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June 10, 2022

Mr. David Williams
Boynton Beach Municipal Firefighters' Pension Trust Fund
Precision Pension Administration
2100 North Florida Mango Road
West Palm Beach, Florida 33409

Re: City of Boynton Beach Municipal Firefighters' Pension Trust Fund – Actuarial Impact Statement

Dear Dave:

As requested, we have prepared the enclosed Actuarial Impact Statement showing the impact of the proposed Ordinance which would amend the Plan provisions of the City of Boynton Beach Municipal Firefighter's Pension Trust Fund (Plan). The results are based on census and asset data as of October 1, 2021.

Please refer to the enclosed exhibits for details. The following is a brief description of the Plan changes included in the proposed Ordinance.

- Current Plan Provisions and Assumptions – Same plan provisions and actuarial assumptions as described in the October 1, 2021 Actuarial Valuation Report. Each retiree, beneficiary and disability retiree who retires or enters the DROP on or after December 1, 2006 receives a 2.0% increase in benefits on October 1st of each year beginning five years after retirement. Members participating in the DROP do not contribute to the Plan and must terminate service after the earlier of five years of participation in the DROP or 30 years of total employment. A Consolidated Deferred Retirement Option Plan is applicable for members hired on or after January 1, 2020 in which members' DROP accounts are credited at the same rate earned by the Plan, but no less than 0% and no more than 8%.

- Plan Changes – The proposed ordinance would amend the Plan as follows:

  - 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 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 proposed Ordinance would also make a clarifying change to match existing practice associated with benefit calculations under the Plan: Upon exercising the right to participate in the DROP, an employee’s creditable service, accrued benefits and compensation calculation shall be frozen and shall utilize the average of the three highest of the ten years immediately preceding participation in the DROP as the compensation basis. In our opinion, this change would will have no actuarial impact on the cost of the Plan, as it trues up the Plan language with actual current practice.

After discussion with the Pension Board chairman, we are assuming that the proposed change to delay the first COLA increase until the October 1st following separation from employment (for DROP participants who elect to extend their DROP participation period longer than five years) will result in an average delay of 6 years from the date of retirement/DROP entry to the date of the first COLA increase for all current DROP participants and all active members. This is a change from the current assumed delay of five years. This assumption should be monitored and compared against emerging experience, but is believed to be somewhat conservative, as several members have expressed an interest in participating in the DROP for the new maximum DROP participation period of 8 years.

Summary of Findings

As a result of the proposed Plan changes and the associated assumption change that the average delay from the date of retirement/DROP entry until the date of the first COLA increase will be 6 years instead of five years:

- The total actuarially determined employer contribution (ADEC) for the fiscal year ending September 30, 2023 decreases by $124,832, from $6,772,144 to $6,647,312 (or by 1.04% of covered payroll, from 56.42% to 55.38%). Since the Plan/assumption 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, this 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 net required City contribution remains unchanged (at $5,703,846).

- The funded ratio (actuarial value of assets divided by actuarial accrued liability) increases by 0.5%, from 74.4% to 74.9%. The amount of the unfunded actuarial accrued liability decreases by $1,137,446.

Other Cost Considerations

The proposed Ordinance extends the DROP maximum period from the earlier of 5 years of participation or 30 years of total employment to the earlier of 8 years of participation or 33 years of total employment. To the extent that members utilize the longer DROP participation period and remain in the DROP longer than 5 years, it is likely to reduce the need to hire new Firefighters as soon. This could cause a smaller proportion of the overall population of actively employed Firefighters (which includes DROP participants) to be earning benefit accruals. This may lead to lower normal costs (the cost of benefits being earned each year) in the future (and consequently lower future City contributions) than they otherwise would have been if the maximum DROP participation period remained at 5 years. The future savings depend on how many Firefighters elect to extend their DROP participation periods beyond 5 years and for how long. A full analysis of this potential future impact would require projections to be run incorporating assumptions as to how many Firefighters choose to participate in the DROP for 6, 7 or 8 years and was outside of the scope of this assignment.

Risks Associated with 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 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 either assumed or forecasted returns;
2. 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;

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 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 amounts may be considered as a minimum contribution that complies with the pension Board's funding policy and the State statutes. 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.

Risk Assessment

Risk assessment was outside the scope of this report. Risk 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. We are prepared to perform such assessment to aid in the decision making process.

Disclosures and Qualifications

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

The purpose of this report is to describe the financial effect of the changes summarized above. This report should not be relied on for any purpose other than the purpose described above. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The results in this report are based on census and asset data as of October 1, 2021, as provided by the Plan Administrator for the October 1, 2021 Actuarial Valuation concerning Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We reviewed this information 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. Please refer to the Actuarial Valuation Report dated April 22, 2022 for all actuarial assumptions, methods and disclosures.

The calculations are based upon assumptions regarding future events, which may or may not materialize. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, or that conditions have changed since the calculations were made, you should contact the author of the report prior to relying on information in the report.

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, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Peter N. Strong and Jeffrey Amrose 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.

We welcome your questions and comments.

Sincerely yours,

GABRIEL, ROEDER, SMITH & COMPANY

Pete Strong

Peter N. Strong, FSA, MAAA
Senior Consultant & Actuary

Jeff Amrose

Jeffrey Amrose, MAAA
Senior Consultant & Actuary

Enclosures

CITY OF BOYNTON BEACH
MUNICIPAL FIREFIGHTERS' PENSION TRUST FUND

Actuarial Impact Statement – June 10, 2022

Description of Amendments

The proposed ordinance would amend the Plan as follows:

- 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 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 proposed Ordinance would also make a clarifying change to match existing practice associated with benefit calculations under the Plan: Upon exercising the right to participate in the DROP, an employee's creditable service, accrued benefits and compensation calculation shall be frozen and shall utilize the average of the three highest of the ten years immediately preceding participation in the DROP as the compensation basis. In our opinion, this change would will have no actuarial impact on the cost of the Plan, as it trues up the Plan language with actual current practice.

Funding Implications of Amendment

An actuarial cost estimate is attached.

Certification of Administrator

I believe the amendment to be in compliance with Part VII, Chapter 112, Florida Statutes and Section 14, Article X of the Constitution of the State of Florida.

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For the Board of Trustees
as Plan Administrator

SUPPLEMENTAL ACTUARIAL VALUATION REPORT

Plan

City of Boynton Beach Municipal Firefighters' Pension Trust Fund

Valuation Date

October 1, 2021

Date of Report

June 10, 2022

Report Requested by

Board of Trustees

Prepared by

Peter N. Strong

Group Valued

All active and inactive Firefighters

Changes in Plan Provisions

<u>Current Provisions (Before Proposed Changes)</u>

- Members participating in the DROP do not contribute to the Plan and must terminate service after the earlier of 5 years of participation in the DROP or 30 years of employment.
- Each retiree, beneficiary and disability retiree who retires or enters the DROP on or after December 1, 2006 receives a 2.0% (cost of living) increase in benefits on October 1st of each year beginning 5 years after retirement.
- A Consolidated Deferred Retirement Option Plan is applicable for members hired on or after January 1, 2020. Account balances for members in the Consolidated DROP are credited at the same rate earned by the Plan, but no less than 0% and no more than 8%.

<u>Revised Provisions (After Proposed Changes)</u>

- 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 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 proposed Ordinance would also make a clarifying change to match existing practice associated with benefit calculations under the Plan: Upon exercising the right to participate in the DROP, an employee's creditable service, accrued benefits and compensation calculation shall be frozen and shall utilize the average of the three highest of the ten years immediately preceding participation in the DROP as the compensation basis. In our opinion, this change would will have no actuarial impact on the cost of the Plan, as it trues up the Plan language with actual current practice.

Changes in Actuarial Assumptions and Methods

It has been assumed that the proposed change to delay the first COLA increase until the October 1st following separation from employment (for DROP participants who elect to extend their DROP participation period longer than five years) will result in an average delay of 6 years from the date of retirement/DROP entry to the date of the first COLA increase for all current DROP participants and all active members. This is a change from the current assumed delay of five years.

All other actuarial assumptions and methods are the same as those used in the October 1, 2021 Actuarial Valuation Report.

Some of the key assumptions/methods are:
Investment Return – 7.15%
Salary Increase – 3.25% to 15.0% per year depending on service
Cost Method – Entry Age Normal

Amortization Period for Any Change in Actuarial Accrued Liability

25 years

Summary of Data Used in Report

See attached page

Actuarial Impact of Proposal(s)

See attached page(s)

PARTICIPANT DATA		
	October 1, 2021 *Valuation*	October 1, 2021 *Proposed Ordinance*
ACTIVE MEMBERS		
Number	111	111
Covered Annual Payroll	$ 11,710,333	$ 11,710,333
Average Annual Payroll	$ 105,498	$ 105,498
Average Age	38.9	38.9
Average Past Service	11.2	11.2
Average Age at Hire	27.7	27.7
RETIREES, BENEFICIARIES & DROP		
Number	129	129
Annual Benefits	$ 8,080,500	$ 8,080,500
Average Annual Benefit	$ 62,640	$ 62,640
Average Age	62.5	62.5
DISABILITY RETIREES		
Number	4	4
Annual Benefits	$ 193,448	$ 193,448
Average Annual Benefit	$ 48,362	$ 48,362
Average Age	49.3	49.3
TERMINATED VESTED MEMBERS		
Number	2	2
Annual Benefits	$ 77,127	$ 77,127
Average Annual Benefit	$ 38,564	$ 38,564
Average Age	41.6	41.6

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)			
A. Valuation Date	October 1, 2021 *Valuation*	October 1, 2021 *Proposed Ordinance*	*Change*
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2023	9/30/2023	
C. Assumed Date of Employer Contrib.	10/1/2021	10/1/2021	
D. Annual Payment to Amortize Unfunded Actuarial Liability	$ 3,686,801	$ 3,613,145	$ (73,656)
E. Employer Normal Cost	2,920,288	2,871,697	(48,591)
F. ADEC if Paid on the Valuation Date: D+E	6,607,089	6,484,842	(122,247)
G. ADEC Adjusted for Frequency of Payments	6,607,089	6,484,842	(122,247)
H. ADEC as % of Covered Payroll	56.42 %	55.38 %	(1.04) %
I. Covered Payroll per Valuation	11,710,333	11,710,333	0
J. Assumed Rate of Increase in Covered Payroll to Contribution Year	2.50 %	2.50 %	0.00 %
K. Covered Payroll for Contribution Year	12,003,091	12,003,091	0
L. ADEC for Contribution Year: H x K	6,772,144	6,647,312	(124,832)
M. Estimate of State Revenue Allocated in Contribution Year (including amounts from the Accumulated Excess Reserve)	1,068,298	943,466	(124,832)
N. Actuarially Determined Employer Contribution (ADEC) in Contribution Year	5,703,846	5,703,846	0
O. ADEC as % of Covered Payroll in Contribution Year: N ÷ K	47.52 %	47.52 %	0 %
P. Estimated Amount of Accumulated Excess Premium Tax Revenue to offset ADEC (If Actual State Revenue = $995,143)	73,155	-	(73,155)

ACTUARIAL VALUE OF BENEFITS AND ASSETS			
A. Valuation Date	October 1, 2021 *Valuation*	October 1, 2021 *Proposed Ordinance*	*Change*
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	$ 83,032,516	$ 81,899,532	$ (1,132,984)
b. Vesting Benefits	3,748,287	3,748,287	-
c. Disability Benefits	2,075,764	2,075,764	-
d. Preretirement Death Benefits	670,667	670,667	-
e. Return of Member Contributions	195,851	195,851	-
f. Total	89,723,085	88,590,101	(1,132,984)
2. Inactive Members			
a. Service Retirees & Beneficiaries	104,348,122	103,983,261	(364,861)
b. Disability Retirees	2,968,202	2,968,202	-
c. Terminated Vested Members	830,675	830,675	-
d. Total	108,146,999	107,782,138	(364,861)
3. Total for All Members	197,870,084	196,372,239	(1,497,845)
C. Actuarial Accrued (Past Service) Liability per GASB No. 25	166,996,539	165,859,093	(1,137,446)
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	N/A	N/A	N/A
E. Plan Assets			
1. Market Value	140,845,497	140,845,497	0
2. Actuarial Value	124,219,104	124,219,104	0
F. Unfunded Actuarial Accrued Liability: C - E2	42,777,435	41,639,989	(1,137,446)
G. Actuarial Present Value of Projected Covered Payroll	92,064,552	92,064,552	0
H. Actuarial Present Value of Projected Member Contributions	11,047,747	11,047,747	0
I. Funded Ratio: E2/C	74.4%	74.9%	0.5%

ENTRY AGE NORMAL METHOD
CALCULATION OF EMPLOYER NORMAL COST

A. Valuation Date	October 1, 2021 *Valuation*	October 1, 2021 *Proposed Ordinance*	*Change*
B. Normal Cost for			
1. Service Retirement Benefits	$ 3,572,328	$ 3,523,737	$ (48,591)
2. Vesting Benefits	262,005	262,005	-
3. Disability Benefits	187,350	187,350	-
4. Preretirement Death Benefits	40,806	40,806	-
5. Return of Member Contributions	55,343	55,343	-
6. Total for Future Benefits	4,117,832	4,069,241	(48,591)
7. Assumed Amount for Administrative Expenses	207,696	207,696	-
8. Total Normal Cost	4,325,528	4,276,937	(48,591)
As % of Covered Payroll	36.94 %	36.52 %	(0.42) %
C. Expected Member Contribution	1,405,240	1,405,240	-
As % of Covered Payroll	12.00 %	12.00 %	0.00 %
D. Net Employer Normal Cost: B8-C	2,920,288	2,871,697	(48,591)
As % of Covered Payroll	24.94 %	24.52 %	(0.42) %