,725)  |
| 9/30/05    | 3.04               | (3,040,117)  |
| 9/30/06    | 1.44               | (1,889,229)  |
| 9/30/07    | (0.01)             | 12,675       |
| 9/30/08    | 2.33               | (4,056,993)  |
| 9/30/09    | 2.16               | (3,681,910)  |
| 9/30/10    | 1.25               | (2,256,012)  |
| 9/30/11    | 2.12               | (3,739,943)  |
| 9/30/12    | (0.09)             | 161,237      |
| 9/30/13    | 0.12               | (199,486)    |
| 9/30/14    | (0.22)             | 408,227      |
| 9/30/15    | (0.11)             | 209,489      |
| 9/30/16    | (0.57)             | 1,022,696    |
| 9/30/17    | (0.37)             | 691,612      |
| 9/30/18    | (1.62)             | 2,764,199    |
| 9/30/19    | 1.53               | (2,636,284)  |
| 9/30/20    | (2.14)             | 3,706,058    |
| 9/30/21    | (2.50)             | 4,446,752    |
| 9/30/22    | 1.82               | (3,621,631)  |







City of Boynton Beach Municipal Firefighters' Pension Trust Fund -17-Actuarial Valuation Report as of October 1, 2022

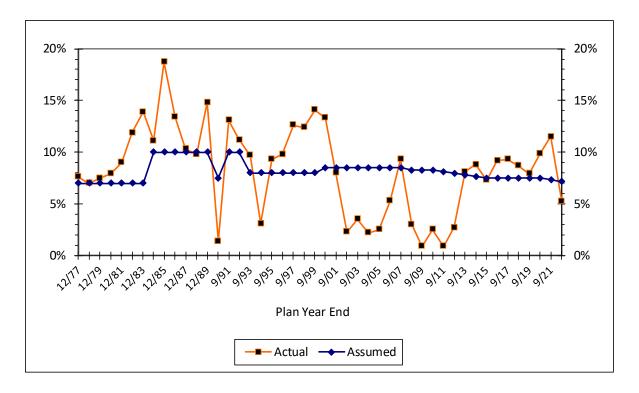


The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

|  | Investme                             | nt Return                                    | Salary I                             | ncreases  |
|--|--------------------------------------|--|--------------------------------------|---|
| Year Ending  | Actual                               | Assumed                                      | Actual                               | Assumed   |
| 12/31/1977<br>12/31/1978<br>12/31/1979<br>12/31/1980<br>12/31/1981               | 7.6 %<br>7.0<br>7.5<br>7.9<br>9.0    | 7.0 %<br>7.0<br>7.0<br>7.0<br>7.0<br>7.0     | 21.3 %<br>19.0<br>30.5               | 10.3 %<br>(2 years)<br>10.3<br>(2 years)<br>7.0 |
| 12/31/1982<br>12/31/1983<br>12/31/1984<br>12/31/1985<br>12/31/1985<br>12/31/1986 | 11.9<br>13.9<br>11.1<br>18.7<br>13.4 | 7.0<br>7.0<br>10.0<br>10.0<br>10.0           | 11.0<br>6.4<br>8.8<br>14.5<br>11.4   | 7.0<br>7.0<br>10.0<br>10.0<br>10.0              |
| 12/31/1987<br>12/31/1988<br>12/31/1989<br>9/30/1990 (9 mos.)<br>9/30/1991        | 10.3<br>9.8<br>14.8<br>1.4<br>13.1   | 10.0<br>10.0<br>10.0<br>7.5<br>10.0          | 19.7<br>6.1<br>12.8<br>6.7<br>8.0    | 10.0<br>10.0<br>10.0<br>7.5<br>10.0             |
| 9/30/1992<br>9/30/1993<br>9/30/1994<br>9/30/1995<br>9/30/1996                    | 11.2<br>9.7<br>3.1<br>9.3<br>9.8     | 10.0<br>8.0<br>8.0<br>8.0<br>8.0<br>8.0      | 4.9<br>4.0<br>2.0<br>10.3<br>(0.2)   | 10.0<br>6.5<br>6.5<br>6.5<br>6.5                |
| 9/30/1997<br>9/30/1998<br>9/30/1999<br>9/30/2000<br>9/30/2001                    | 12.6<br>12.4<br>14.1<br>13.3<br>8.0  | 8.0<br>8.0<br>8.5<br>8.5                     | 5.9<br>6.1<br>13.3<br>10.3<br>4.8    | 6.5<br>6.5<br>6.5<br>6.5<br>6.5                 |
| 9/30/2002<br>9/30/2003<br>9/30/2004<br>9/30/2005<br>9/30/2006                    | 2.3<br>3.5<br>2.2<br>2.5<br>5.3      | 8.5<br>8.5<br>8.5<br>8.5<br>8.5              | 12.1<br>10.0<br>11.0<br>11.7<br>13.3 | 6.5<br>6.5<br>6.5<br>6.5<br>9.2                 |
| 9/30/2007<br>9/30/2008<br>9/30/2009<br>9/30/2010<br>9/30/2011                    | 9.3<br>3.0<br>0.9<br>2.5<br>0.9      | 8.50<br>8.25<br>8.25<br>8.25<br>8.25<br>8.10 | 9.2<br>13.6<br>7.6<br>1.8<br>3.7     | 8.9<br>8.9<br>8.9<br>8.9<br>8.1                 |
| 9/30/2012<br>9/30/2013<br>9/30/2014<br>9/30/2015<br>9/30/2016                    | 2.7<br>8.1<br>8.8<br>7.3<br>9.2      | 7.95<br>7.80<br>7.65<br>7.50<br>7.50         | (2.8)<br>1.9<br>7.2<br>4.9<br>6.3    | 7.1<br>8.7<br>6.0<br>6.2<br>5.9                 |
| 9/30/2017<br>9/30/2018<br>9/30/2019<br>9/30/2020<br>9/30/2021                    | 9.3<br>8.7<br>7.9<br>9.9<br>11.5     | 7.50<br>7.50<br>7.50<br>7.50<br>7.35         | 8.4<br>4.2<br>14.9<br>2.5<br>9.2     | 6.3<br>6.1<br>6.7<br>7.1<br>6.9                 |
| 9/30/2022<br>Averages  | 5.2<br>8.3 %                         | 7.15   | 10.0<br>8.5 %                        | 7.5   |

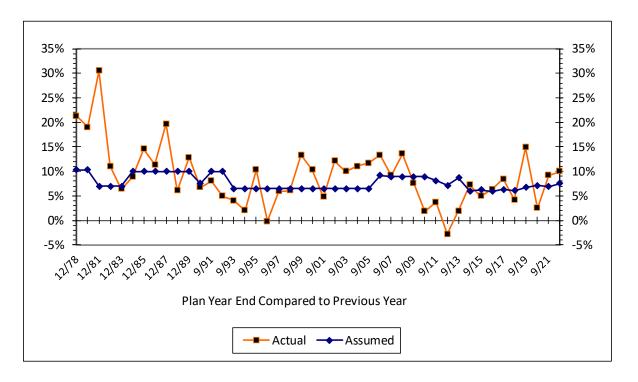
The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.





# History of Investment Return Based on Actuarial Value of Assets

# **History of Salary Increases**





City of Boynton Beach Municipal Firefighters' Pension Trust Fund -19-Actuarial Valuation Report as of October 1, 2022

|  | Actual (A) Compared to Expected (E) Decrements<br>Among Active Employees |                  |                       |                  |                  |                 |             |                  |                  |                  |                  |                  |                             |
|--|--|------------------|-----------------------|------------------|------------------|-----------------|-------------|------------------|------------------|------------------|------------------|------------------|-----------------------------|
| Year   | Ade  | ring             | Servi<br>DR<br>Retire |                  |                  | bility<br>ement | Dea         | ath              | Vested           | Termina<br>Other |                  | tals             | Active<br>Members<br>End of |
| Ended  | Α  | E                | Α                     | E                | Α                | E               | Α           | Е                | Α                | Α                | Α                | E                | Year                        |
| 9/30/2002<br>9/30/2003                           | 1<br>15  | 10<br>1          | 6<br>1                | 5<br>5           | 0<br>0           | 0<br>0          | 0<br>0      | 0<br>0           | 1<br>0           | 3<br>0           | 4<br>0           | 3<br>3           | 83<br>97                    |
| 9/30/2004<br>9/30/2005<br>9/30/2006              | 22<br>1<br>19  | 14<br>4<br>3     | 13<br>2<br>0          | 4<br>1<br>2      | 0<br>0<br>0      | 0<br>0<br>0     | 0<br>0<br>0 | 0<br>0<br>0      | 0<br>0<br>1      | 1<br>2<br>2      | 1<br>2<br>3      | 3<br>4<br>4      | 105<br>102<br>118           |
| 9/30/2007<br>9/30/2008<br>9/30/2009              | 5<br>5<br>1  | 4<br>1<br>6      | 1<br>0<br>5           | 3<br>5<br>6      | 0<br>1<br>0      | 0<br>0<br>0     | 0<br>0<br>0 | 0<br>0<br>0      | 0<br>0<br>0      | 3<br>0<br>1      | 3<br>0<br>1      | 4<br>4<br>4      | 119<br>123<br>118           |
| 9/30/2010<br>9/30/2011                           | 11<br>0  | 4<br>11          | 3<br>10               | 3<br>8           | 0<br>0           | 0<br>0          | 0<br>0      | 0<br>0           | 01               | 1<br>0           | 1<br>1           | 4                | 125<br>114                  |
| 9/30/2012<br>9/30/2013<br>9/30/2014<br>9/30/2015 | 3<br>10<br>3<br>1  | 2<br>7<br>2<br>2 | 1<br>6<br>0<br>1      | 2<br>2<br>1<br>1 | 0<br>0<br>0<br>0 | 0<br>0<br>0     | 0<br>0<br>0 | 0<br>0<br>0<br>0 | 1<br>0<br>0<br>1 | 0<br>1<br>2<br>0 | 1<br>1<br>2<br>1 | 4<br>4<br>2<br>2 | 115<br>118<br>119<br>118    |
| 9/30/2016<br>9/30/2017                           | 11<br>10   | 7<br>8           | 4                     | 1                | 1<br>0           | 0               | 0           | 0                | 1                | 1<br>3           | 2                | 2                | 122                         |
| 9/30/2018<br>9/30/2019<br>9/30/2020              | 1<br>8<br>14   | 12<br>6<br>10    | 10<br>5<br>2          | 4<br>2<br>1      | 0<br>0<br>2      | 0<br>0<br>0     | 0<br>0<br>1 | 0<br>0<br>0      | 0<br>0<br>1      | 2<br>1<br>4      | 2<br>1<br>5      | 2<br>2<br>2      | 113<br>115<br>119           |
| 9/30/2020<br>9/30/2021<br>9/30/2022              | 14<br>0<br>9   | 8<br>3           | 2<br>6<br>2           | 1<br>5<br>3      | 2<br>0<br>0      | 0<br>0          | 1<br>0<br>0 | 0                | 0                | 4<br>2<br>1      | 2<br>1           | 2 2 2            | 119<br>111<br>117           |
| 9/30/2023<br>21 Yr Totals *                      | 150  | 125              | 82                    | 9<br>66          | 4                | 0               | 1           | 0                | 8                | 30               | 38               | 2<br>63          |                             |

\* Totals are through current Plan Year only.



# **Cumulative Actuarial Gains (Losses)**

The Plan provides for a 13<sup>th</sup> check if there is a net actuarial gain for the previous year. However, there is a limitation on 13<sup>th</sup> checks tied to actuarial gains provided in Chapter 112.61, Florida Statutes. The cumulative amount used to pay for 13<sup>th</sup> checks may not exceed the cumulative amount of actuarial gains. Although there was an actuarial gain during the prior plan year, the cumulative amount of gains is negative (a net loss), so no 13<sup>th</sup> check is payable.

|  | Cumulative Actuarial Gains (Losses)   |   |   |  |  |  |
|--|---|---|---|--|--|--|
| Year Ending<br>9/30  | Balance at<br>Beginning<br>of Year  | Gain (Loss)<br>for Year   | 13th Check  | Balance at<br>End of Year  |  |  |
| 2001<br>2002<br>2003<br>2004<br>2005<br>2006<br>2007<br>2008<br>2009<br>2010<br>2011<br>2012<br>2013<br>2014<br>2015<br>2016 | 0<br>(1,682,484)<br>(5,178,009)<br>(10,417,002)<br>(14,790,727)<br>(17,830,844)<br>(19,720,073)<br>(19,707,398)<br>(23,764,391)<br>(27,446,301)<br>(29,702,313)<br>(33,442,256)<br>(33,281,019)<br>(33,480,505)<br>(33,072,278)<br>(32,862,789) | (1,682,484)<br>(3,495,525)<br>(5,238,993)<br>(4,373,725)<br>(3,040,117)<br>(1,889,229)<br>12,675<br>(4,056,993)<br>(3,681,910)<br>(2,256,012)<br>(3,739,943)<br>161,237<br>(199,486)<br>408,227<br>209,489<br>1,022,696 | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | (1,682,484)<br>(5,178,009)<br>(10,417,002)<br>(14,790,727)<br>(17,830,844)<br>(19,720,073)<br>(19,707,398)<br>(23,764,391)<br>(27,446,301)<br>(29,702,313)<br>(33,442,256)<br>(33,281,019)<br>(33,480,505)<br>(33,072,278)<br>(32,862,789)<br>(31,840,093) |  |  |
| 2017<br>2018<br>2019<br>2020   | (31,840,093)<br>(31,148,481)<br>(28,384,282)<br>(31,020,566)  | 691,612<br>2,764,199<br>(2,636,284)<br>3,706,058  | 0<br>0<br>0   | (31,148,481)<br>(28,384,282)<br>(31,020,566)<br>(27,314,508)   |  |  |
| 2021<br>2022   | (27,314,508)<br>(22,867,756)  | 4,446,752<br>(3,621,631)  | 0<br>0  | (22,867,756)<br>(26,489,387)   |  |  |



| RECENT HISTORY OF VALUATION RESULTS |           |          |                |                    |                   |              |              |            |              |
|-------------------------------------|-----------|----------|----------------|--------------------|-------------------|--------------|--------------|------------|--------------|
|                                     | Number of |          |                |                    |                   |              |              | Employer N | ormal Cost   |
| Valuation                           | Active    | Inactive | Covered Annual | Actuarial Value of | Actuarial Accrued | Unfunded AAL |              |            |              |
| Date                                | Members   | Members  | Payroll        | Assets             | Liability (AAL)   | (UFAAL)      | Funded Ratio | Amount     | % of Payroll |
| 10/1/96                             | 90        | 22       | \$ 4,695,354   | \$ 19,269,217      | \$ 20,604,396     | \$ 1,335,179 | 93.5 %       | \$ 527,257 | 11.23 %      |
| 10/1/97                             | 88        | 39       | 4,238,988      | 22,220,848         | 23,723,850        | 1,503,002    | 93.7         | 361,957    | 8.54         |
| 10/1/98                             | 90        | 39       | 4,543,670      | 24,978,058         | 25,301,177        | 323,119      | 98.7         | 258,961    | 5.70         |
| 10/1/99                             | 92        | 40       | 5,083,063      | 28,290,983         | 28,286,754        | (4,229)      | 100.0        | 217,814    | 4.29         |
| 10/1/00                             | 90        | 46       | 5,305,002      | 31,629,211         | 29,402,853        | (2,226,358)  | 107.6        | 72,822     | 1.37         |
| 10/1/01                             | 92        | 53       | 5,201,958      | 33,397,848         | 34,916,820        | 1,518,972    | 95.6         | 475,187    | 9.13         |
| 10/1/02                             | 83        | 60       | 5,143,446      | 33,877,028         | 39,432,154        | 5,555,126    | 85.9         | 956,733    | 18.60        |
| 10/1/03                             | 97        | 60       | 6,079,095      | 34,694,072         | 42,431,717        | 7,737,645    | 81.8         | 979,363    | 16.11        |
| 10/1/04                             | 105       | 73       | 6,135,813      | 35,118,847         | 47,240,329        | 12,121,482   | 74.3         | 995,918    | 16.23        |
| 10/1/05                             | 102       | 75       | 6,763,318      | 35,386,328         | 49,620,257        | 14,233,929   | 71.3         | 1,186,288  | 17.54        |
| 10/1/06                             | 118       | 75       | 8,152,400      | 36,863,141         | 55,565,182        | 18,702,041   | 66.3         | 1,256,931  | 15.42        |
| 10/1/07                             | 119       | 76       | 8,806,744      | 43,503,237         | 61,054,498        | 17,551,261   | 71.3         | 1,490,649  | 16.93        |
| 10/1/08                             | 123       | 77       | 10,130,185     | 45,330,615         | 67,141,898        | 21,811,283   | 67.5         | 1,711,705  | 16.90        |
| 10/1/09                             | 118       | 82       | 10,350,054     | 46,448,767         | 72,211,379        | 25,762,612   | 64.3         | 1,724,525  | 16.66        |
| 10/1/10                             | 125       | 84       | 10,506,008     | 48,521,964         | 78,046,241        | 29,524,277   | 62.2         | 1,831,347  | 17.43        |
| 10/1/11                             | 114       | 93       | 9,781,772      | 49,140,415         | 84,384,761        | 35,244,346   | 58.2         | 1,793,275  | 18.33        |
| 10/1/12                             | 115       | 94       | 9,375,520      | 50,548,749         | 88,420,130        | 37,871,381   | 57.2         | 1,787,181  | 19.06        |
| 10/1/13                             | 118       | 100      | 9,128,801      | 55,474,480         | 98,003,969        | 42,529,489   | 56.6         | 1,772,505  | 19.42        |
| 10/1/14                             | 119       | 99       | 9,823,480      | 60,766,720         | 105,309,014       | 44,542,294   | 57.7         | 2,014,298  | 20.50        |
| 10/1/15                             | 118       | 101      | 10,221,317     | 66,257,757         | 110,826,525       | 44,568,768   | 59.8         | 2,105,539  | 20.60        |
| 10/1/16                             | 122       | 107      | 10,684,549     | 74,236,519         | 123,821,633       | 49,585,114   | 60.0         | 2,394,174  | 22.41        |
| 10/1/17                             | 124       | 112      | 11,282,228     | 82,643,710         | 132,091,634       | 49,447,924   | 62.6         | 2,519,728  | 22.33        |
| 10/1/18                             | 113       | 121      | 10,393,865     | 91,627,599         | 136,944,352       | 45,316,753   | 66.9         | 2,230,990  | 21.46        |
| 10/1/19                             | 115       | 124      | 11,504,436     | 99,976,001         | 147,354,005       | 47,378,004   | 67.8         | 2,426,234  | 21.09        |
| 10/1/20                             | 119       | 129      | 11,598,751     | 110,401,014        | 154,416,171       | 44,015,157   | 71.5         | 2,774,279  | 23.92        |
| 10/1/21                             | 111       | 135      | 11,710,333     | 124,219,104        | 165,859,093       | 41,639,989   | 74.9         | 2,871,697  | 24.52        |
| 10/1/22                             | 117       | 135      | 12,910,978     | 130,237,341        | 174,533,538       | 44,296,197   | 74.6         | 3,058,824  | 23.69        |



| RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS |                      |            |                        |             |                 |            |                 |            |                  |            |
|---|----------------------|------------|------------------------|-------------|-----------------|------------|-----------------|------------|------------------|------------|
|   | End of               |            | Required Contributions |             |                 |            |                 |            |                  |            |
| Valuation   | Year To<br>Which     | Employer & | & State                | Estimated S | State           | Net Emp    | oloyer          | ŀ          | Actual Contribut | ions       |
| valuation   | Valuation<br>Applies | Amount     | % of<br>Payroll        | Amount      | % of<br>Payroll | Amount     | % of<br>Payroll | Employer   | State            | Total      |
| 10/1/96   | 9/30/97              | \$ 776,723 | 16.54 %                | \$ 285,443  | 6.08 %          | \$ 491,280 | 10.46 %         | \$ 422,898 | \$ 353,826       | \$ 776,724 |
| 10/1/97   | 9/30/98              | 710,387    | 16.76                  | 349,086     | 8.24            | 361,301    | 8.52            | 349,375    | 361,012          | 710,387    |
| 10/1/98   | 9/30/99              | 597,198    | 13.14                  | 351,241     | 7.73            | 245,957    | 5.41            | 245,957    | 361,012          | 606,969    |
| 10/1/99   | 9/30/00              | 512,235    | 10.08                  | 351,241     | 6.91            | 160,994    | 3.17            | 80,559     | 365,934          | 446,493    |
| 10/1/00   | 9/30/01              | 292,146    | 5.51                   | 365,934     | 6.90            | 0          | 0.00            | 0          | 365,715          | 365,715    |
| 10/1/01   | 9/30/02              | 825,167    | 15.86                  | 384,640     | 7.39            | 440,527    | 8.47            | 361,877    | 463,290          | 825,167    |
| 10/1/02   | 9/30/03              | 1,359,690  | 26.44                  | 463,290     | 9.01            | 896,400    | 17.43           | 922,724    | 499,520          | 1,422,244  |
| 10/1/03   | 9/30/04              | 1,655,219  | 27.23                  | 499,520     | 8.22            | 1,155,699  | 19.01           | 1,155,699  | 549,804          | 1,705,503  |
| 10/1/04   | 9/30/05              | 1,988,852  | 32.41                  | 549,804     | 8.96            | 1,439,048  | 23.45           | 1,439,048  | 589,543          | 2,028,591  |
| 10/1/05   | 9/30/06              | 2,339,568  | 34.59                  | 589,543     | 8.72            | 1,750,025  | 25.87           | 1,750,025  | 589,543          | 2,339,568  |
| 10/1/06   | 9/30/07              | 2,664,373  | 32.68                  | 589,543     | 7.23            | 2,074,830  | 25.45           | 2,074,830  | 589,543          | 2,664,373  |
| 10/1/07   | 9/30/08              | 2,845,292  | 32.31                  | 589,543     | 6.70            | 2,255,749  | 25.61           | 2,255,749  | 589,543          | 2,845,292  |
| 10/1/08   | 9/30/09              | 3,380,771  | 33.37                  | 579,772     | 5.73            | 2,800,384  | 27.64           | 2,800,384  | 579,772          | 3,380,156  |
| 10/1/09   | 9/30/10              | 3,678,119  | 35.54                  | 589,543     | 5.60            | 3,088,576  | 29.94           | 3,098,347  | 633,115          | 3,731,462  |
| 10/1/09   | 9/30/11              | 3,606,278  | 34.04                  | 633,115     | 5.98            | 2,973,163  | 28.06           | 3,026,506  | 623,344          | 3,649,850  |
| 10/1/10   | 9/30/12              | 3,771,466  | 35.16                  | 623,344     | 5.81            | 3,148,122  | 29.35           | 3,148,122  | 623,344          | 3,771,466  |
| 10/1/11   | 9/30/13              | 4,272,215  | 40.87                  | 704,322     | 6.74            | 3,567,893  | 34.13           | 3,648,871  | 704,322          | 4,353,193  |
| 10/1/12   | 9/30/14              | 4,226,469  | 44.58                  | 704,322     | 7.43            | 3,522,147  | 37.15           | 3,522,147  | 704,322          | 4,226,469  |
| 10/1/13   | 9/30/15              | 4,635,318  | 48.78                  | 704,322     | 7.41            | 3,930,996  | 41.37           | 3,930,996  | 704,322          | 4,635,318  |
| 10/1/14   | 9/30/16              | 4,856,683  | 49.44                  | 781,954     | 7.96            | 4,074,729  | 41.48           | 4,117,788  | 781,954          | 4,899,742  |
| 10/1/15   | 9/30/17              | 5,075,517  | 49.10                  | 781,954     | 7.56            | 4,293,563  | 41.54           | 4,293,563  | 781,954          | 5,075,517  |
| 10/1/16   | 9/30/18              | 6,157,171  | 56.09                  | 781,954     | 7.12            | 5,375,217  | 48.97           | 5,375,217  | 781,954          | 6,157,171  |
| 10/1/17   | 9/30/19              | 6,409,551  | 55.42                  | 1,062,385 * | 9.19            | 5,347,166  | 46.23           | 5,347,166  | 1,062,385        | 6,409,551  |
| 10/1/18   | 9/30/20              | 5,969,275  | 56.03                  | 1,062,385 * | 9.97            | 4,906,890  | 46.06           | 4,906,890  | 1,062,385        | 5,969,275  |
| 10/1/19   | 9/30/21              | 6,400,723  | 54.28                  | 1,062,385 * | 9.01            | 5,338,338  | 45.27           | 5,338,338  | 1,062,385        | 6,400,723  |
| 10/1/20   | 9/30/22              | 6,607,751  | 55.58                  | 1,068,298 * | 8.99            | 5,539,453  | 46.59           | 5,545,366  | 1,068,298        | 6,613,664  |
| 10/1/21   | 9/30/23              | 6,647,312  | 55.38                  | 943,466 *   | 7.86            | 5,703,846  | 47.52           | N/A        | N/A              | N/A        |
| 10/1/22   | 9/30/24              | 7,164,753  | 54.14                  | 943,466 *   | 7.13            | 6,221,287  | 47.01           | N/A        | N/A              | N/A        |

\*Including amount allocated from Accumulated Excess State Contribution Reserve.



# **ACTUARIAL ASSUMPTIONS AND COST METHOD**

**Actuarial Cost Method** - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

*Financing of Unfunded Actuarial Accrued Liabilities* - Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) percent-of-payroll contributions over a reasonable period of future years.

Actuarial Value of Assets - The Actuarial Value of Assets phases in the difference between the actual and expected investment earnings over a period of 5 years. The Actuarial Value of Assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the Market Value of plan assets and whose upper limit is 120% of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

# **Valuation Assumptions**

The actuarial assumptions used in the valuation are shown in this Section.

# **Economic Assumptions**

*The investment return rate* assumed in the valuation is 7.15% per year, compounded annually (net after investment expenses).

The **Wage Inflation Rate** assumed in this valuation is 3.25% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects.

The **Price Inflation Rate** assumed in this valuation is 2.25% per year.

The assumed **real rate of return** over price inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 7.15% investment return rate translates to an assumed real rate of return over price inflation of 4.90%.



The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at 2.50% per year.

**Pay increase assumptions** for individual active members are shown below. Part of the assumption for each age is for merit and/or seniority increase, and the other 3.25% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

*The rates of salary increase* used for individual members are in accordance with the following table below and are based on the Experience Study dated October 29, 2020. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

|          | % Increase in Salary |           |                |  |  |
|----------|----------------------|-----------|----------------|--|--|
| Years of | Merit and            | Wage      |                |  |  |
| Service  | Seniority            | Inflation | Total Increase |  |  |
| 1 - 2    | 11.75%               | 3.25%     | 15.00%         |  |  |
| 3 - 5    | 6.75%                | 3.25%     | 10.00%         |  |  |
| 6 - 8    | 2.25%                | 3.25%     | 5.50%          |  |  |
| 9 - 11   | 1.25%                | 3.25%     | 4.50%          |  |  |
| 12 - 14  | 2.75%                | 3.25%     | 6.00%          |  |  |
| 15 - 16  | 3.50%                | 3.25%     | 6.75%          |  |  |
| 17 - 20  | 5.00%                | 3.25%     | 8.25%          |  |  |
| 21+      | 0.00%                | 3.25%     | 3.25%          |  |  |

# **Demographic Assumptions**

**The mortality table** is the PUB-2010 Headcount Weighted Safety Healthy Employee Mortality Table (for preretirement mortality) and the PUB-2010 Headcount Weighted Safety Healthy Retiree Mortality Table (for postretirement mortality), with separate rates for males and females and ages set forward one year, with mortality improvements projected to all future years after 2010 using Scale MP-2018. For males, the base mortality rates for both pre-retirement and postretirement mortality are based on the Below Median Healthy tables. These are the same rates currently in use for Special Risk class members of the Florida Retirement System (FRS), as mandated by Chapter 112.63, Florida Statutes.

#### FRS Healthy Post-Retirement Mortality for Special Risk Class Members

| Sample         | Probabil | ity of  | Future Life |            |  |
|----------------|----------|---------|-------------|------------|--|
| Attained       | Dying Ne | xt Year | Expectanc   | cy (years) |  |
| Ages (in 2022) | Men      | Women   | Men         | Women      |  |
| 50             | 0.42 %   | 0.20 %  | 32.59       | 36.43      |  |
| 55             | 0.55     | 0.36    | 27.82       | 31.39      |  |
| 60             | 0.92     | 0.60    | 23.23       | 26.59      |  |
| 65             | 1.31     | 0.92    | 18.95       | 22.07      |  |
| 70             | 2.08     | 1.44    | 14.93       | 17.81      |  |
| 75             | 3.51     | 2.40    | 11.32       | 13.88      |  |
| 80             | 6.24     | 4.12    | 8.24        | 10.41      |  |

This assumption is used to measure the probabilities of each benefit payment being made after retirement.



| Sample         | Probabil | ity of  | Future    | Life      |
|----------------|----------|---------|-----------|-----------|
| Attained       | Dying Ne | xt Year | Expectanc | y (years) |
| Ages (in 2022) | Men      | Women   | Men       | Women     |
| 50             | 0.16 %   | 0.10 %  | 35.74     | 39.66     |
| 55             | 0.25     | 0.16    | 30.66     | 34.51     |
| 60             | 0.42     | 0.22    | 25.70     | 29.44     |
| 65             | 0.69     | 0.30    | 20.93     | 24.42     |
| 70             | 1.17     | 0.54    | 16.40     | 19.51     |
| 75             | 2.06     | 1.06    | 12.16     | 14.81     |
| 80             | 6.24     | 4.12    | 8.24      | 10.41     |
|                |          |         |           |           |

#### FRS Healthy Pre-Retirement Mortality for Special Risk Class Members

This assumption is used to measure the probabilities of active members dying prior to retirement.

For disabled retirees, the mortality table is the 80% of the PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, and 20% of the PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, both with separate rates for males and females, with no provision being made for future mortality improvements. These are the same rates currently in use for Special Risk class members of the Florida Retirement System (FRS), as mandated by Chapter 112.63, Florida Statutes.

| Sample<br>Attained | Probabil<br>Dying Ne | •      | Future Life<br>Expectancy (years) |       |  |
|--------------------|----------------------|--------|-----------------------------------|-------|--|
| Ages (in 2022)     | Men                  | Women  | Men                               | Women |  |
| 50                 | 1.45 %               | 1.25 % | 24.04                             | 26.84 |  |
| 55                 | 1.91                 | 1.50   | 20.88                             | 23.54 |  |
| 60                 | 2.37                 | 1.81   | 17.92                             | 20.32 |  |
| 65                 | 3.00                 | 2.22   | 15.07                             | 17.17 |  |
| 70                 | 3.91                 | 2.90   | 12.39                             | 14.10 |  |
| 75                 | 5.30                 | 4.13   | 9.87                              | 11.22 |  |
| 80                 | 7.66                 | 6.21   | 7.60                              | 8.67  |  |

#### FRS Disabled Mortality for Special Risk Class Members

*The rates of retirement* used to measure the probability of eligible members retiring during the next year were as follows and are based on the Experience Study dated October 29, 2020.

|   | Retirement Rates |        |         |        |         |        |
|---|------------------|--------|---------|--------|---------|--------|
| S |                  |        | A       | ge     |         |        |
| е |                  | <50    | 50 - 54 | 55     | 56 - 59 | 60+    |
| r | 10 - 19          | N/A    | 5.0%    | 80.0%  | 80.0%   | 100.0% |
| v | 20 - 21          | 60.0%  | 90.0%   | 100.0% | 100.0%  | 100.0% |
| i | 22 - 24          | 80.0%  | 90.0%   | 100.0% | 100.0%  | 100.0% |
| С | 25+              | 100.0% | 100.0%  | 100.0% | 100.0%  | 100.0% |
| е |                  |        |         |        |         |        |



**Rates of separation from active membership** were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability) and are based on the Experience Study dated October 29, 2020. This assumption measures the probabilities of members remaining in employment.

| Sample<br>Ages | % of Active Members<br>Separating Within Next Year |
|----------------|--|
| 20             | 5.0 %  |
| 25             | 5.0  |
| 30             | 3.0  |
| 35             | 1.0  |
| 40             | 1.0  |
| 45             | 2.0  |
| 50             | 2.0  |
| 55             | 0.0  |

Rates of disability among active members (85% of disabilities are assumed to be service-connected).

| Sample | % Becoming Disabled |
|--------|---------------------|
| Ages   | within Next Year    |
| 20     | 0.09 %              |
| 25     | 0.10                |
| 30     | 0.12                |
| 35     | 0.15                |
| 40     | 0.20                |
| 45     | 0.34                |
| 50     | 0.67                |
| 55     | 1.03                |



# **Miscellaneous and Technical Assumptions**

| Administrative & Investment<br>Expenses | The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the average of the prior two years' expenses. Assumed administrative expenses are added to the Normal Cost.  |
|---|--|
| Benefit Service                         | Exact fractional service is used to determine the amount of benefit payable.   |
| Cost of Living Increases                | Benefits are assumed to be increased by 2% per year beginning six years,<br>on average, after benefit commencement (DROP Entry) for current and<br>future DROP participants, and beginning five years after benefit<br>commencement for all other members who retire on or after December<br>1, 2006.  |
| Decrement Operation                     | Disability and mortality decrements operate during retirement eligibility.   |
| Decrement Timing                        | Decrements of all types are assumed to occur at the beginning of the year.   |
| Eligibility Testing                     | Eligibility for benefits is determined based upon the age nearest<br>birthday and service nearest whole year on the date the decrement is<br>assumed to occur.   |
| Forfeitures                             | For vested separations from service, it is assumed that 0% of members<br>separating will withdraw their contributions and forfeit an employer<br>financed benefit. It was further assumed that the liability at termination<br>is the greater of the vested deferred benefit (if any) or the member's<br>accumulated contributions.  |
| Incidence of Contributions              | The employer contribution is assumed to be made in one full payment<br>on October 1 <sup>st</sup> of each year (at the beginning of the fiscal year).<br>Member contributions are assumed to be received continuously<br>throughout the year based upon the computed percent of payroll shown<br>in this report, and the actual payroll payable at the time contributions<br>are made. |
| Liability Load                          | Projected retirement benefits are loaded by a unique amount for each<br>member to allow for the inclusion of unused sick and vacation pay in<br>final average earnings. These individual loads are based on the number<br>of hours of unused sick and vacation reported for each member as of<br>September 27, 2013.   |
| Marriage Assumption                     | 100% of males and 100% of females are assumed to be married for<br>purposes of death-in-service benefits. Male spouses are assumed to be<br>three years older than female spouses for active member valuation<br>purposes.   |



| Normal Form of Benefit  | A ten year certain and life thereafter annuity is the Normal Form of Benefit.  |
|-------------------------|--|
| Pay Increase Timing     | Beginning of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date. |
| Service Credit Accruals | It is assumed that members accrue one year of service credit per year.   |



# GLOSSARY

| Actuarial Accrued Liability<br>(AAL)                  | The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.  |
|---|---|
| Actuarial Assumptions                                 | Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.   |
| Actuarial Cost Method                                 | A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.   |
| Actuarial Equivalent                                  | Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.  |
| Actuarial Present Value (APV)                         | The amount of funds required to provide a payment or series of payments<br>in the future. It is determined by discounting the future payments with an<br>assumed interest rate and with the assumed probability each payment will<br>be made.   |
| Actuarial Present Value of<br>Future Benefits (APVFB) | The Actuarial Present Value of amounts which are expected to be paid at<br>various future times to active members, retired members, beneficiaries<br>receiving benefits, and inactive, nonretired members entitled to either a<br>refund or a future retirement benefit. Expressed another way, it is the<br>value that would have to be invested on the valuation date so that the<br>amount invested plus investment earnings would provide sufficient assets<br>to pay all projected benefits and expenses when due. |
| Actuarial Valuation                                   | The determination, as of a valuation date, of the Normal Cost, Actuarial<br>Accrued Liability, Actuarial Value of Assets, and related Actuarial Present<br>Values for a plan. An Actuarial Valuation for a governmental retirement<br>system typically also includes calculations of items needed for compliance<br>with GASB.  |
| Actuarial Value of Assets                             | The value of the assets as of a given date, used by the actuary for<br>valuation purposes. This may be the market or fair value of plan assets<br>or a smoothed value in order to reduce the year-to-year volatility of<br>calculated results, such as the funded ratio and the actuarially<br>determined employer contribution (ADEC).   |



| Actuarially Determined<br>Employer Contribution<br>(ADEC) | The employer's periodic required contributions, expressed as a dollar<br>amount or a percentage of covered plan compensation, determined<br>under GASB. The ADEC consists of the Employer Normal Cost and<br>Amortization Payment.  |
|---|---|
| Amortization Method                                       | A method for determining the Amortization Payment. The most common<br>methods used are level dollar and level percentage of payroll. Under the<br>Level Dollar method, the Amortization Payment is one of a stream of<br>payments, all equal, whose Actuarial Present Value is equal to the UAAL.<br>Under the Level Percentage of Pay method, the Amortization Payment is<br>one of a stream of increasing payments, whose Actuarial Present Value is<br>equal to the UAAL. Under the Level Percentage of Pay method, the<br>stream of payments increases at the rate at which total covered payroll<br>of all active members is assumed to increase.  |
| Amortization Payment                                      | That portion of the plan contribution or ADEC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.  |
| Amortization Period                                       | The period used in calculating the Amortization Payment.  |
| Closed Amortization Period                                | A specific number of years that is reduced by one each year, and declines<br>to zero with the passage of time. For example if the amortization period<br>is initially set at 30 years, it is 29 years at the end of one year, 28 years at<br>the end of two years, etc.   |
| Employer Normal Cost                                      | The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.   |
| Equivalent Single<br>Amortization Period                  | For plans that do not establish separate amortization bases (separate<br>components of the UAAL), this is the same as the Amortization Period.<br>For plans that do establish separate amortization bases, this is the period<br>over which the UAAL would be amortized if all amortization bases were<br>combined upon the current UAAL payment.   |
| Experience Gain/Loss                                      | A measure of the difference between actual experience and that<br>expected based upon a set of Actuarial Assumptions, during the period<br>between two actuarial valuations. To the extent that actual experience<br>differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge<br>which may be larger or smaller than projected. Gains are due to<br>favorable experience, e.g., the assets earn more than projected, salaries<br>do not increase as fast as assumed, members retire later than assumed,<br>etc. Favorable experience means actual results produce actuarial<br>liabilities not as large as projected by the actuarial assumptions. On the<br>other hand, losses are the result of unfavorable experience, i.e., actual<br>results that produce Unfunded Actuarial Accrued Liabilities which are<br>larger than projected. |



| Funded Ratio                            | The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.   |  |  |
|---|--|--|--|
| GASB                                    | Governmental Accounting Standards Board.   |  |  |
| GASB No. 68 and<br>GASB No. 67          | These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.  |  |  |
| Normal Cost                             | The annual cost assigned, under the Actuarial Cost Method, to the current plan year.   |  |  |
| Open Amortization Period                | An open amortization period is one which is used to determine the<br>Amortization Payment but which does not change over time. In other<br>words, if the initial period is set as 30 years, the same 30-year period is<br>used in determining the Amortization Period each year. In theory, if an<br>Open Amortization Period is used to amortize the Unfunded Actuarial<br>Accrued Liability, the UAAL will never completely disappear, but will<br>become smaller each year, either as a dollar amount or in relation to<br>covered payroll. |  |  |
| Unfunded Actuarial Accrued<br>Liability | The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.  |  |  |
| Valuation Date                          | The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.  |  |  |



**SECTION C** 

**PENSION FUND INFORMATION** 

# **SUMMARY OF ASSETS**

|          |   |         | Septer                       | mber 30 |                            |
|----------|---|---------|------------------------------|---------|----------------------------|
|          | Item  |         | 2022                         |         | 2021                       |
| A.       | Cash and Cash Equivalents (Operating Cash)                                    | \$      | 217,096                      | \$      | -                          |
| В.       | Receivables:  |         |                              |         |                            |
|          | 1. Member Contributions   |         | -                            | \$      | -                          |
|          | 2. Employer Contributions   |         | 103,244                      |         | -                          |
|          | 3. State Contributions  |         | -                            |         | -                          |
|          | 4. Investment Income and Other Receivables                                    | 5       | 298,218                      |         | 234,509                    |
|          | 5. Prepaid Expenses   |         | 15,130                       |         | 15,130                     |
|          | 6. Total Receivables  | \$      | 416,592                      | \$      | 249,639                    |
| C.       | Investments   |         |                              |         |                            |
|          | 1. Short Term Investments   | \$      | 4,998,185                    | \$      | 6,466,977                  |
|          | 2. Domestic Equities  |         | 64,627,389                   |         | 72,531,186                 |
|          | 3. International Equities   |         | 19,149,510                   |         | 28,692,647                 |
|          | 4. Domestic Fixed Income  |         | 28,508,475                   |         | 48,836,257                 |
|          | 5. International Fixed Income   |         | -                            |         | -                          |
|          | 6. Real Estate  |         | 21,306,385                   |         | 8,585,982                  |
|          | 7. Private Equity   |         | -                            |         | -                          |
|          | 8. Total Investments  | \$      | 138,589,944                  | \$      | 165,113,049                |
| D.       | Liabilities   |         |                              |         |                            |
|          | 1. Benefits Payable   | \$      | -                            | \$      | -                          |
|          | 2. Accrued Expenses and Other Payables  |         | (431,343)                    |         | (479,543                   |
|          | 3. Prepaid City Contribution  |         | -                            |         | -                          |
|          | 4. Total Liabilities  | \$      | (431,343)                    | \$      | (479,543                   |
| E.       | Total Market Value of Assets Available for Benefits                           | \$      | 138,792,289                  | \$      | 164,883,145                |
| F.       | Reserves  |         |                              |         |                            |
|          | 1. State Contribution Reserve   | \$      | (1,656,263)                  | \$      | (1,668,034                 |
|          | <ol> <li>DROP Accounts</li> <li>Total Reserves</li> </ol>                     | \$      | (24,470,083)<br>(26,126,346) | \$      | (22,369,614<br>(24,037,648 |
| G.       | Market Value Net of Reserves  | ې<br>\$ | 112,665,943                  | \$      | 140,845,497                |
| с.<br>F. | Allocation of Investments   | Ŷ       | 112,003,343                  | Ŷ       | 140,043,437                |
| г.       | 1. Short Term Investments   |         | 3.61%                        |         | 3.92%                      |
|          | 2. Domestic Equities  |         | 46.63%                       |         | 43.93%                     |
|          | 3. International Equities   |         | 13.82%                       |         | 17.379                     |
|          | 4. Domestic Fixed Income  |         | 20.57%                       |         | 29.58%                     |
|          | <ol> <li>Domestic Fixed Income</li> <li>International Fixed Income</li> </ol> |         | 0.00%                        |         | 29.587<br>0.00%            |
|          |   |         | 15.37%                       |         |                            |
|          |   |         |                              |         | 5.20%                      |
|          | <ol> <li>Private Equity</li> <li>Total Investments</li> </ol>                 |         | 0.00% 100.00%                |         | 0.00%                      |



# **PENSION FUND INCOME & DISBURSEMENTS**

|    |  | September 30 |              |    |                        |  |
|----|--|--------------|--------------|----|------------------------|--|
|    | Item   |              | 2022         |    | 2021                   |  |
| Α. | Market Value of Assets at Beginning of Year  | \$           | 164,883,145  | \$ | 137,919,967            |  |
| B. | Revenues and Expenditures                    |              |              |    |                        |  |
|    | 1. Contributions                             |              |              |    |                        |  |
|    | a. Employee Contributions                    | \$           | 1,528,306    | \$ | 1,457,370              |  |
|    | b. Employer Contributions                    |              | 5,545,366    |    | 5,338,338 <sup>°</sup> |  |
|    | d. State Contributions                       |              | 1,056,527    |    | 995,143                |  |
|    | e. Service Purchase                          |              | 24,869       |    | 32,565                 |  |
|    | f. Rollover to DROP                          |              | 169,316      |    | 168,513                |  |
|    | g. Total                                     | \$           | 8,324,384    | \$ | 7,991,929              |  |
|    | 2. Investment Income                         |              |              |    |                        |  |
|    | a. Interest, Dividends, and Other Income     | \$           | 3,450,700    | \$ | 3,208,768              |  |
|    | b. Net Realized Gains/(Losses)               |              | 856,438      |    | 10,204,986             |  |
|    | c. Net Unrealized Gains/(Losses)             |              | (30,136,563) |    | 13,252,581             |  |
|    | d. Investment Expenses                       |              | (443,117)    |    | (450,151)              |  |
|    | e. Net Investment Income                     | \$           | (26,272,542) | \$ | 26,216,184             |  |
|    | 3. Benefits and Refunds                      |              |              |    |                        |  |
|    | a. Refunds                                   | \$           | (12,850)     | \$ | (8,017)                |  |
|    | b. Regular Monthly Benefits                  |              | (6,765,520)  |    | (6,501,805)            |  |
|    | c. DROP Distributions                        |              | (1,180,246)  |    | (548 <i>,</i> 886)     |  |
|    | d. Ad Hoc Payments from State Reserve        |              | -            |    | -                      |  |
|    | e. Total                                     | \$           | (7,958,616)  | \$ | (7,058,708)            |  |
|    | 4. Administrative and Miscellaneous Expenses | \$           | (184,082)    | \$ | (186,227)              |  |
|    | 5. Transfers                                 | \$           | -            | \$ | -                      |  |
| C. | Market Value of Assets at End of Year        | \$           | 138,792,289  | \$ | 164,883,145            |  |
| D. | Reserves                                     |              |              |    |                        |  |
|    | 1. State Contribution Reserve                | \$           | (1,656,263)  | \$ | (1,668,034)            |  |
|    | 2. DROP Accounts                             |              | (24,470,083) |    | (22,369,614)           |  |
|    | 3. Total Reserves                            | \$           | (26,126,346) | \$ | (24,037,648)           |  |
| E. | Market Value Net of Reserves                 | \$           | 112,665,943  | \$ | 140,845,497            |  |

\* For 2021, actual City contribution was \$5,215,363, but \$5,338,338 was recognized to include the remaining \$122,975 of the previous year's prepaid contribution.



# **ACTUARIAL VALUE OF ASSETS**

|    | Valuation Date - September 30                          | 2021           | 2022           | 2023               | 2024        | 2025        | 2026        |
|----|--|----------------|----------------|--------------------|-------------|-------------|-------------|
| Α. | Actuarial Value of Assets Beginning of Year            | \$ 132,011,046 | \$ 148,256,752 | \$ -               | \$-         | \$-         | \$-         |
| В. | Market Value End of Year                               | 164,883,145    | 138,792,289    | -                  | -           | -           | -           |
| C. | Market Value Beginning of Year                         | 137,919,967    | 164,883,145    | -                  | -           | -           | -           |
| D. | Non-Investment/Administrative Net Cash Flow            | 746,994        | 181,686        | -                  | -           | -           | -           |
| E. | Investment Income                                      |                |                |                    |             |             |             |
|    | E1. Actual Market Total: B-C-D                         | 26,216,184     | (26,272,542)   | -                  | -           | -           | -           |
|    | E2. Assumed Rate of Return                             | 7.35%          | 7.15%          | -                  | -           | -           | -           |
|    | E3. Assumed Amount of Return                           | 9,926,448      | 10,805,100     | -                  | -           | -           | -           |
|    | E4. Amount Subject to Phase-In: E1–E3                  | 16,289,736     | (37,077,642)   | -                  | -           | -           | -           |
| F. | Phase-In Recognition of Investment Income              |                |                |                    |             |             |             |
|    | F1. Current Year: 0.2 x E4                             | 3,257,947      | (7,415,528)    | -                  | -           | -           | -           |
|    | F2. First Prior Year                                   | 1,328,187      | 3,257,947      | (7,415,528)        | -           | -           | -           |
|    | F3. Second Prior Year                                  | (339,497)      | 1,328,187      | 3,257,947          | (7,415,528) | -           | -           |
|    | F4. Third Prior Year                                   | 289,039        | (339,497)      | 1,328,187          | 3,257,947   | (7,415,528) | -           |
|    | F5. Fourth Prior Year                                  | 1,036,588      | 289,040        | (339 <i>,</i> 499) | 1,328,186   | 3,257,948   | (7,415,530) |
|    | F6. Total Phase-Ins                                    | 5,572,264      | (2,879,851)    | (3,168,893)        | (2,829,395) | (4,157,580) | (7,415,530) |
| G. | Actuarial Value of Assets End of Year                  |                |                |                    |             |             |             |
|    | G1. Preliminary Actuarial Value of Assets End of Year: | \$ 148,256,752 | \$ 156,363,687 | \$ -               | \$-         | \$-         | \$-         |
|    | G2. Upper Corridor Limit: 120%*B                       | 197,859,774    | 166,550,747    | -                  | -           | -           | -           |
|    | G3. Lower Corridor Limit: 80%*B                        | 131,906,516    | 111,033,831    | -                  | -           | -           | -           |
|    | G4. Funding Value End of Year                          | 148,256,752    | 156,363,687    | -                  | -           | -           | -           |
|    | G5. Less: State Contribution Reserve                   | (1,668,034)    | (1,656,263)    | -                  | -           | -           | -           |
|    | G6. Less: DROP Account Balance                         | (22,369,614)   | (24,470,083)   | -                  | -           | -           | -           |
|    | G7. Final Funding Value End of Year                    | 124,219,104    | 130,237,341    | -                  | -           | -           | -           |
|    | G8. Final Market Value End of Year                     | 140,845,497    | 112,665,943    | -                  | -           | -           | -           |
| Н. | Difference between Market & Actuarial Value of Assets  | 16,626,393     | (17,571,398)   | -                  | -           | -           | -           |
| ١. | Actuarial Rate of Return                               | 11.48%         | 5.24%          | 0.00%              | 0.00%       | 0.00%       | 0.00%       |
| J. | Market Value Rate of Return                            | 18.60%         | -15.66%        | 0.00%              | 0.00%       | 0.00%       | 0.00%       |
| К. | Ratio of Actuarial Value of Assets to Market Value     | 89.92%         | 112.66%        | 0.00%              | 0.00%       | 0.00%       | 0.00%       |



| RECONCILIATION OF DROP ACCOU            | JNTS          |
|---|---------------|
| Value at beginning of year              | \$ 22,369,614 |
| Adjustment to beginning of year balance | + 0           |
| Payments credited to accounts           | + 1,520,552   |
| Rollovers into DROP                     | + 169,316     |
| Net Loan Activity                       | - 41,163      |
| Investment Earnings credited            | + 1,590,847   |
| Withdrawals from accounts               | - 1,139,083   |
| Value at end of year                    | 24,470,083    |



# **INVESTMENT RATE OF RETURN**

|                    | Investment R | ate of Return   |
|--------------------|--------------|-----------------|
| Year Ended         | Market Value | Actuarial Value |
| 12/31/1982         | NA %         | 11.9 %          |
| 12/31/1983         | 15.2         | 13.9            |
| 12/31/1984         | 11.7         | 11.1            |
| 12/31/1985         | 23.1         | 18.7            |
| 12/31/1986         | 11.8         | 13.4            |
| 12/31/1987         | 5.3          | 10.3            |
| 12/31/1988         | 10.9         | 9.8             |
| 12/31/1989         | 15.9         | 14.8            |
| 9/30/1990 (9 mos.) | (1.6)        | 1.4             |
| 9/30/1991          | 19.6         | 13.1            |
| 9/30/1992          | 12.7         | 11.2            |
| 9/30/1993          | 13.1         | 9.7             |
| 9/30/1994          | 0.2          | 3.1             |
| 9/30/1995          | 18.8         | 9.3             |
| 9/30/1996          | 13.1         | 9.8             |
| 9/30/1997          | 24.5         | 12.6            |
| 9/30/1998          | 11.4         | 12.4            |
| 9/30/1999          | 11.8         | 14.1            |
| 9/30/2000          | 9.4          | 13.3            |
| 9/30/2001          | (7.7)        | 8.0             |
| 9/30/2002          | (5.6)        | 2.3             |
| 9/30/2003          | 15.3         | 3.5             |
| 9/30/2004          | 6.4          | 2.2             |
| 9/30/2005          | 7.9          | 2.5             |
| 9/30/2006          | 5.2          | 5.3             |
| 9/30/2007          | 12.3         | 9.3             |
| 9/30/2008          | (17.1)       | 3.0             |
| 9/30/2009          | (0.2)        | 0.9             |
| 9/30/2010          | 8.5          | 2.5             |
| 9/30/2011          | (0.9)        | 0.9             |
| 9/30/2012          | 17.1         | 2.7             |
| 9/30/2013          | 13.6         | 8.1             |
| 9/30/2014          | 10.2         | 8.8             |
| 9/30/2015          | 0.4          | 7.3             |
| 9/30/2016          | 11.1         | 9.2             |
| 9/30/2017          | 13.0         | 9.3             |
| 9/30/2018          | 8.6          | 8.7             |
| 9/30/2019          | 5.8          | 7.9             |
| 9/30/2020          | 12.7         | 9.9             |
| 9/30/2021          | 18.6         | 11.5            |
| 9/30/2022          | (15.7)       | 5.2             |
| Average Returns:   |              |                 |
| Last Five Years    | 5.3 %        | 8.6 %           |
| Last Ten Years     | 7.4 %        | 8.6 %           |
| All Years          | 8.3 %        | 8.3 %           |



**SECTION D** 

**FINANCIAL ACCOUNTING INFORMATION** 

|    | FASB NO. 35 INFORM  | ATION  |   |  |  |
|----|---|--|---|--|--|
| А. | Valuation Date  | October 1, 2022  | October 1, 2021   |  |  |
| В. | Actuarial Present Value of Accumulated<br>Plan Benefits   |  |   |  |  |
|    | 1. Vested Benefits  |  |   |  |  |
|    | <ul> <li>a. Members Currently Receiving Payments</li> <li>b. Terminated Vested Members</li> <li>c. Other Members</li> <li>d. Total</li> </ul> | \$ 108,788,012<br>891,207<br>50,481,904<br>160,161,123 | \$ 106,951,463<br>830,675<br><u>44,011,577</u><br>151,793,715 |  |  |
|    | 2. Non-Vested Benefits  | 2,892,757  | 2,451,927   |  |  |
|    | <ol> <li>Total Actuarial Present Value of Accumulated</li> <li>Plan Benefits: 1d + 2</li> </ol>   | 163,053,880  | 154,245,642   |  |  |
|    | 4. Accumulated Contributions of Active Members  | 12,247,651   | 11,176,646  |  |  |
| C. | Changes in the Actuarial Present Value of<br>Accumulated Plan Benefits  |  |   |  |  |
|    | 1. Total Value at Beginning of Year   | 154,245,642  | 142,806,095   |  |  |
|    | 2. Increase (Decrease) During the Period<br>Attributable to:  |  |   |  |  |
|    | a. Plan Amendment   | 0  | (936,237)   |  |  |
|    | <ul><li>b. Change in Actuarial Assumptions</li><li>c. Latest Member Data, Benefits Accumulated</li></ul>                                      | 0  | 3,602,073   |  |  |
|    | and Decrease in the Discount Period   | 17,107,160   | 16,602,133  |  |  |
|    | d. Benefits Paid net of DROP activity   | (8,298,922)  | (7,828,422)   |  |  |
|    | e. Net Increase   | 8,808,238  | 11,439,547  |  |  |
|    | 3. Total Value at End of Period   | 163,053,880  | 154,245,642   |  |  |
| D. | Market Value of Assets  | 112,665,943  | 140,845,497   |  |  |
| E. | Actuarial Assumptions - See page entitled<br>Actuarial Assumptions and Methods  |  |   |  |  |



# SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS GASB Statement No. 67

| Fiscal year ending September 30,                 | 2023*             | 2022          | 2021          | 2020          | 2019          | 2018          | 2017              | 2016          | 2015          | 2014          |
|--|-------------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|---------------|---------------|
| Total pension liability                          |                   |               |               |               |               |               |                   |               |               |               |
| Service Cost                                     | \$ 4,422,986      | \$ 3,942,576  | \$ 3,656,658  | \$ 3,593,983  | \$ 3,403,511  | \$ 3,717,529  | \$ 3,330,443      | \$ 3,204,682  | \$ 2,988,536  | \$ 2,772,724  |
| Interest   | 14,274,395        | 13,674,379    | 13,234,970    | 12,281,407    | 11,904,771    | 11,208,637    | 10,066,945        | 9,542,671     | 8,955,215     | 8,188,369     |
| Benefit Changes                                  | (1,270,839)       | -             | -             | 616,047       | (1,384,791)   | -             | -                 | -             | -             | -             |
| Difference between actual & expected experience  | 970,022           | 1,322,203     | (890,682)     | 3,514,248     | (1,516,079)   | 1,224,054     | 668,799           | (498,197)     | 708,071       | (28,363)      |
| Assumption Changes                               | -                 | 3,883,409     | 709,591       | -             | -             | -             | 6,644,861         | -             | 1,809,581     | -             |
| Benefit Payments                                 | (9,132,524)       | (7,945,766)   | (7,050,691)   | (7,663,405)   | (7,597,186)   | (5,970,713)   | (5,456,760)       | (5,176,836)   | (4,304,149)   | (4,292,070)   |
| Refunds  | (51 <i>,</i> 906) | (12,850)      | (8,017)       | (84,833)      | (26,917)      | (105,981)     | (53 <i>,</i> 290) | -             | (4,622)       | (50,673)      |
| Other (Adjustments to Excess State Reserve)      | 113,061           | (11,771)      | (142,242)     | (255,622)     | (8,104)       | (326,167)     | (231,973)         | (192,041)     | 259,251       | 312,239       |
| Other (Rollovers into DROP)                      |                   | 169,316       | 168,513       | 327,937       | 379,375       | 323,472       | 70,279            | 271,411       | 139,860       | 343,843       |
| Net Change in Total Pension Liability            | 9,325,195         | 15,021,496    | 9,678,100     | 12,329,762    | 5,154,580     | 10,070,831    | 15,039,304        | 7,151,690     | 10,551,743    | 7,246,069     |
| Total Pension Liability - Beginning              | 201,025,429       | 186,003,933   | 176,325,833   | 163,996,071   | 158,841,491   | 148,770,660   | 133,731,356       | 126,579,666   | 116,027,923   | 108,781,854   |
| Total Pension Liability - Ending (a)             | \$210,350,624     | \$201,025,429 | \$186,003,933 | \$176,325,833 | \$163,996,071 | \$158,841,491 | \$148,770,660     | \$133,731,356 | \$126,579,666 | \$116,027,923 |
| Plan Fiduciary Net Position                      |                   |               |               |               |               |               |                   |               |               |               |
| Contributions - Employer (from City)             | \$ 5,703,846      | \$ 5,545,366  | \$ 5,215,363  | \$ 4,734,845  | \$ 5,627,597  | \$ 5,444,061  | \$ 4,293,563      | \$ 4,195,420  | \$ 3,930,996  | \$ 3,522,147  |
| Contributions - Employer (from State)            | 1,056,527         | 1,056,527     | 995,143       | 881,763       | 830,904       | 789,121       | 883,314           | 923,246       | 963,573       | 1,016,561     |
| Contributions - Non-Employer Contributing Entity | -                 | -             | -             | -             | -             | -             | -                 | -             | -             | -             |
| Contributions - Members                          | 1,549,317         | 1,553,175     | 1,489,935     | 1,448,783     | 1,524,397     | 1,473,516     | 1,477,115         | 1,485,128     | 1,251,530     | 1,291,773     |
| Net Investment Income                            | 10,061,342        | (26,272,542)  | 26,216,184    | 15,834,660    | 6,835,550     | 9,221,736     | 12,165,106        | 9,197,486     | 282,853       | 7,187,580     |
| Benefit Payments                                 | (9,132,524)       | (7,945,766)   | (7,050,691)   | (7,663,405)   | (7,597,186)   | (5,970,713)   | (5,456,760)       | (5,176,836)   | (4,304,149)   | (4,292,070)   |
| Refunds  | (51,906)          | (12,850)      | (8,017)       | (84,833)      | (26,917)      | (105,981)     | (53 <i>,</i> 290) | -             | (4,622)       | (50,673)      |
| Administrative Expense                           | (185,155)         | (184,082)     | (186,227)     | (229,164)     | (184,750)     | (141,569)     | (151,010)         | (161,122)     | (132,439)     | (122,390)     |
| Other (Rollovers into DROP)                      |                   | 169,316       | 168,513       | 327,937       | 379,375       | 323,472       | 70,279            | 271,411       | 139,860       | 343,843       |
| Net Change in Plan Fiduciary Net Position        | 9,001,447         | (26,090,856)  | 26,840,203    | 15,250,586    | 7,388,970     | 11,033,643    | 13,228,317        | 10,734,733    | 2,127,602     | 8,896,771     |
| Plan Fiduciary Net Position - Beginning          | 138,792,289       | 164,883,145   | 138,042,942   | 122,792,356   | 115,403,386   | 104,369,743   | 91,141,426        | 80,406,693    | 78,279,091    | 69,382,320    |
| Plan Fiduciary Net Position - Ending (b)         | \$147,793,736     | \$138,792,289 | \$164,883,145 | \$138,042,942 | \$122,792,356 | \$115,403,386 | \$104,369,743     | \$ 91,141,426 | \$ 80,406,693 | \$ 78,279,091 |
| Net Pension Liability - Ending (a) - (b)         | 62,556,888        | 62,233,140    | 21,120,788    | 38,282,891    | 41,203,715    | 43,438,105    | 44,400,917        | 42,589,930    | 46,172,973    | 37,748,832    |
| Plan Fiduciary Net Position as a Percentage      |                   |               |               |               |               |               |                   |               |               |               |
| of Total Pension Liability                       | 70.26 %           | 69.04 %       | 88.64 %       | 78.29 %       | 74.88 %       | 72.65 %       | 70.15 %           | 68.15 %       | 63.52 %       | 67.47 %       |
| Covered Employee Payroll                         | \$ 12,910,978     | \$ 12,735,883 | \$ 12,144,750 | \$ 11,666,258 | \$ 12,156,508 | \$ 11,133,758 | \$ 11,219,225     | \$ 10,906,700 | \$ 9,962,067  | \$ 9,925,925  |
| Net Pension Liability as a Percentage            |                   |               |               |               |               |               |                   |               |               |               |
| of Covered Employee Payroll                      | 484.52 %          | 488.64 %      | 173.91 %      | 328.15 %      | 338.94 %      | 390.15 %      | 395.76 %          | 390.49 %      | 463.49 %      | 380.31 %      |

\* These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



# SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY GASB Statement No. 67

| FY Ending     | Total<br>Pension | Plan Net      | Net Pension   | Plan Net Position<br>as a % of Total | Covered      | Net Pension Liability<br>as a % of |
|---------------|------------------|---------------|---------------|--------------------------------------|--------------|------------------------------------|
| September 30, | Liability        | Position      | Liability     | Pension Liability                    | Payroll      | Coverd Payroll                     |
| 2014          | \$116,027,923    | \$ 78,279,091 | \$ 37,748,832 | 67.47%                               | \$ 9,925,925 | 380.31%                            |
| 2015          | 126,579,666      | 80,406,693    | 46,172,973    | 63.52%                               | 9,962,067    | 463.49%                            |
| 2016          | 133,731,356      | 91,141,426    | 42,589,930    | 68.15%                               | 10,906,700   | 390.49%                            |
| 2017          | 148,770,660      | 104,369,743   | 44,400,917    | 70.15%                               | 11,219,225   | 395.76%                            |
| 2018          | 158,841,491      | 115,403,386   | 43,438,105    | 72.65%                               | 11,133,758   | 390.15%                            |
| 2019          | 163,996,071      | 122,792,356   | 41,203,715    | 74.88%                               | 12,156,508   | 338.94%                            |
| 2020          | 176,325,833      | 138,042,942   | 38,282,891    | 78.29%                               | 11,666,258   | 328.15%                            |
| 2021          | 186,003,933      | 164,883,145   | 21,120,788    | 88.64%                               | 12,144,750   | 173.91%                            |
| 2022          | 201,025,429      | 138,792,289   | 62,233,140    | 69.04%                               | 12,735,883   | 488.64%                            |
| 2023*         | 210,350,624      | 147,793,736   | 62,556,888    | 70.26%                               | 12,910,978   | 484.52%                            |

\* These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



# NOTES TO NET PENSION LIABILITY GASB Statement No. 67

| Valuation Date:             | October 1, 2022   |
|-----------------------------|---|
| Measurement Date:           | September 30, 2023  |
| Methods and Assumptions Use | d to Determine Net Pension Liability:   |
| Actuarial Cost Method       | Entry Age Normal  |
| Inflation                   | 2.25%   |
| Salary Increases            | Varies by years of service from 3.25% to 15.0% (see Table in Actuarial Assumptions Section)   |
| Investment Rate of Return   | 7.15%   |
| Retirement Age              | Rates vary by age and years of service (see Table in Actuarial Assumptions<br>Section)  |
| Mortality                   | PUB-2010 Headcount Weighted Safety Healthy Employee Mortality Table<br>(for pre-retirement mortality) and the PUB-2010 Headcount Weighted<br>Safety Healthy Retiree Mortality Table (for postretirement mortality), with<br>separate rates for males and females and ages set forward one year, with<br>mortality improvements projected to all future years after 2010 using Scale<br>MP-2018. For males, the base mortality rates for both pre-retirement and<br>post-retirement mortality are based on the Below Median Healthy tables.<br>These are the same rates currently in use for Special Risk Class members of<br>the Florida Retirement System (FRS), as mandated by Chapter 112.63,<br>Florida Statutes. |
| Other Information:          |   |
| Notes                       | See Discussion of Valuation Results on Page 1.  |



# SCHEDULE OF CONTRIBUTIONS GASB Statement No. 67

| FY Ending<br>September 30, | Actuarially<br>Determined<br>Contribution | Determined Actual Deficiency |                                | Covered<br>Payroll* | Actual Contribution<br>as a % of<br>Covered Payroll |
|----------------------------|---|------------------------------|--------------------------------|---------------------|---|
| 2014                       | \$ 4,226,469                              | \$ 4,226,469                 | \$-                            | \$ 9,925,925        | 42.58%  |
| 2015                       | 4,635,318                                 | 4,635,318                    | -                              | 9,962,067           | 46.53%  |
| 2016                       | 4,899,742                                 | 4,977,374                    | (77,632) <sup>1</sup>          | 10,906,700          | 45.64%  |
| 2017                       | 5,075,517                                 | 5,075,517                    | -                              | 11,219,225          | 45.24%  |
| 2018                       | 6,157,171                                 | 6,226,015                    | (68 <i>,</i> 844) <sup>1</sup> | 11,133,758          | 55.92%  |
| 2019                       | 6,409,551                                 | 6,458,501                    | (48,950) <sup>1</sup>          | 12,156,508          | 53.13%  |
| 2020                       | 5,969,275                                 | 5,616,608                    | 352,667 <sup>2</sup>           | 11,666,258          | 48.14%  |
| 2021                       | 6,400,723                                 | 6,210,506                    | 190,217 <sup>3</sup>           | 12,144,750          | 51.14%  |
| 2022                       | 6,607,751                                 | 6,601,893                    | 5,858 <sup>4</sup>             | 12,735,883          | 51.84%  |
| 2023*                      | 6,647,312                                 | 6,647,312                    | -                              | 12,910,978          | 51.49%  |

### \* These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

- <sup>1</sup>Prepaid contributions (resulting from the previous years' excess contributions) were applied toward the Actuarially Determined Contributions for Fiscal Year Ending September 30, 2020 and 2021.
- <sup>2</sup>The Deficiency in actual contribution is funded through the use of Prepaid contributions (\$172,045) plus Accumulated Excess Chapter 175 Premium Tax Revenue Reserves (\$180,622).
- <sup>3</sup>The Deficiency in actual contribution is funded through the use of Prepaid contributions (\$122,975) plus Accumulated Excess Chapter 175 Premium Tax Revenue Reserves (\$67,242).
- <sup>4</sup>The Deficiency in actual contribution is funded through the use of Accumulated Excess Chapter 175 Premium Tax Revenue Reserves.



# NOTES TO SCHEDULE OF CONTRIBUTIONS **GASB Statement No. 67**

| Valuation Date:<br>Notes       | October 1, 2021<br>Actuarially determined contribution rates are calculated as of the<br>October 1st which is two years prior to the end of the fiscal year in which<br>contributions are reported. |
|--------------------------------|---|
| Methods and Assumptions Used   | to Determine Contribution Rates:  |
| Actuarial Cost Method          | Entry Age Normal  |
| Amortization Method            | Level Percentage of Payroll, Closed   |
| Remaining Amortization Period  | 16 years (Single equivalent amortization period)  |
| Asset Valuation Method         | 5-year smoothed market  |
| Inflation                      | 2.25%   |
| Salary Increases               | Varies by years of service from 3.25% to 15.0% (see Table in Actuarial  |
|                                | Assumptions Section)  |
| Investment Rate of Return      | 7.15%   |
| Retirement Age                 | Rates vary by age and years of service (see Table in Actuarial  |
| <b>N A C C C C C C C C C C</b> | Assumptions Section)  |
| Mortality                      | PUB-2010 Headcount Weighted Safety Healthy Employee Mortality Table   |
|                                | (for pre-retirement mortality) and the PUB-2010 Headcount Weighted  |
|                                | Safety Healthy Retiree Mortality Table (for postretirement mortality),  |
|                                | with separate rates for males and females and ages set forward one  |
|                                | year, with mortality improvements projected to all future years after   |
|                                | 2010 using Scale MP-2018. For males, the base mortality rates for both  |
|                                | pre-retirement and post-retirement mortality are based on the Below   |
|                                |   |

mandated by Chapter 112.63, Florida Statutes.

**Other Information:** Notes

See Discussion of Valuation Results on Page 1 of the October 1, 2021 Actuarial Valuation Report and the Actuarial Impact Statement dated June 10, 2022.

Median Healthy tables. These are the same rates currently in use for Special Risk Class members of the Florida Retirement System (FRS), as



# SINGLE DISCOUNT RATE GASB Statement No. 67

A single discount rate of 7.15% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.15%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these 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 (7.15%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.15%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

|              | Current Single Discount |              |
|--------------|-------------------------|--------------|
| 1% Decrease  | Rate Assumption         | 1% Increase  |
| 6.15%        | 7.15%                   | 8.15%        |
| \$85,283,194 | \$62,556,888            | \$43,911,446 |

## Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption\*

\* These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



**SECTION E** 

**MISCELLANEOUS INFORMATION** 

|     | RECONCILIATION OF MEMBERSHIP DATA                       |              |              |  |  |
|-----|---|--------------|--------------|--|--|
|     |   | From 10/1/21 | From 10/1/20 |  |  |
|     |   | To 10/1/22   | To 10/1/21   |  |  |
| Α.  | Active Members  | 1            |              |  |  |
| 1.  | Number Included in Last Valuation                       | 111          | 119          |  |  |
| 2.  | New Members Included in Current Valuation               | 9            | 0            |  |  |
| 3.  | Non-Vested Employment Terminations                      | (1)          | (2)          |  |  |
| 4.  | Vested Employment Terminations                          | 0            | 0            |  |  |
| 5.  | DROP Participation                                      | (2)          | (6)          |  |  |
| 6.  | Service Retirements                                     | 0            | 0            |  |  |
| 7.  | Disability Retirements                                  | 0            | 0            |  |  |
| 8.  | Deaths  | 0            | 0            |  |  |
| 9.  | Transfer from General Employees                         | 0            | 0            |  |  |
| 10. | Number Included in This Valuation                       | 117          | 111          |  |  |
| В.  | Terminated Vested Members                               |              |              |  |  |
| 1.  | Number Included in Last Valuation                       | 2            | 2            |  |  |
| 2.  | Additions from Active Members                           | 0            | 0            |  |  |
| 3.  | Lump Sum Payments/Refund of Contributions               | 0            | 0            |  |  |
| 4.  | Payments Commenced                                      | 0            | 0            |  |  |
| 5.  | Deaths  | 0            | 0            |  |  |
| 6.  | Other   | 0            | 0            |  |  |
| 7.  | Number Included in This Valuation                       | 2            | 2            |  |  |
| C.  | DROP Plan Members                                       | •            |              |  |  |
| 1.  | Number Included in Last Valuation                       | 18           | 16           |  |  |
| 2.  | Additions from Active Members                           | 2            | 6            |  |  |
| 3.  | Retirements   | (2)          | (4)          |  |  |
| 4.  | Deaths Resulting in No Further Payments                 | 0            | 0            |  |  |
| 5.  | Other (Death Resulting in Survivor Benefits)            | 0            | 0            |  |  |
| 6.  | Number Included in This Valuation                       | 18           | 18           |  |  |
| D.  | Service Retirees, Disability Retirees and Beneficiaries | 5            | I            |  |  |
| 1.  | Number Included in Last Valuation                       | 115          | 111          |  |  |
| 2.  | Additions from Active Members                           | 0            | 0            |  |  |
| 3.  | Additions from Terminated Vested Members                | 0            | 0            |  |  |
| 4.  | Additions from DROP Plan                                | 2            | 4            |  |  |
| 5.  | Deaths Resulting in No Further Payments                 | (2)          | 0            |  |  |
| 6.  | Deaths Resulting in New Survivor Benefits               | 0            | 0            |  |  |
| 7.  | End of Certain Period - No Further Payments             | 0            | 0            |  |  |
| 8.  | Other Lump Sum Distributions                            | 0            | 0            |  |  |
| 9.  | Number Included in This Valuation                       | 115          | 115          |  |  |



# **ACTIVE PARTICIPANT DISTRIBUTION**

|           |         |     |         | Years   | of Service | to Valuatio | n Date    |           |         |     |            |
|-----------|---------|-----|---------|---------|------------|-------------|-----------|-----------|---------|-----|------------|
| Age Group | 0-1     | 1-2 | 2-3     | 3-4     | 4-5        | 5-9         | 10-14     | 15-19     | 20-24   | 25+ | Totals     |
| 15-19 NO. | 0       | 0   | 0       | 0       | 0          | 0           | 0         | 0         | 0       | 0   | C          |
| ΤΟΤ ΡΑΥ   | 0       | 0   | 0       | 0       | 0          | 0           | 0         | 0         | 0       | 0   | C          |
| AVG PAY   | 0       | 0   | 0       | 0       | 0          | 0           | 0         | 0         | 0       | 0   | C          |
| 20-24 NO. | 3       | 0   | 0       | 0       | 0          | 0           | 0         | 0         | 0       | 0   |            |
| TOT PAY   | 141,532 | 0   | 0       | 0       | 0          | 0           | 0         | 0         | 0       | 0   | 141,532    |
| AVG PAY   | 47,177  | 0   | 0       | 0       | 0          | 0           | 0         | 0         | 0       | 0   |            |
| 25-29 NO. | 3       | 0   | 5       | 3       | 0          | 3           | 0         | 0         | 0       | 0   | 14         |
| ΤΟΤ ΡΑΥ   | 141,532 | 0   | 379,763 | 219,671 | 0          | 305,516     | 0         | 0         | 0       | 0   | 1,046,482  |
| AVG PAY   | 47,177  | 0   | 75,953  | 73,224  | 0          | 101,839     | 0         | 0         | 0       | 0   |            |
| 30-34 NO. | 2       | 0   | 5       | 0       | 1          | 12          | 2         | 0         | 0       | 0   | 22         |
| ΤΟΤ ΡΑΥ   | 94,355  | 0   | 357,784 | 0       | 89,672     | 1,171,322   | 224,424   | 0         | 0       | 0   | 1,937,557  |
| AVG PAY   | 47,178  | 0   | 71,557  | 0       | 89,672     | 97,610      | 112,212   | 0         | 0       | 0   |            |
| 35-39 NO. | 1       | 0   | 1       | 1       | 0          | 8           | 4         | 6         | 0       | 0   | 21         |
| ΤΟΤ ΡΑΥ   | 47,177  | 0   | 80,892  | 65,705  | 0          | 828,102     | 530,933   | 732,174   | 0       | 0   | 2,284,983  |
| AVG PAY   | 47,177  | 0   | 80,892  | 65,705  | 0          | 103,513     | 132,733   | 122,029   | 0       | 0   | 108,809    |
| 40-44 NO. | 0       | 0   | 0       | 0       | 0          | 5           | 7         | 16        | 0       | 0   | _          |
| ΤΟΤ ΡΑΥ   | 0       | 0   | 0       | 0       | 0          | 496,611     | 865,606   | 1,958,586 | 0       | 0   | -,,        |
| AVG PAY   | 0       | 0   | 0       | 0       | 0          | 99,322      | 123,658   | 122,412   | 0       | 0   | 118,600    |
| 45-49 NO. | 0       | 0   | 0       | 0       | 0          | 0           | 1         | 14        | 1       | 0   | 16         |
| ΤΟΤ ΡΑΥ   | 0       | 0   | 0       | 0       | 0          | 0           | 140,798   | 1,785,025 | 137,991 | 0   | 2,063,814  |
| AVG PAY   | 0       | 0   | 0       | 0       | 0          | 0           | 140,798   | 127,502   | 137,991 | 0   | 128,988    |
| 50-54 NO. | 0       | 0   | 0       | 0       | 0          | 0           | 1         | 9         | 0       | 0   | 10         |
| ΤΟΤ ΡΑΥ   | 0       | 0   | 0       | 0       | 0          | 0           | 129,075   | 1,122,437 | 0       | 0   | 1,251,512  |
| AVG PAY   | 0       | 0   | 0       | 0       | 0          | 0           | 129,075   | 124,715   | 0       | 0   | 125,151    |
| 55-59 NO. | 0       | 0   | 0       | 0       | 0          | 0           | 0         | 2         | 0       | 0   | 2          |
| ΤΟΤ ΡΑΥ   | 0       | 0   | 0       | 0       | 0          | 0           | 0         | 265,585   | 0       | 0   | 265,585    |
| AVG PAY   | 0       | 0   | 0       | 0       | 0          | 0           | 0         | 132,793   | 0       | 0   | 132,793    |
| 60-64 NO. | 0       | 0   | 1       | 0       | 0          | 0           | 0         | 0         | 0       | 0   |            |
| TOT PAY   | 0       | 0   | 138,745 | 0       | 0          | 0           | 0         | 0         | 0       | 0   | , -        |
| AVG PAY   | 0       | 0   | 138,745 | 0       | 0          | 0           | 0         | 0         | 0       | 0   | 138,745    |
| 65-99 NO. | 0       | 0   | 0       | 0       | 0          | 0           | 0         | 0         | 0       | 0   | C          |
| ΤΟΤ ΡΑΥ   | 0       | 0   | 0       | 0       | 0          | 0           | 0         | 0         | 0       | 0   | 0          |
| AVG PAY   | 0       | 0   | 0       | 0       | 0          | 0           | 0         | 0         | 0       | 0   | 0          |
| TOT NO.   | 9       | 0   | 12      | 4       | 1          | 28          | 15        | 47        | 1       | 0   | 117        |
| TOT AMT   | 424,596 | 0   | 957,184 |         | 89,672     | 2,801,551   | 1,890,836 |           | 137,991 | 0   | 12,451,013 |
| AVG AMT   | 47,177  | 0   | 79,765  | 71,344  | 89,672     | 100,055     | 126,056   | 124,762   | 137,991 | 0   |            |



# **INACTIVE PARTICIPANT DISTRIBUTION**

|             |                   |          |          |           |         |             |             | sed with  |
|-------------|-------------------|----------|----------|-----------|---------|-------------|-------------|-----------|
|             | Terminated Vested |          | Disabled |           | Retired |             | Beneficiary |           |
|             |                   | Total    |          | Total     |         | Total       |             | Total     |
| Age         | Number            | Benefits | Number   | Benefits  | Number  | Benefits    | Number      | Benefits  |
| Under 20    | -                 | -        | -        | -         | -       | -           | -           | -         |
| 20-24       | -                 | -        | -        | -         | -       | -           | -           | -         |
| 25-29       | -                 | -        | -        | -         | -       | -           | -           | -         |
| 30-34       | -                 | -        | -        | -         | -       | -           | -           | -         |
| 35-39       | -                 | -        | -        | -         | -       | -           | -           | -         |
| 40-44       | 2                 | 77,127   | 1        | 53,975    | 2       | 195,657     | -           | -         |
| 45-49       | -                 | -        | 1        | 46,041    | 11      | 915,027     | 1           | 78,035    |
| 50-54       | -                 | -        | 1        | 47,281    | 17      | 1,315,965   | -           | -         |
| 55-59       | -                 | -        | 1        | 47,995    | 21      | 1,717,861   | 1           | 29,935    |
| 60-64       | -                 | -        | -        | -         | 17      | 1,237,832   | 1           | 57,724    |
| 65-69       | -                 | -        | -        | -         | 24      | 1,142,052   | 1           | 34,603    |
| 70-74       | -                 | -        | -        | -         | 20      | 1,127,685   | -           | -         |
| 75-79       | -                 | -        | -        | -         | 4       | 182,977     | 1           | 29,551    |
| 80-84       | -                 | -        | -        | -         | 3       | 115,133     | 3           | 68,268    |
| 85-89       | -                 | -        | -        | -         | -       | -           | 2           | 21,468    |
| 90-94       | -                 | -        | -        | -         | -       | -           | -           | -         |
| 95-99       | -                 | -        | -        | -         | -       | -           | -           | -         |
| 100 & Over  | -                 | -        | -        | -         | -       | -           | -           | -         |
| Total       | 2                 | 77,127   | 4        | 195,292   | 119     | 7,950,189   | 10          | 319,584   |
| Average Age |                   | 43       |          | 50        |         | 62          |             | 73        |
| Liability   |                   | 891,207  |          | 2,992,983 |         | 102,466,248 |             | 3,328,781 |



**SECTION F** 

**SUMMARY OF PLAN PROVISIONS** 

# SUMMARY OF PLAN PROVISIONS

### A. Ordinances

Plan established under the Code of Ordinances for the City of Boynton Beach, Florida, Chapter 18, Article IV, and was most recently amended under Ordinance No. 22-016 passed and adopted on its second reading on July 5, 2022. The Plan is also governed by certain provisions of Chapter 175, <u>Florida Statutes</u>, Part VII, Chapter 112, <u>Florida Statutes</u> and the Internal Revenue Code.

#### **B. Effective Date**

Date was not provided.

#### C. Plan Year

October 1 through September 30

#### D. Type of Plan

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

#### E. Eligibility Requirements

All full-time firefighters are eligible to participate. Members hired before February 5, 2019 are classified as "Tier 1 members" and members hired on or after February 5, 2019 are classified as "Tier 2 members."

#### F. Credited Service

Service is measured as the total length of employment for which the firefighter received Compensation from the City and made Member Contributions to the plan. No service is credited for any periods of employment for which the member received a refund of their contributions.

#### G. Compensation

Cash compensation exclusive of bonuses and incentive pay, but including overtime earnings not to exceed 300 hours and lump sum payment of accumulated unused sick and vacation hours, but not to exceed the number of accumulated sick and vacation hours as of September 27, 2013.

#### H. Final Average Compensation (FAC)

The average of Compensation over the highest 3 years during the last 10 years of Credited Service.



#### I. Normal Retirement

Eligibility: A member may retire on the first day of the month coincident with or next following the earlier of:

|          | <u>Tier 1:</u><br>(1) age 55 and 10 years of Credited Service, or<br>(2) 20 years of Credited Service regardless of age.  |
|----------|---|
|          | <u>Tier 2:</u><br>(1) age 55 and 10 years of Credited Service, or<br>(2) 25 years of Credited Service regardless of age.  |
| Benefit: | 3.00% of FAC multiplied by years of Credited Service.   |
|          | Effective October 1, 2018, for all Firefighters who are not eligible for Norma as of October 1, 2018 the normal retirement benefit shall be limited to a m benefit cap, initially set at \$95,000 per year. This maximum benefit cap wi |

Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the normal retirement benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year. This maximum benefit cap will be increased annually beginning on October 1, 2020 (and on each October 1<sup>st</sup> thereafter) by 1.5%. As of October 1, 2022, the maximum benefit cap is \$99,339 per year. In accordance with Chapter 175 minimum benefit provisions, in no event will a Firefighter's retirement benefit be less than 2.75% of FAC multiplied by years of Credited Service.

## Normal Form

- of Benefit: 10 Years Certain and Life thereafter; other options are also available.
- COLA: See Section V. Cost of Living Increases.

#### J. Early Retirement

| Eligibility:               | A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 50 and 10 years of Credited Service.   |
|----------------------------|---|
| Benefit:                   | The Normal Retirement Benefit is reduced by 3.0% for each year by which the Early Retirement date precedes the Normal Retirement date.  |
|                            | Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement<br>as of October 1, 2018 the early retirement benefit shall be limited to a maximum benefit<br>cap, initially set at \$95,000 per year (\$99,339 per year as of October 1, 2022), applied to<br>the normal retirement benefit before reflecting any reductions for early retirement. |
| Normal Form<br>of Benefit: | 10 Years Certain and Life thereafter; other options are also available.   |
| COLA:                      | Each early retiree who retires on or after December 1, 2006 will receive a 2.0% increase  |

in benefits on October 1<sup>st</sup> of each year beginning 5 years after retirement.



### K. Delayed Retirement

Same as Normal Retirement taking into account compensation earned and service credited until the date of actual retirement.

#### L. Service Connected Disability

- Eligibility: Any member who becomes totally and permanently disabled as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.
- Benefit: 66 2/3% of Compensation in effect on the date of disability, reduced by amounts payable under Social Security PIA with a minimum benefit equal to 42% of FAC.

Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the disability benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year. As of October 1, 2022, the maximum benefit cap is \$99,339 per year.

### Normal Form

- of Benefit: Payable until death or recovery from disability; other options are also available.
- COLA: Each disability retiree who retires on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1<sup>st</sup> of each year beginning 5 years after retirement.

#### M. Non-Service Connected Disability

Eligibility: Any member with 10 years of Credited Service who becomes totally and permanently disabled is immediately eligible for a disability benefit. Benefit: 2.5% of FAC multiplied by years of Credited Service with a minimum benefit equal to 25% of FAC. Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the disability benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year. As of October 1, 2022, the maximum benefit cap is \$99,339 per year. Normal Form of Benefit: Payable until death or recovery from disability; other options are also available. COLA: Each disability retiree who retires on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1<sup>st</sup> of each year beginning 5 years after retirement.



### N. Death in the Line of Duty

| Eligibility:               | Members are eligible for survivor benefits after the completion of 10 or more years of Credited Service.  |
|----------------------------|---|
| Benefit:                   | Spouse will receive 3.0% of the member's FAC multiplied by years of Credited Service.   |
|                            | Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement<br>as of October 1, 2018 the death benefit shall be limited to a maximum benefit cap,<br>initially set at \$95,000 per year. As of October 1, 2022, the maximum benefit cap is<br>\$99,339 per year. |
| Normal Form<br>of Benefit: | Paid for the life of the spouse with 10 years certain.  |
| COLA:                      | Each surviving spouse whose benefits began on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1 <sup>st</sup> of each year beginning 5 years after benefits began.  |

The beneficiary of a plan member with less than 10 years of Credited Service at the time of death will receive a refund of the member's accumulated contributions.

## O. Other Pre-Retirement Death

| Eligibility:               | Members are eligible for survivor benefits after the completion of 10 or more years of Credited Service.  |
|----------------------------|---|
| Benefit:                   | Spouse will receive 3.0% of the member's FAC multiplied by years of Credited Service.   |
|                            | Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement<br>as of October 1, 2018 the death benefit shall be limited to a maximum benefit cap,<br>initially set at \$95,000 per year. As of October 1, 2022, the maximum benefit cap is<br>\$99,339 per year. |
| Normal Form<br>of Benefit: | Paid for the life of the spouse with 10 years certain.  |
| COLA:                      | Each surviving spouse whose benefits began on or after December 1, 2006 will receive a  |
|                            | 2.0% increase in benefits on October 1 <sup>st</sup> of each year beginning 5 years after benefits began.   |
|                            |   |

The beneficiary of a plan member with less than 10 years of Credited Service at the time of death will receive a refund of the member's accumulated contributions.



#### P. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.

#### **Q.** Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a Single Life Annuity or the 50%, 66 2/3%, 75% and 100% Joint and Survivor options. A Social Security option is also available for members retiring prior to the time they are eligible for Social Security retirement benefits.

### **R. Vested Termination**

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service.
Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. For Tier 1 members, benefit begins on the date that would have been the member's Normal Retirement date had they continued employment. For Tier 2 members, benefit begins at age 55. Alternatively, members can elect a reduced Early Retirement benefit any time after age 50.
Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the deferred vested retirement benefit shall be limited to a

maximum benefit cap, initially set at \$95,000 per year (\$99,339 per year as of October 1, 2022), applied to the normal retirement benefit before reflecting any reductions for early retirement.

## Normal Form

of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: Each member who retires on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1<sup>st</sup> of each year beginning 5 years after retirement.

Members terminating employment with less than 10 years of Credited Service will receive a refund of their own accumulated contributions.

#### S. Refunds

Eligibility: All members terminating employment with less than 10 years of Credited Service are eligible. Optionally, vested members (those with 10 or more years of Credited Service) may elect a refund in lieu of the vested benefits otherwise due.

Benefit: Refund of the member's contributions.



### T. Member Contributions

12% of Compensation.

Effective October 1, 2023, DROP participants electing to remain in DROP longer than five years shall resume making employee "pick-up" contributions during years 6 through 8 at a rate of 6% of Compensation, with 5% of Compensation allocated towards funding the COLA and the remaining 1% applied toward the unfunded liabilities in the Pension Trust Fund.

### **U. Employer Contributions**

Chapter 175 Premium Tax Refunds and any additional amount determined by the actuary needed to fund the plan properly according to State laws.

### V. Cost of Living Increases

Each retiree, beneficiary and disability retiree who retires or enters the DROP on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1<sup>st</sup> of each year beginning 5 years after retirement.

Effective October 1, 2023, each retiree who enters the DROP on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1<sup>st</sup> of each year beginning at the later of (i) 5 years after retirement, or (ii) the date of separation from service (for DROP participants who elect to extend their DROP participation period longer than five years).

## W. 13<sup>th</sup> Check

In years in which a cumulative net actuarial gain has been determined, there shall be payable an ad-hoc thirteenth check paid in December.

#### X. Deferred Retirement Option Plan

Eligibility: Plan members who have less than 30 years of Credited Service (33 years of Credited Service effective October 1, 2023) but have met one of the following criteria are eligible for the DROP:

(1) age 55 with 10 years of Credited Service, or(2) 20 years of Credited Service (25 years for Tier 2 members) regardless of age.

Members who meet eligibility must submit a written election to participate in the DROP.

Benefit: The member's Credited Service and FAC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and FAC.



| Maximum<br>DROP Period: | The earlier of 5 years of participation in the DROP or 30 years of employment.   |
|-------------------------|--|
|                         | Effective October 1, 2023, the maximum period of DROP participation is the earlier of 8 years of participation in the DROP or 33 years of employment.  |
| Interest<br>Credited:   | For pension deposits into the DROP during years one through five, the member's DROP account is credited at an interest rate based upon the option chosen by the member. Members must elect from 1 of the 3 following options:  |
|                         | <ol> <li>Gain or loss at the same rate earned by the Plan, or</li> <li>Guaranteed rate of 7%, or</li> <li>The rate earned by a self-directed account utilizing mutual funds selected by the Board.</li> </ol>  |
|                         | Effective October 1, 2023, for DROP participants electing to remain in the DROP longer than five years, pension deposits into the DROP during years 6 through 8 are credited at the same rate earned by the Plan, no less than 0% and no more than 8%.   |
| Normal Form of Benefit: | Options include a lump sum or equal periodic payments.   |
| COLA:                   | Each member who enters the DROP on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year beginning 5 years after retirement.  |
|                         | Effective October 1, 2023, each member who enters the DROP on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1 <sup>st</sup> of each year beginning at the later of (i) 5 years after retirement, or (ii) the date of separation from service (for DROP participants who elect to extend their DROP participation period longer than five years). |
|                         |  |

## Y. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Boynton Beach Municipal Firefighters' Pension Trust Fund liability if continued beyond the availability of funding by the current funding source.

## Z. Changes from Previous Valuation

There have been the following revisions in benefits since the previous valuation:

• Effective October 1, 2023, the maximum period of DROP participation is the earlier of 8 years of participation in the DROP or 33 years of employment. DROP participants electing to remain in the DROP longer than five years shall resume making employee "pick-up" contributions during years 6 through 8 at the rate of 6% of Compensation, with 5% of Compensation allocated toward funding the COLA and the remaining 1% applied toward the unfunded liabilities in the Pension Trust Fund.



- Effective October 1, 2023, annual COLA increases will commence beginning on the October 1st following the later of (i) five years after retirement, or (ii) the date of separation from service (for DROP participants who elect to extend their DROP participation period longer than five years).
- Section 18-194(b) on the "Consolidated Deferred Retirement Option Plan" for members hired on or after January 1, 2020 is eliminated. For pension deposits into the DROP during years one through five, interest will be credited under one of the following three options elected by the member at retirement: (1) Gain or loss at the same rate earned by the Plan; (2) Guaranteed rate of 7%; or (3) The rate earned by a self-directed account utilizing mutual funds selected by the Board.
- Effective October 1, 2023, for DROP participants electing to remain in the DROP longer than five years, pension deposits into the DROP during years 6 through 8 will be credited with interest at the same annual rate of return earned by investments in the Plan, net of investment expenses, but no less than 0% and no more than 8% per year.

