

# City of Wilton Manors Volunteer Firefighters' Retirement System

Actuarial Valuation Report as of October 1, 2019





May 22, 2020

Board of Trustees  
City of Wilton Manors Volunteer Firefighters' Retirement System  
Wilton Manors, FL

**Re: City of Wilton Manors Volunteer Firefighters' Retirement System  
Actuarial Valuation as of October 1, 2019 and Actuarial Disclosures**

Dear Board Members:

The results of the October 1, 2019 Annual Actuarial Valuation of the City of Wilton Manors Volunteer Firefighters Retirement System are presented in this report. This report does not reflect the recent and still developing impact of COVID-19, which may significantly impact demographic and economic experience.

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, 2020, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the fiscal year ending 2019. This report also includes preliminary information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the fiscal year ending 2020. This report should not be relied on for any purpose other than the purposes 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 not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

The findings in this report are based on data or other information through September 30, 2019. The valuation was based upon information furnished by the Plan Administrator concerning Retirement Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal 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.

In addition, this report was prepared using certain assumptions approved by the Board and prescribed under Florida Statutes as described in the section of this report entitled Actuarial Assumptions and Methods. The prescribed assumptions are the assumed mortality rates detailed in the Actuarial Assumptions and 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 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 Retirement Plan 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.

Theora Braccialarghe and Melissa Moskovitz 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

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## **SECTION I**

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### **INTRODUCTION**

## DISCUSSION

### TOTAL REQUIRED CONTRIBUTION

The required City contribution for the plan year ending September 30, 2019, is \$0, as shown below.

|   | Required Employer Contribution |
|---|--------------------------------|
| Total Required Employer Contribution    | \$ 94,996                      |
| Funding Standard Account Credit Balance | 508,935                        |
| Expected State Premium Tax Refund       | 83,904                         |
| Allocation to Retirement System         | 50%                            |
| Allocation to Share Plan                | 50%                            |
| Remaining City Contribution             | 0                              |

Beginning October 1, 2016, the funding standard account is being used to fund the Retirement System. The funding standard account was initialized in 2016 with the accumulated excess State money, and receives State contributions which are allocated to the Retirement System.

When the total market value, including the funding standard account credit balance is at least 100% of the actuarial present value of benefits, 50% of the premium tax revenue received for the next year will be allocated to the Retirement System and 50% will be allocated to the Share Plan.

This year, the Retirement System is 106.4% funded on this basis, so 50% of the premium tax revenue received in 2020 will be allocated to the Retirement System via the funding standard account, and 50% will be allocated to the Share Plan.

### EXPERIENCE

There was a very small actuarial gain this year, primarily due to investment earnings. The return on a valuation asset basis was 6.1% as compared to the assumed rate of 6.0%. The investment return on a net market value basis for the plan year ending in 2019 was 5.5%. The difference between that and 6.0% is being spread over five years, while portions of experience from the previous four years are being recognized this year.



## **CHANGES IN BENEFITS**

There were no changes in plan provisions in connection with this valuation.

## **CHANGES IN ACTUARIAL METHODS AND ASSUMPTIONS**

There were no changes in actuarial methods and assumptions in connection with this valuation.

## **FUNDED RATIO**

The funded ratio, one measure of the Plan's financial status, is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability. The funded ratio is 71.0% on a valuation asset basis compared to 69.2% last year.

## **VARIABILITY OF FUTURE CONTRIBUTION RATES**

The Actuarial Cost Method used to determine the contributions is intended to produce contributions which are generally level. Even so, when experience differs from the assumptions, as it often does, the required contribution can vary significantly from year-to-year.

Over time, if the year-to-year gains and losses offset each other, the contribution would be expected to return to the current level, but this does not always happen.

The market value of assets was about \$77,000 more than the actuarial value of assets as of the valuation date. This difference will be recognized gradually over the next few years in the absence of offsetting losses. If the Market Value had been the basis for the valuation, the total required contribution would have been approximately \$87,000 and the funded ratio would have been 75.7%.

## **RECOMMENDATIONS**

Steps have been taken to improve the funded position of the plan. In connection with the October 1, 2016 valuation, the amortization period was shortened and the investment return assumption was lowered. We recommend continuing to monitor all of the assumptions, with particular attention to the investment return assumption.

## **CONCLUSION**

The remainder of this Report covers detailed actuarial valuation results, financial information, other 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;
2. Asset/Liability mismatch – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. 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;
4. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
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:

|   | <u>2019</u> | <u>2018</u> |
|---|-------------|-------------|
| Ratio of active members to retirees and beneficiarie: | 0.1         | 0.1         |
| Ratio of net cash flow to market value of assets      | -0.05       | -0.03       |

## 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 super-mature 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.



## RECENT HISTORY OF PLAN CHANGES

1. Effective October 1, 2007 the normal cost for administrative expenses is the average of the past two years rather than the actual amount paid the preceding year.
2. Effective October 1, 2008, the valuation asset method was changed to one which smooths the excess/(shortfall) of actual investment earnings as compared to expected earnings over five years. Additionally, the method of determining the normal cost for administrative expenses was changed from a two year average of actual expenses to a four year average of actual expenses.
3. Effective October 1, 2014, the mortality rates were changed from the RP-2000 Combined Healthy Participant Mortality Tables for males and females, projected to 2005 to the fully generational RP-2000 Combined Healthy Participant Mortality Table for males and females, with a five-year age set-forward for impaired mortality, using projection scale AA to project mortality improvement to all future years from the year 2000. Additionally, the assumed rate of investment return on plan assets was changed from an 8.0% gross investment return to a 7.0% assumption net of investment expenses. Finally, the remaining amortization period has been shortened to 20 years, with the amortization period for new bases decreasing by one year per year.
4. Effective May 24, 2016, a Share Plan was adopted to be funded by State premium tax revenue, contingent on the funded status of the System, and a funding standard account was established.
5. Effective October 1, 2016, the mortality rates were changed from the RP-2000 Combined Healthy Participant Mortality Tables for males and females, using scale AA to project mortality improvement to all years after 2000, to the mortality rates used by the Florida Retirement System (FRS) for Special Risk Class members in the July 1, 2016 actuarial valuation. Additionally, the assumed rate of investment return on plan assets was changed from 7.0% net investment expenses to 6.0% net investment expenses, and the maximum remaining amortization period for all bases was shortened to 15 years.
6. Effective October 1, 2016, the City and membership consented to use available premium tax revenue to improve the funding status of the Retirement System and to create a defined contribution share plan for the allocation of future premium tax revenue once the Retirement System is at least 100% funded on a market value basis including the funding standard account.
7. Effective October 1, 2016, in connection with the mutual consent agreement regarding insurance premium tax revenue, a funding standard account (FSA) was established using the accumulated excess State money. The FSA will also receive future state money allocated to funding the Retirement System.
8. Effective October 1, 2016, the assumed rate of investment earnings was reduced from 7.0% net of investment expenses to 6.0% net of investment expenses and the remaining amortization period was shortened for all bases to a maximum of 15 years.



**SECTION II**

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**VALUATION RESULTS**

| <b>COMPARATIVE SUMMARY OF VALUATION RESULTS AS OF OCTOBER 1</b>  |              |              |
|--|--------------|--------------|
|  | <b>2019</b>  | <b>2018</b>  |
| <b>Covered Group</b>   |              |              |
| A. Active Participants   | 1            | 1            |
| Retirees, Disabilities, Beneficiaries<br>and Vested Terminations | 9            | 9            |
| <b>Long Range Cost</b>   |              |              |
| B. Actuarial Present Value of Projected<br>Benefits              | \$ 1,646,876 | \$ 1,646,824 |
| C. Actuarial Present Value of Future Normal<br>Costs             | 3,555        | 3,552        |
| D. Actuarial Accrued Liability (AAL): B-C                        | 1,643,321    | 1,643,272    |
| E. Valuation Assets  | 1,167,118    | 1,136,643    |
| F. Unfunded Actuarial Accrued Liability<br>(UAAL): D - E         | 476,203      | 506,629      |
| <b>Current Cost</b>  |              |              |
| G. Payment Required to Amortize UAAL                             | \$ 50,749    | \$ 51,368    |
| H. Total Normal Cost (for current year)                          | 38,870       | 38,741       |
| I. Plan Year to which Contributions Apply                        | 2019/20      | 2018/19      |
| J. Interest to the end of the year                               | 5,377        | 5,407        |
| K. Total Required Contributions, with<br>Interest                | 94,996       | 95,516       |
| L. Funding Standard Account Credit Balance                       | 508,935      | 530,659      |
| M. Expected State Premium Tax Refund                             | 83,904       | 87,830       |
| 1. Percent to Share Plan   | 50%          | 50%          |
| 2. Percent to Retirement System                                  | 50%          | 50%          |
| N. Required City Contribution                                    | 0            | 0            |



| <b>DERIVATION OF NORMAL COST AS OF OCTOBER 1</b>                       |              |              |
|--|--------------|--------------|
|  | <b>2019</b>  | <b>2018</b>  |
| A. Entry Age Normal Cost for Service Retirement                        |              |              |
| Benefits   | \$ 3,010     | \$ 3,007     |
| Vesting Benefits   | 314          | 314          |
| Preretirement Death Benefits   | 97           | 97           |
| Disability Benefits  | 134          | 134          |
| Return of Contributions  | 0            | 0            |
| Total  | <u>3,555</u> | <u>3,552</u> |
| B. Normal Cost for Administrative Expense                              | 35,315       | 35,189       |
| C. Expected Member Contributions                                       | 0            | 0            |
| D. Employer Normal Cost for Plan Year Beginning October 1: (A)+(B)-(C) | 38,870       | 38,741       |

| <b>PRESENT VALUE OF PROJECTED BENEFITS AS OF OCTOBER 1</b> |                  |                  |
|--|------------------|------------------|
|  | <b>2019</b>      | <b>2018</b>      |
| A. Present Value of Future Salaries                        | \$ N/A           | \$ N/A           |
| B. Present Value of Projected Benefits                     |                  |                  |
| 1. Active Members  |                  |                  |
| Service Retirement Benefits                                | 254,870          | 248,651          |
| Vesting Benefits   | 0                | 0                |
| Preretirement Death Benefits                               | 0                | 0                |
| Disability Benefits  | 0                | 0                |
| Return of Contributions                                    | 0                | 0                |
| Total  | <u>254,870</u>   | <u>248,651</u>   |
| 2. Inactive Members  |                  |                  |
| Service Retirees   | 1,237,678        | 1,253,369        |
| Disability Retirees  | 0                | 0                |
| Beneficiaries  | 0                | 0                |
| Terminated Vested  | 154,328          | 144,804          |
| Total  | <u>1,392,006</u> | <u>1,398,173</u> |
| 3. Grand Total   | 1,646,876        | 1,646,824        |



## LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

The Unfunded Actuarial Accrued Liability (UAAL) is being amortized as a level dollar amount over the number of years remaining in the amortization period. Details relating to the UAAL are as follows:

| UAAL AS OF OCTOBER 1, 2019      |                 |           |                   |            |          |
|---------------------------------|-----------------|-----------|-------------------|------------|----------|
| Original                        |                 |           | Current           |            |          |
| Date & Source                   | Amort.<br>Years | Amount    | Years<br>Remainin | Amount     | Payment  |
| 10/1/98 UFAAL                   | 30              | \$ 20,672 | 9                 | \$ (6,967) | \$ (967) |
| 2001 Amendment                  | 30              | 136,484   | 12                | 51,046     | 5,744    |
| 10/1/01 Change Method           | 30              | (32,181)  | 12                | (12,040)   | (1,354)  |
| 10/1/03 Loss                    | 30              | 25,189    | 12                | 13,887     | 1,563    |
| 10/1/03 Amendment               | 30              | 303,320   | 12                | 167,233    | 18,818   |
| 10/1/04 Gain                    | 30              | (22,267)  | 12                | (13,237)   | (1,489)  |
| 10/1/05 Gain                    | 30              | (5,030)   | 12                | (3,178)    | (358)    |
| 10/1/05 Assumption Change       | 30              | 21,786    | 12                | 13,764     | 1,549    |
| 10/1/06 Loss                    | 30              | 5,458     | 12                | 3,517      | 396      |
| 10/1/06 Member Status<br>Change | 15              | 39,702    | 2                 | 6,233      | 3,209    |
| 10/1/07 Gain                    | 30              | (25,431)  | 12                | (16,918)   | (1,904)  |
| 10/1/08 Loss                    | 30              | 129,503   | 12                | 87,856     | 9,886    |
| 10/1/08 Method Change           | 15              | (108,520) | 4                 | (33,605)   | (9,149)  |
| 10/1/09 Loss                    | 30              | 41,341    | 12                | 28,521     | 3,210    |
| 10/1/10 Loss                    | 30              | 48,460    | 12                | 35,368     | 3,980    |
| 10/1/11 Loss                    | 30              | 38,103    | 12                | 28,655     | 3,224    |
| 10/1/12 Loss                    | 30              | 12,304    | 12                | 9,452      | 1,063    |
| 10/1/13 Gain                    | 30              | (40,786)  | 12                | (31,757)   | (3,573)  |
| 10/1/14 Gain                    | 30              | (72,876)  | 12                | (58,135)   | (6,541)  |
| 10/1/14 Assumption Change       | 30              | 172,401   | 12                | 137,521    | 15,475   |
| 10/1/15 Gain                    | 19              | (26,414)  | 12                | (21,842)   | (2,458)  |
| 10/1/16 Gain                    | 18              | (56,587)  | 12                | (48,845)   | (5,497)  |
| 10/1/16 Assumption Change       | 18              | 178,876   | 12                | 154,412    | 17,375   |
| 10/1/17 Loss                    | 15              | 3,053     | 13                | 2,780      | 297      |
| 10/1/18 Gain                    | 15              | (11,648)  | 14                | (11,148)   | (1,131)  |
| 10/1/19 Gain                    | 15              | (6,370)   | 15                | (6,370)    | (619)    |
|                                 |                 |           |                   | 476,203    | 50,749   |



## LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

(continued)

| Amortization Schedule Illustration |                |
|------------------------------------|----------------|
| Year Ended                         | Projected UAAL |
| 2019                               | \$ 476,203     |
| 2020                               | 450,985        |
| 2021                               | 424,254        |
| 2022                               | 399,319        |
| 2023                               | 372,888        |
| 2028                               | 160,285        |
| 2033                               | (619)          |
| 2034                               | 0              |

## SHARE PLAN ALLOCATION

The City and membership agreed to use the accumulated excess premium tax revenue as of May 2016 to supplement funding of the Retirement System and to create a share plan for the allocation of future premium tax revenue when certain goals are reached. The accumulated excess premium tax revenue was used to initialize the funding standard account for the System.

When the total market value of the fund, including the funding standard account credit balance, is at least 100% of the actuarial present value of benefits, 50% of the premium tax revenue received for the next year will be allocated to the System and 50% will be allocated to the share plan.

When the market value on this basis is at least 110% of the actuarial present value of benefits, 100% of the premium tax revenue received for the next year will be allocated to the share plan.

This year, the system is 106.4% funded on this basis, so 50% of the premium tax revenue received in 2020 will be allocated to the Retirement System and 50% will be allocated to the Share Plan.

| <b>Determination of Share Plan Allocation</b>         |                |
|---|----------------|
|   | 2019           |
| 1. Actuarial Present Value of Benefits                | \$ 1,646,876   |
| 2. Net Market Value                                   | 1,243,897      |
| Funding Standard Account Credit Balance               | <u>508,935</u> |
| Total   | 1,752,832      |
| 3. Funded Ratio                                       | 106.4%         |
| 4. Allocation of State Money to be Received Next Year |                |
| a. Allocation to Share Plan                           | 50%            |
| b. Allocation to Retirement System                    | 50%            |

## FUNDING STANDARD ACCOUNT

| Valuation Date<br>Plan Year Ended                     | 10/1/19<br>9/30/20 | 10/1/18<br>9/30/19 | 10/1/17<br>9/30/18 |
|---|--------------------|--------------------|--------------------|
| <b>Interest Rate:</b>                                 | 6.00%              | 6.00%              | 6.00%              |
| <b>Charges</b>  |                    |                    |                    |
| a. Prior Year Funding Deficiency                      | \$ 0               | \$ 0               | \$ 0               |
| b. Normal Cost  | 38,870             | 38,741             | 35,570             |
| c. Amortization Charges, less<br>Amortization Credits | 50,749             | 51,368             | 52,500             |
| d. Interest on a,b,c                                  | 5,377              | 5,407              | 5,284              |
| e. Total Charges                                      | <u>94,996</u>      | <u>95,516</u>      | <u>93,354</u>      |
| <b>Credits</b>  |                    |                    |                    |
| f. Prior Year Credit Balance                          | 508,935            | 530,659            | 547,262            |
| g. Accumulated Excess State Money                     |                    | 0                  | 0                  |
| h. State Contributions                                |                    | 41,952             | 43,915             |
| i. Interest on f,g,h                                  |                    | <u>31,840</u>      | <u>32,836</u>      |
| j. Total Credits                                      |                    | 604,451            | 624,013            |
| <b>Balance</b>  |                    |                    |                    |
| k. Credit Balance                                     |                    | 508,935            | 530,659            |
| l. Funding Deficiency                                 |                    | 0                  | 0                  |

| RECENT HISTORY OF VALUATION RESULTS |                |                  |                           |                                      |                      |
|-------------------------------------|----------------|------------------|---------------------------|--------------------------------------|----------------------|
| Valuation Date                      | Number of      |                  | Actuarial Value of Assets | Unfunded Actuarial Accrued Liability | Employer Normal Cost |
|                                     | Active Members | Inactive Members |                           |                                      |                      |
| 10/1/19                             | 1              | 9                | \$ 1,167,118              | \$ 476,203                           | \$ 38,870            |
| 10/1/18                             | 1              | 9                | 1,136,643                 | 506,629                              | 38,741               |
| 10/1/17                             | 1              | 9                | 1,101,597                 | 541,443                              | 35,570               |
| 10/1/16                             | 1              | 9                | 1,081,636                 | 560,117                              | 34,298               |
| 10/1/15                             | 1              | 9                | 1,012,862                 | 455,147                              | 34,687               |
| 10/1/14                             | 1              | 9                | 952,883                   | 497,449                              | 33,257               |
| 10/1/13                             | 2              | 8                | 841,280                   | 409,878                              | 38,572               |
| 10/1/12                             | 2              | 8                | 744,775                   | 457,828                              | 39,498               |
| 10/1/11                             | 2              | 8                | 699,202                   | 455,255                              | 37,357               |
| 10/1/10                             | 2              | 8                | 679,750                   | 429,224                              | 36,481               |



## 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 gains (losses) for this and previous years are as follows:

|  |                |
|--|----------------|
| A. Derivation of Actuarial Gain / (Loss)                               |                |
| Unfunded Actuarial Accrued Liability (UAAL) Previous                   |                |
| 1. Valuation   | \$ 506,629     |
| 2. Normal Cost (NC) Previous Valuation                                 | 38,741         |
| 3. Contributions Previous Year   | 90,109         |
| 4. Interest on:  |                |
| a. UAAL and NC   | 32,719         |
| b. Contributions   | <u>5,407</u>   |
| c. Net Total: (a) - (b)  | 27,312         |
| 5. Expected UAAL Current Year Before Changes:<br>(1) + (2) - (3) + (4) | 482,573        |
| 6. Change Due to Plan Amendments                                       | 0              |
| 7. Change Due to Assumptions and Methods                               | 0              |
| 8. Expected UAAL Current Year After Changes: (5)+(6)+(7)               | 482,573        |
| 9. Actual UAAL Current Year  | <u>476,203</u> |
| 10. Actuarial Gain/(Loss): (8) - (9)                                   | 6,370          |
| B. Approximate Portion of Gain/(Loss) Due to Investments               | 4,118          |
| C. Approximate Portion of Gain/(Loss) Due to Liabilities: (A)-(B)      | \$ 2,252       |

| Year Ending | Actuarial Gain (Loss) |
|-------------|-----------------------|
| 9/30/19     | \$ 6,370              |
| 9/30/18     | 11,648                |
| 9/30/17     | (5,943)               |
| 9/30/16     | 56,587                |
| 9/30/15     | 26,414                |
| 9/30/14     | 72,876                |
| 9/30/13     | 40,786                |
| 9/30/12     | (12,304)              |
| 9/30/11     | (38,103)              |
| 9/30/10     | (48,460)              |

The investment return assumption has considerable impact on the cost of the Plan so it is important that it is in line with actual experience. The following table shows the fund earnings on actuarial value of assets compared to the assumed rates for the last few years:

| Year Ended | Investment Rate of Return |         | Salary Increases |
|------------|---------------------------|---------|------------------|
|            | Actual                    | Assumed |                  |
| 9/30/19    | 6.1 %                     | 6.0 %   | N/A              |
| 9/30/18    | 6.7                       | 6.0     | N/A              |
| 9/30/17    | 5.7                       | 6.0     | N/A              |
| 9/30/16    | 7.0                       | 7.0     | N/A              |
| 9/30/15    | 6.6                       | 7.0     | N/A              |
| 9/30/14    | 10.6                      | 8.0     | N/A              |
| 9/30/13    | 8.7                       | 8.0     | N/A              |
| 9/30/12    | 3.7                       | 8.0     | N/A              |
| 9/30/11    | 1.9                       | 8.0     | N/A              |
| 9/30/10    | 2.6                       | 8.0     | N/A              |

| SCHEDULE OF FUNDING PROGRESS |                               |                                       |                             |                      |                     |  |
|------------------------------|-------------------------------|---------------------------------------|-----------------------------|----------------------|---------------------|--|
| Actuarial Valuation Date     | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (UAAL) (b)-(a) | Funded Ratio (a)/(b) | Covered Payroll (c) | UAAL As % of Covered Payroll [(b)-(a)]/(c) |
| 10/1/19                      | \$ 1,167,118                  | \$ 1,643,321                          | \$ 476,203                  | 71.0 %               | N/A                 | N/A  |
| 10/1/18                      | 1,136,643                     | 1,643,272                             | 506,629                     | 69.2                 | N/A                 | N/A  |
| 10/1/17                      | 1,101,597                     | 1,643,040                             | 541,443                     | 67.0                 | N/A                 | N/A  |
| 10/1/16                      | 1,081,636                     | 1,641,753                             | 560,117                     | 65.9                 | N/A                 | N/A  |
| 10/1/15                      | 1,012,862                     | 1,468,009                             | 455,147                     | 69.0                 | N/A                 | N/A  |
| 10/1/14                      | 952,883                       | 1,450,332                             | 497,449                     | 65.7                 | N/A                 | N/A  |
| 10/1/13                      | 841,280                       | 1,251,158                             | 409,878                     | 67.2                 | N/A                 | N/A  |
| 10/1/12                      | 744,775                       | 1,202,603                             | 457,828                     | 61.9                 | N/A                 | N/A  |
| 10/1/11                      | 699,202                       | 1,154,457                             | 455,255                     | 60.6                 | N/A                 | N/A  |
| 10/1/10                      | 679,750                       | 1,108,974                             | 429,224                     | 61.3                 | N/A                 | N/A  |

**FASB NO. 35 INFORMATION AS OF OCTOBER 1**

|  | 2019             | 2018             |
|--|------------------|------------------|
| <b>A. Actuarial Present Value of Accumulated Plan Benefits</b>                               |                  |                  |
| 1. Vested Benefits   |                  |                  |
| a. Members Currently Receiving Benefits  | \$ 1,237,678     | \$ 1,253,369     |
| b. Terminated Vested Members   | 154,328          | 144,804          |
| c. Other Members   | 250,513          | 244,250          |
| d. Total   | <u>1,642,519</u> | <u>1,642,423</u> |
| 2. Non-Vested Benefits   | 0                | 0                |
| 3. Total: (1) + (2)  | 1,642,519        | 1,642,423        |
| 4. Accumulated Contributions of Active Members   | N/A              | N/A              |
| <b>B. Statement of Change in Accumulated Plan Benefits</b>                                   |                  |                  |
| 1. Total Value at Beginning of Year  | 1,642,423        | 1,642,144        |
| 2. Increase (decrease) during year attributable to:  |                  |                  |
| a. Plan Amendment  | 0                | 0                |
| b. Change in actuarial assumptions & methods   | 0                | 0                |
| c. Benefits paid and contribution refunds  | (124,604)        | (93,863)         |
| d. Other, including latest member data, benefits accumulated and decrease in discount period | 124,700          | 94,142           |
| e. Net Increase  | <u>96</u>        | <u>279</u>       |
| 3. Total Value at End of Year  | 1,642,519        | 1,642,423        |
| <b>C. Assumed Rate of Return</b>   | 6.00%            | 6.00%            |
| <b>D. Market Value of Assets less Credit Balance &amp; Reserves</b>                          | 1,243,897        | 1,222,284        |
| <b>E. Funded Ratio</b>   | 75.7%            | 74.4%            |

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

| Fiscal year ending September 30,  | <b>2020*</b>        | <b>2019</b>         | <b>2018</b>         | <b>2017</b>         | <b>2016</b>         | <b>2015</b>         | <b>2014</b>         |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Total pension liability   |                     |                     |                     |                     |                     |                     |                     |
| Service Cost  | \$ 3,555            | \$ 3,552            | \$ 3,548            | \$ 2,785            | \$ 2,784            | \$ 2,781            | \$ 3,420            |
| Interest  | 95,786              | 98,032              | 96,276              | 136,401             | 132,943             | 127,765             | 124,087             |
| Benefit Changes   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Difference between actual & expected experience                           | (16,878)            | (52,308)            | (5,234)             | (547,430)           | (7,955)             | 28,813              | 50,183              |
| Assumption Changes  | -                   | -                   | -                   | 157,023             | -                   | 172,401             | -                   |
| Benefit Payments  | (132,744)           | (124,604)           | (93,863)            | (93,206)            | (79,458)            | (76,201)            | (73,671)            |
| Refunds   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Other - Increase in Share Plan Reserve                                    | 41,952              | 41,952              | 43,915              | -                   | -                   | -                   | -                   |
| Net Change in Total Pension Liability                                     | (8,329)             | (33,376)            | 44,642              | (344,427)           | 48,314              | 255,559             | 104,019             |
| Total Pension Liability - Beginning                                       | 1,659,243           | 1,692,619           | 1,647,977           | 1,992,404           | 1,944,090           | 1,688,531           | 1,584,512           |
| Total Pension Liability - Ending (a)                                      | <u>\$ 1,650,914</u> | <u>\$ 1,659,243</u> | <u>\$ 1,692,619</u> | <u>\$ 1,647,977</u> | <u>\$ 1,992,404</u> | <u>\$ 1,944,090</u> | <u>\$ 1,688,531</u> |
| Plan Fiduciary Net Position   |                     |                     |                     |                     |                     |                     |                     |
| Contributions - (from Employer)   | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                |
| Contributions - (from State)  | 83,904              | 83,904              | 87,830              | 93,880              | 113,066             | 143,468             | 162,399             |
| Contributions - Member  | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Net Investment Income   | 103,479             | 93,588              | 187,918             | 163,275             | 114,245             | (78,303)            | 157,260             |
| Benefit Payments  | (132,744)           | (124,604)           | (93,863)            | (93,206)            | (79,458)            | (76,201)            | (73,671)            |
| Refunds   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Administrative Expense  | (35,315)            | (41,063)            | (40,155)            | (36,978)            | (23,065)            | (40,557)            | (27,489)            |
| Other   | -                   | -                   | -                   | 1                   | (1)                 | -                   | -                   |
| Net Change in Plan Fiduciary Net Position                                 | 19,324              | 11,825              | 141,730             | 126,972             | 124,787             | (51,593)            | 218,499             |
| Plan Fiduciary Net Position - Beginning                                   | 1,808,683           | 1,796,858           | 1,655,128           | 1,528,156           | 1,403,369           | 1,454,962           | 1,236,463           |
| Plan Fiduciary Net Position - Ending (b)                                  | <u>\$ 1,828,007</u> | <u>\$ 1,808,683</u> | <u>\$ 1,796,858</u> | <u>\$ 1,655,128</u> | <u>\$ 1,528,156</u> | <u>\$ 1,403,369</u> | <u>\$ 1,454,962</u> |
| Net Pension Liability - Ending (a) - (b)                                  | (177,093)           | (149,440)           | (104,239)           | (7,151)             | 464,248             | 540,721             | 233,569             |
| Plan Fiduciary Net Position as a Percentage<br>of Total Pension Liability | 110.73 %            | 109.01 %            | 106.16 %            | 100.43 %            | 76.70 %             | 72.19 %             | 86.17 %             |
| Covered Payroll   | N/A                 |
| Net Pension Liability as a Percentage<br>of Covered Payroll               | N/A                 |

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

\*\* The Plan is not pay based, as the members are volunteer firefighters.



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

| FY Ending<br>September 30 | Total<br>Pension<br>Liability | Plan Net<br>Position | Net Pension<br>Liability | Plan Net Position<br>as a % of Total<br>Pension Liability | Covered<br>Payroll | Net Pension<br>Liability as a % of<br>Covered Payroll |
|---------------------------|-------------------------------|----------------------|--------------------------|---|--------------------|---|
| 2020*                     | \$ 1,650,914                  | \$ 1,828,007         | \$(177,093)              | 110.73%   | N/A                | N/A   |
| 2019                      | 1,659,243                     | 1,808,683            | (149,440)                | 109.01%   | N/A                | N/A   |
| 2018                      | 1,692,619                     | 1,796,858            | (104,239)                | 106.16%   | N/A                | N/A   |
| 2017                      | 1,647,977                     | 1,655,128            | (7,151)                  | 100.43%   | N/A                | N/A   |
| 2016                      | 1,992,404                     | 1,528,156            | 464,248                  | 76.70%  | N/A                | N/A   |
| 2015                      | 1,944,090                     | 1,403,369            | 540,721                  | 72.19%  | N/A                | N/A   |
| 2014                      | 1,688,531                     | 1,454,962            | 233,569                  | 86.17%  | N/A                | N/A   |

Note: The Plan is not pay based, as the members are volunteer firefighters.

\*These figures are estimates only until actual figures are provided after the end of each fiscal year.

## **NOTES TO NET PENSION LIABILITY**

### **GASB Statement No. 67**

#### **Significant Assumptions and Methods used to Measure the Net Pension Liability**

The Total Pension Liability was determined by the actuarial valuation as of October 1, 2019, using the following actuarial assumptions and methods, applied to all periods included in the measurement:

|                           |   |
|---------------------------|---|
| Actuarial Cost Method     | Entry Age Normal  |
| Salary Increases          | N/A. This Plan is not pay based   |
| Investment Rate of Return | 6%, net of investment expenses  |
| COLA                      | None  |
| Retirement Age            | 100% retirement one half year after reaching age 55 or age 50 with 20 years of service  |
| Mortality                 | RP-2000 mortality tables with collar adjustments and generational projections using scale BB as used by the Florida Retirement System for the Special Risk Class members in the July 1, 2018 actuarial valuation. |

Standard actuarial update procedures were used to “roll forward” the Total Pension Liability to September 30, 2020, the Plan’s fiscal year end.

#### **Other Information**

See Discussion of Valuation Results in Section I.



**SCHEDULE OF CONTRIBUTIONS**  
**GASB Statement No. 67**

| <u>FY Ending</u><br><u>September 30,</u> | <u>Actuarially</u><br><u>Determined</u><br><u>Contribution</u> | <u>Actual</u><br><u>Contribution</u> | <u>Contribution</u><br><u>Deficiency</u><br><u>(Excess)</u> | <u>Covered</u><br><u>Payroll**</u> | <u>Actual Contribution</u><br><u>as a % of</u><br><u>Covered Payroll</u> |
|--|--|--------------------------------------|---|------------------------------------|--|
| 2020*                                    | \$ 94,996  | \$ 83,904                            | \$ 11,092   | NA                                 | NA   |
| 2019                                     | 95,516   | 83,904                               | 11,612  | NA                                 | NA   |
| 2018                                     | 92,659   | 87,830                               | 4,829   | NA                                 | NA   |
| 2017                                     | 91,007   | 93,880                               | (2,873)   | NA                                 | NA   |
| 2016                                     | 78,859   | 85,547                               | (6,688)   | NA                                 | NA   |
| 2015                                     | 80,349   | 85,547                               | (5,198)   | NA                                 | NA   |
| 2014                                     | 79,117   | 85,547                               | (6,430)   | NA                                 | NA   |

Note: The Plan is not pay based, as the members are volunteer firefighters.

\*These figures are estimates only until actual figures are provided after the end of each fiscal year.

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

**Valuation Date:** October 1, 2019

Notes Actuarially determined contribution rates are calculated as of the beginning of the fiscal year in which contributions are reported.

**Methods and Assumptions Used to Determine Contribution Rates:**

|                               |  |
|-------------------------------|--|
| Actuarial Cost Method         | Entry Age Normal   |
| Amortization Method           | Level Dollar, Closed   |
| Remaining Amortization Period | 15 years   |
| Asset Valuation Method        | 5-year smoothed market   |
| Salary Increases              | N/A  |
| Investment Rate of Return     | 6.00%  |
| Retirement Age                | 100% retirement one half year after reaching age 55 or age 50 with 20 years of service   |
| Mortality                     | RP-2000 mortality tables with blue collar adjustments and generational projections using scale BB as used by the Florida Retirement System for the Special Risk Class members in the July 1, 2018 actuarial valuation. |

**Other Information:** See Discussion of Valuation Results on Page 1



## SINGLE DISCOUNT RATE GASB Statement No. 67

A single discount rate of 6.00% 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 6.00%. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at the actuarially determined contribution rates. 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 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 6.00%, 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:

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

| 1% Decrease | Current Single Discount<br>Rate Assumption | 1% Increase |
|-------------|--|-------------|
| 5.00%       | 6.00%                                      | 7.00%       |
| \$7,517     | (\$177,093)                                | (\$331,349) |

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

# ACTUARIAL ASSUMPTIONS AND COST METHODS

## Assumptions

The active group is too small to provide statistically significant experience on which to base certain demographic assumptions. The retirement age assumption tracks the eligibility requirements for normal retirement. Mortality is based on a commonly used fully generational mortality table and projection scale.

### A. Mortality

RP-2000 Mortality Table for annuitants with future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 90% blue collar adjustment and a 10% white collar adjustment.

For disabled retirees, the mortality table is 60% of the RP-2000 Mortality Table for Disabled Annuitants, with ages set-back 4 years for males and set-forward 2 years for females, and 40% of the RP-2000 Healthy Annuitant Mortality Table with a white collar adjustment and no age set-back, both 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 Florida Statutes Chapter 112.63. Sample rates for non-disabled retired lives are shown below:

| Sample Ages in 2019 | % Mortality During the Year |             | Future Life Expectancy (years) |       |
|---------------------|-----------------------------|-------------|--------------------------------|-------|
|                     | Men                         | Women       | Men                            | Women |
| 50                  | 0.53%                       | 0.23%       | 34.12                          | 38.50 |
| 55                  | 0.66%                       | 0.32%       | 29.49                          | 33.48 |
| 60                  | 0.89%                       | 0.46%       | 24.92                          | 28.58 |
| 65                  | 1.28%                       | 0.72%       | 20.51                          | 23.83 |
| 70                  | 1.95%                       | 1.21%       | 16.36                          | 19.36 |
| 75                  | 3.17%                       | 2.04%       | 12.61                          | 15.26 |
| 80                  | 5.21%                       | 3.42%       | 9.37                           | 11.62 |
| Ref:                | 1422 x 1.00                 | 1420 x 1.00 | 896                            | 897   |

### B. Interest to be Earned by Fund

6% per direction from the Board of Trustees. The 6% rate is net of investment expenses, compounded annually.

### C. Allowances for Expenses

The average of actual administrative expenses incurred during the prior four plan years.

#### D. **Employee Withdrawal Rates**

Samples Rates are shown below:

| <u>Age</u> | <u>Males</u> | <u>Females</u> |
|------------|--------------|----------------|
| 20         | 7.5%         | 12.5%          |
| 25         | 5.0          | 7.5            |
| 30         | 3.5          | 5.0            |
| 35         | 2.5          | 3.5            |
| 40         | 1.5          | 2.5            |
| 45         | 1.0          | 1.5            |
| 50         | 0.5          | 1.0            |
| 55 & up    | 0.0          | 0.0            |

#### E. **Disability Rates**

Sample Rates are shown below:

| <u>Age</u> | <u>Males</u> | <u>Females</u> |
|------------|--------------|----------------|
| 20         | 0.17%        | 0.34%          |
| 25         | 0.17         | 0.34           |
| 30         | 0.17         | 0.34           |
| 35         | 0.18         | 0.36           |
| 40         | 0.20         | 0.40           |
| 45         | 0.23         | 0.46           |
| 50         | 0.29         | 0.58           |
| 55         | 0.39         | 0.78           |
| 60 & up    | 0.00         | 0.00           |

#### F. **Salary Increase Factors**

N/A – Flat benefit, not salary related.

#### G. **Retirement Age**

Participants are assumed to retire one half year after the valuation date at which they are first eligible for normal retirement. Participants who are beyond normal retirement date are assumed to retire one half year after the valuation date.

## H. **Valuation of Assets**

The assets are valued using an IRS approved smoothed market value. It recognizes the difference between actual and expected investment income at the rate of 20% per year. The actuarial value of assets is calculated as market value minus unrecognized excesses (shortages) of actual investment income as compared to expected. Actual contributions and expenses are used to determine the expected return. The actuarial value of assets is further adjusted to the extent necessary to fall within the corridor of 80% to 120% of the fair market value of plan assets.

## I. **Cost Method**

Entry Age Normal Actuarial Cost Method.

## J. **Changes From Previous Valuation**

None.

## K. **Rationale for Assumptions**

The size of the covered group is not large enough to provide statistically significant mortality experience. The mortality table is based on the assumptions used by FRS as required by Florida Statutes Chapter 112.63. Over 85% of the present value of benefits is for inactive lives, and the only two assumptions used to value inactive lives are mortality and investment return. All of the assumptions are reasonable for members of public pension plans in Florida.

## GLOSSARY OF TERMS

|  |  |
|--|--|
| <b><i>Actuarial Accrued Liability (AAL)</i></b>                  | The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.   |
| <b><i>Actuarial Assumptions</i></b>                              | 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.  |
| <b><i>Actuarial Cost Method</i></b>                              | 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.  |
| <b><i>Actuarial Equivalent</i></b>                               | Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.   |
| <b><i>Actuarial Present Value (APV)</i></b>                      | The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.   |
| <b><i>Actuarial Present Value of Future Benefits (APVFB)</i></b> | The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due. |
| <b><i>Actuarial Valuation</i></b>                                | The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Funded Ratio and the Actuarially Determined Employer Contribution (ADEC).   |
| <b><i>Actuarial Value of Assets</i></b>                          | The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the required contribution.  |

|   |   |
|---|---|
| <b><i>Amortization Method</i></b>                   | A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL.  |
| <b><i>Amortization Payment</i></b>                  | That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.  |
| <b><i>Amortization Period</i></b>                   | The period used in calculating the Amortization Payment.  |
| <b><i>Closed Amortization Period</i></b>            | A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.  |
| <b><i>Employer Normal Cost</i></b>                  | The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.   |
| <b><i>Equivalent Single Amortization Period</i></b> | For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.                     |
| <b><i>Experience Gain/Loss</i></b>                  | A measure of the difference between the normal cost rate from last year and the normal cost rate from this year.  |
| <b><i>Funded Ratio</i></b>                          | The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.  |
| <b><i>GASB</i></b>                                  | Governmental Accounting Standards Board.  |
| <b><i>GASB No. 67 and GASB No. 68</i></b>           | 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. |
| <b><i>Normal Cost</i></b>                           | The annual cost assigned, under the Actuarial Cost Method, to the current plan year.  |
| <b><i>Unfunded Actuarial Accrued Liability</i></b>  | The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.   |
| <b><i>Valuation Date</i></b>                        | 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 III**

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### **PENSION FUND INFORMATION**

**STATEMENT OF ASSETS AT MARKET VALUE  
AS OF SEPTEMBER 30**

|                              | 2019          | 2018          |
|------------------------------|---------------|---------------|
| Cash & Cash Equivalents      | \$ 16,235     | \$ 46,090     |
| Investments                  |               |               |
| Equity Securities            | 1,114,772     | 1,098,371     |
| Corporate Bonds              | 310,934       | 156,788       |
| Government Securities        | 216,861       | 344,379       |
| Fixed Income Mutual Funds    | <u>63,010</u> | <u>61,092</u> |
| Total Investments            | 1,705,577     | 1,660,630     |
| Other Income                 | 0             | 0             |
| Total Cash & Investments     | 1,721,812     | 1,706,720     |
| Receivables                  |               |               |
| Contributions Receivable     | 83,904        | 87,830        |
| Accrued Interest & Dividends | 2,967         | 2,574         |
| Liabilities                  | 0             | 266           |
| Total Pension Funds Assets   | 1,808,683     | 1,796,858     |

**INCOME AND DISBURSEMENTS  
FOR THE YEAR ENDED SEPTEMBER 30**

|   | 2019           | 2018           |
|---|----------------|----------------|
| A. Market Value as of Beginning of Year | \$ 1,796,858   | \$ 1,655,128   |
| B. Receipts During Period               |                |                |
| 1. Contributions                        |                |                |
| a. Employee                             | N/A            | N/A            |
| b. State                                | 83,904         | 87,830         |
| c. Total                                | <u>83,904</u>  | <u>87,830</u>  |
| 2. Investment Earnings Allocation       |                |                |
| a. Interest & Dividends                 | 51,183         | 12,569         |
| b. Realized Gain/(Loss)                 | 32,341         | 51,729         |
| c. Unrealized Gain/(Loss)               | 10,064         | 123,620        |
| d. Total                                | <u>93,588</u>  | <u>187,918</u> |
| 3. Total Receipts During Period         | 177,492        | 275,748        |
| C. Disbursements During Period          |                |                |
| 1. Benefits                             |                |                |
| a. Pension Payments                     | 93,863         | 93,863         |
| b. Share Plan Distributions             | 30,741         | 0              |
| c. Total Benefits                       | <u>124,604</u> | <u>93,863</u>  |
| 2. Administrative Expenses              | 41,063         | 40,155         |
| 3. Total Disbursements During Period    | 165,667        | 134,018        |
| D. Market Value as of End of Year       | 1,808,683      | 1,796,858      |

| <b>Actuarial Value of Assets as of September 30</b>       |             |             |
|---|-------------|-------------|
|   | <b>2019</b> | <b>2018</b> |
| A. Market Value of Assets at Beginning of Year            | \$1,796,858 | \$1,655,128 |
| B. Contributions  | 83,904      | 87,830      |
| C. 1. Benefit Payments                                    | 124,604     | 93,863      |
| 2. Administrative Expenses                                | 41,063      | 40,155      |
| 3. Total Disbursements                                    | 165,667     | 134,018     |
| D. Expected Investment Income                             | 105,359     | 97,922      |
| E. Expected Assets End of Year: A+B-C+D                   | 1,820,454   | 1,706,862   |
| F. Actual Market Value at End of Year                     | 1,808,683   | 1,796,858   |
| G. Excess/(Shortfall) of Actual over Expected Assets: F-E |             |             |
| 1. From This Year   | (11,771)    | 89,996      |
| 2. From One Year Ago                                      | 89,996      | 72,675      |
| 3. From Two Years Ago                                     | 72,675      | 15,640      |
| 4. From Three Years Ago                                   | 15,640      | (181,085)   |
| H. Decreasing Fractions of Excess/(Shortfall)             |             |             |
| 1. 80% From This Year                                     | (9,417)     | 71,997      |
| 2. 60% From One Year Ago                                  | 53,998      | 43,605      |
| 3. 40% From Two Years Ago                                 | 29,070      | 6,256       |
| 4. 20% From Three Years Ago                               | 3,128       | (36,217)    |
| 5. Total  | 76,779      | 85,641      |
| I. Preliminary Actuarial Value of Assets as of EOY: F-H5  | 1,731,904   | 1,711,217   |
| J. Market Value Corridor Adjustment                       |             |             |
| 1. 80% of Market Value                                    | 1,446,946   | 1,437,486   |
| 2. 120% of Market Value                                   | 2,170,420   | 2,156,230   |
| 3. Valuation Assets within Corridor                       | 1,731,904   | 1,711,217   |
| K. Reserves   |             |             |
| Funding Standard Account Balance                          | 508,935     | 530,659     |
| Share Plan Reserve  | 55,851      | 43,915      |
| L. Actuarial Value of Assets: I-J                         | 1,167,118   | 1,136,643   |



## RECONCILIATION OF SHARE PLAN ACCOUNT

| Reconciliation of Share Accounts<br>for the Year Ended September 30, 2019 |           |
|---|-----------|
| Beginning Balance as of October 1, 2018                                   | \$ 43,915 |
| Distributions   | (30,741)  |
| Earnings  | 725       |
| Additions as of September 30, 2019  | 41,952    |
| Ending Balance  | 55,851    |

## INVESTMENT RATE OF RETURN

The investment rate of return has been calculated on the following bases:

- Basis 1: Market Value Basis** - interest, dividends, realized gains (losses) and unrealized appreciation (depreciation), divided by the weighted average of the market value of the fund during the year. This figure is normally called the Total Rate of Return.
- Basis 2: Valuation Asset Basis** - investment earnings recognized in the Actuarial Value of Assets divided by the weighted average of the Actuarial Value of Assets during the year.

| Year Ended                             | Investment Rate of Return |         |
|--|---------------------------|---------|
|  | Basis 1                   | Basis 2 |
| 9/30/2019                              | 5.5 %                     | 6.1 %   |
| 9/30/2018                              | 11.8                      | 6.7     |
| 9/30/2017                              | 11.2                      | 5.7     |
| 9/30/2016                              | 8.4                       | 7.0     |
| 9/30/2015                              | (5.6)                     | 6.6     |
| 9/30/2014                              | 12.7                      | 10.6    |
| 9/30/2013                              | 11.4                      | 8.7     |
| 9/30/2012                              | 20.5                      | 3.7     |
| 9/30/2011                              | (0.4)                     | 1.9     |
| 9/30/2010                              | 9.1                       | 2.6     |
| Average Compounded Rate of Return for: |                           |         |
| Last 3 Years                           | 9.5 %                     | 6.2 %   |
| Last 5 Years                           | 6.1 %                     | 6.4 %   |
| Last 10 Years                          | 8.2 %                     | 5.9 %   |

## **SECTION IV**

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### **MEMBER STATISTICS**

| <b>STATISTICAL DATA</b>                        |                |                |                |
|--|----------------|----------------|----------------|
|  | <b>10/1/19</b> | <b>10/1/18</b> | <b>10/1/17</b> |
| <b>Active Participants</b>                     |                |                |                |
| Number   | 1              | 1              | 1              |
| Averages                                       |                |                |                |
| Current Age                                    | 55.0           | 54.0           | 53.0           |
| Age at Employment                              | 26.2           | 26.2           | 26.2           |
| Past Service                                   | 28.8           | 27.8           | 26.8           |
| Service at Age 50                              | 23.8           | 23.8           | 23.8           |
| <b>Members Receiving Benefits</b>              |                |                |                |
| Number   | 7              | 7              | 7              |
| Total Annual Pensions                          | \$ 93,863      | \$ 93,863      | \$ 93,863      |
| Average Monthly Benefit                        | 1,117          | 1,117          | 1,117          |
| Average Current Age                            | 61.1           | 60.1           | 59.1           |
| <b>Terminated Members with Vested Benefits</b> |                |                |                |
| Number   | 2              | 2              | 2              |
| Total Annual Pensions                          | \$ 14,784      | \$ 14,784      | \$ 14,784      |
| Average Monthly Benefit                        | 616            | 616            | 616            |
| Average Current Age                            | 50.7           | 49.7           | 48.7           |

| <b>RECONCILIATION OF MEMBERSHIP DATA</b>                          |          |
|---|----------|
| Year Ended  | 9/30/19  |
| <b>A. Active Members</b>  |          |
| 1 Number Included in Last Valuation                               | 1        |
| 2 Additions from Vested Terminated Members                        | 0        |
| 3 Non-Vested Employment Terminations                              | 0        |
| 4 Vested Employment Terminations                                  | 0        |
| 5 Service Retirements   | 0        |
| 6 Disability Retirements  | 0        |
| 7 Deaths  | <u>0</u> |
| 8 Number Included in This Valuation                               | 1        |
| <b>B. Terminated Vested Members</b>                               |          |
| 1 Number Included in Last Valuation                               | 2        |
| 2 Payments Commenced  | 0        |
| 3 Deaths  | <u>0</u> |
| 4 Number Included in This Valuation                               | 2        |
| <b>C. Service Retirees, Disability Retirees and Beneficiaries</b> |          |
| 1 Number Included in Last Valuation                               | 7        |
| 2 Additions from Active Members                                   | 0        |
| 3 Additions from Terminated Vested Members                        | 0        |
| 4 Deaths Resulting in No Further Payments                         | 0        |
| 5 End of Certain Period - No Further Payments                     | <u>0</u> |
| 6 Number Included in This Valuation                               | 7        |

## **SECTION V**

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### **SUMMARY OF RETIREMENT PLAN PROVISIONS**

## **WILTON MANORS FIREFIGHTERS RETIREMENT SYSTEM SUMMARY OF RETIREMENT PLAN PROVISIONS**

A. Effective Date:

April 9, 1996.

B. Eligibility Requirements:

All active members of the Wilton Manors Volunteer Fire Department shall become participants on date of membership.

C. Credited Service:

Service in completed calendar months from date first served as an active member to the earlier of the participant's termination of service or actual retirement date.

D. Pensionable Compensation:

None. The plan benefits are not compensation related.

E. Normal Retirement:

Eligibility:

Earlier of (i) or (ii), where:

(i) is attainment of age 55, and

(ii) is attainment of age 50 and completion of 20 years of creditable service.

Monthly Benefit:

\$56 multiplied by years of creditable service.

F. Deferred Retirement:

Eligibility

Retirement after normal retirement date and approval by the Board.

Monthly Benefit:

The benefit is calculated in the same manner as normal retirement except it is based on years of creditable service at deferred retirement date.

G. Service-Connected Disability Benefit:



Eligibility: Unable to perform regular and continuous duties as a volunteer firefighter as a result of a service-connected injury, disease, or disability.

Benefit: Benefit in an amount equal to the normal retirement benefit which would have been paid at the participant's normal retirement date. The benefit is payable monthly for life, with 120 payments guaranteed (payable for life only as of the last valuation).

H. Pre-Retirement Death Benefit:

Eligibility: Death while an active volunteer firefighter.

Benefit: The participant's beneficiary shall be entitled to receive the participant's normal retirement benefit as if the member had retired on the date of death.

I. Vested Benefit Upon Termination:

Eligibility: At least 10 years of creditable service at date of termination. However, upon reaching normal retirement age, a participant will be 100% vested, regardless of service.

Benefit: The monthly benefit payable at normal retirement date equal to the benefit accrued to the date of termination.

J. Employee Contributions:

None.

K. Normal Form of Retirement Income:

The normal form of payment shall be a 10 year certain and life annuity. Optional forms are available.

L. Share Plan

When the Retirement System is at least 100% funded on a market value basis, 50% of the next year's premium tax revenue will be allocated to the Share Plan. When the System becomes 110% funded on the same market value basis, 100% of the next year's premium tax revenue will be allocated to the Share Plan.