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February 5, 2020

City of Richmond Heights Policemen's
and Firemen's Retirement Fund
1330 S. Big Bend Boulevard
Richmond Heights, MO 63117

Attention: Retirement Board and Mayor

Re: City of Richmond Heights Policemen's and Firemen's Retirement Fund

Dear Retirement Board and Mayor:

Enclosed are supplemental actuarial valuations to measure the financial effect of proposed changes for the City of Richmond Heights Policemen's and Firemen's Retirement Fund.

If you have any questions or comments, please contact us.

Sincerely,

Brad Lee Armstrong, ASA, EA, FCA, MAAA

BLA:bd
Enclosure

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

City of Richmond Heights
Policemen's and Firemen's Retirement Fund
Supplemental Actuarial Valuation
as of July 1, 2019

Requested By: Retirement Board and Mayor
Communicated to GRS by Sara J. Fox, Finance Director

Date: February 5, 2020

Submitted By: Brad Lee Armstrong, ASA, EA, FCA, MAAA and Derek A. Henning, ASA, MAAA
Gabriel, Roeder, Smith & Company

This report contains the results of supplemental actuarial valuations for the City of Richmond Heights Policemen's and Firemen's Retirement Fund to measure the financial effect of allowing active employees to retire at 25 years of service with 70% of their three-year average salary and to calculate the funded status of the Fund if the Pension's property tax rate were reduced by 5% and 15%. Brad Lee Armstrong and Derek A. Henning are independent of the plan sponsor, are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The date of this valuation was July 1, 2019. Supplemental valuations do not predict the result of future actuarial valuations. (Future activities can affect future valuation results in an unpredictable manner.) Rather, supplemental valuations give an indication of the probable effect of **only the benefit or funding changes** on future valuations without comment on the complete end result of the future valuations.

The valuation was based on actuarial data submitted for the July 1, 2019 annual actuarial valuation and actuarial methods as of July 1, 2019. Unless otherwise noted, valuation assumptions are based on the July 1, 2019 valuation. In particular:

- The assumed rate of interest of 6.00%.
- The assumed rate of wage inflation was 2.50%.
- The valuation method was the entry age actuarial cost method.
- Expected annual tax revenue of $991,515.

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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; 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.

This report should not be relied on for any purpose other than the purpose described above. This report is intended for use by the City and may be provided to parties other than the Board only in its entirety and only with permission of the City. GRS is not responsible for unauthorized use of this report.

A brief summary of the member data provided by the City, as of July 1, 2019, used in this valuation is presented below:

		Averages		
Status	Count	Age	Service	Annual Pay/ Monthly Benefit
Active	61	43.2	12.8	$73,941
Retirees	28	69.5	28.4	4,566
Disabled	7	61.6	18.8	4,475
Beneficiaries	6	73.9	N/A	1,731
Terminated Vested	0	N/A	N/A	N/A

Proposed Funding Policy

When the now obsolete GASB 25 statement was in effect, it dictated the amortization of the unfunded liability or prepaid asset to be amortized over a period of no more than 30 years when calculating the annual required contribution (ARC). Since GASB no longer stipulates a required contribution and the fund does not currently have a written funding policy, the actuarial determined contribution (ADC) calculated in our valuation report (issued on January 21, 2020) is equal to the normal cost contribution with no offsetting credit attributable to the Fund's overfunded status. The ADC calculated in this report differs in that it amortizes the overfunded amount over an open 30-year period. We believe this better illustrates the impact of the proposals.

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Proposal 1 – Normal Retirement Eligibility Change

Present Provisions

Normal Retirement Benefit

Eligibility:	(1)	Attained age 60, or
	(2)	30 years of service.
Form:		Life annuity, payable monthly for single participants and 25% Joint and Survivor for married participants.
Amount:	(1)	70% of Retirement Base Pay, but reduced proportionately if less than 30 years of service.
	(2)	Plus a refund of employee contributions, without interest, with the initial monthly payment only.

Proposed Provisions

Normal Retirement Benefit

Eligibility:	(1)	Attained age 60, or
	(2)	**25 years of service.**
Form:		Life annuity, payable monthly for single participants and 25% Joint and Survivor for married participants, but reduced proportionately if less than 30 years of service.
Amount:	(1)	70% of Retirement Base Pay.
	(2)	Plus a refund of employee contributions, without interest, with the initial monthly payment only.

Actuarial Statement

	Present	Proposed	Impact
(1) Total Actuarial Accrued Liability	$ 47,762,588	$ 52,260,365	$ 4,497,777
(2) Actuarial Value of Assets (smoothed market value)	57,875,685	57,875,685	0
(3) Unfunded Actuarial Accrued Liability (UAAL): (2)-(1)	(10,113,097)	(5,615,320)	4,497,777
(4) 30-year open level percent-of-payroll amortization factor	18.6757	18.6757	
(5) UAAL Amortization Payment (Credit): (3)/(4)	(541,510)	(300,674)	240,836
(6) City Normal Cost	1,126,456	1,442,114	315,658
(7) Annual Required Contribution (ARC): (5)+(6)	**$ 584,946**	**$ 1,141,440**	**$ 556,494**
(8) Expected Tax Revenue	**$ 991,515**	**$ 991,515**	
(9) Funded Ratio	121.2%	110.7%	(10.4)%

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Proposal 2 – Funding Source Reductions

The Board has requested a supplemental valuation be prepared calculating the funded status of the Fund if the Pension's property tax rate were reduced by 5% and 15%. Changes to the funding method of the Fund would not directly immediately impact the funded status of the plan.

Currently, the Expected Tax Revenue exceeds the Annual Required Contributions and acts as a **Provision against Adverse Deviation**. Adverse Deviation is any experience (mortality, rate of investment return, withdrawals, et cetera) that deviates from the actuarial assumptions and has a negative financial impact on the Fund.

Below is a simple illustration of Adverse Deviation by way of performing the July 1, 2019 valuation assuming a 5.00% rate of investment return:

Actuarial Statement and Illustration

Rate of Return	6.00%	5.00%	Impact
(1) Total Actuarial Accrued Liability	$ 47,762,588	$ 54,385,826	$ 6,623,238
(2) Actuarial Value of Assets (smoothed market value)	57,875,685	57,875,685	$ 0
(3) Unfunded Actuarial Accrued Liability (UAAL): (2)-(1)	(10,113,097)	(3,489,859)	$ 6,623,238
(4) 30-year open level percent-of-payroll amortization factor	18.6757	21.0973	
(5) UAAL Amortization Payment (Credit): (3)/(4)	(541,510)	(165,417)	$ 376,093
(6) City Normal Cost	1,126,456	1,476,381	$ 349,925
(7) Annual Required Contribution (ARC): (5)+(6)	**$ 584,946**	**$ 1,310,964**	**$ 726,018**
(8) Expected Tax Revenue	**$ 991,515**	**$ 991,515**	
(9) Provision against Adverse Deviation: (8)-(7)	**$ 406,569**		
(10) Provision against Adverse Deviation Assuming 95% of Expected Tax Revenue: 95%*(8)-(7)	**$ 356,993**		
(11) Provision against Adverse Deviation Assuming 85% of Expected Tax Revenue: 85%*(8)-(7)	**$ 257,842**		

If investment experience returns 5.00%, the Annual Required Contribution will trend upwards of $1,000,000. Reducing the Expected Tax Revenue would diminish the mitigating effects that a higher contribution rate has on Adverse Deviation (experience losses) and the UAAL Amortization Credit is less sustainable as the Provision against Adverse Deviation is reduced.

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Comments

Comment 1 — Decreasing the Normal Retirement Eligibility condition will create new staffing decisions for management and will increase the number of retirees over time since career positions will be vacated more frequently.

Comment 2 — Under Proposal 1, it was assumed Termination Benefits would commence at the earlier of age 60 or the date the participant would have accrued 25 years of service. Similarly, it was assumed that Termination Benefits, Duty Disability Retirement Benefits, and Non-Duty Disability Retirement Benefits would be reduced proportionately for service less than 25 years.

Comment 3 — Under Proposal 1, rates of retirement used are as follows:

Present
A rate of 75% upon reaching 30 years of service or age 60 with 15 years of service; rates of 10% per year for each year after 30 years to age 61; a rate of 25% at age 62 (40% with 30 years of service), 10% at age 63, 15% at age 64 (20% with 30 years of service), and a rate of 100% for age 65 and over.

Proposed
A rate of 75% upon reaching 25 years of service or age 60 with 15 years of service; rates of 10% per year for each year after 25 years to age 61; a rate of 25% at age 62 (40% with 25 years of service), 10% at age 63, 15% at age 64 (20% with 25 years of service), and a rate of 100% for age 65 and over.

Comment 4 — If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision.

Comment 5 — If some combination of Proposal 1 and Proposal 2 is considered, we encourage all stakeholders to consider the public policy issues it could create prior to reaching a final decision to make changes. However, no statement in this report is intended to be interpreted as a recommendation in favor of the changes, or in opposition to them.

Comment 6 — This report is intended to describe the financial effect of the changes to the Retirement Fund. Except as otherwise noted, potential effects on other benefit plans were not considered.

Comment 7 — The reader of this report should keep in mind that actuarial calculations are mathematical estimates based on current data and assumptions about future events (which may or may not materialize). Please note that actuarial calculations can and do vary from one valuation year to the next, sometimes significantly if the group valued is small. As a result, the cost impact of a benefit change may fluctuate over time, as the demographics of the group changes.