

August 26, 2016

Ms. Dee Ann Irby
Treasurer/Comptroller
City of Grosse Pointe Woods
20025 Mack Plaza Drive
Grosse Pointe Woods, MI 48236

Dear Ms. Irby:

This report contains the results of an actuarial valuation of the liabilities associated with retiree health benefits provided by the City of Grosse Pointe Woods Retiree Health Plan, together with computed contributions to systematically finance these benefits.

The date of the valuation was June 30, 2016.

The purpose of the actuarial valuation is to:

- Compute the liabilities associated with post- employment health benefits likely to be paid on behalf of current retired, inactive vested and active employees, and
- Compute a pre-funding contribution rate to finance post-employment health benefits as they accrue.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. Data concerning active members, retirees and beneficiaries was provided by the City. This data has been reviewed for reasonableness, but no attempt has been made to audit such information. This valuation has been prepared under the supervision of a Member of the American Academy of Actuaries qualified to render the actuarial opinions contained herein.

Respectfully submitted,



Denise M. Jones
Senior Consultant



Sandra W. Rodwan
Member, American Academy of Actuaries

***City of Grosse Pointe Woods
Retiree Health Plan***

Actuarial Valuation as of June 30, 2016

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Section One:

Valuation Summary



Purpose of Valuation

The purpose of the annual actuarial valuation of the City of Grosse Pointe Woods Retiree Health Plan as of June 30, 2016 is to:

- ❖ Compute the liabilities associated with post-employment health benefits likely to be paid on behalf of current retired, inactive vested and active participants,
- ❖ Compute a pre-funding contribution rate to finance the benefits as they accrue.

Assumptions Used in the Valuation

The liabilities and pre-funding contribution rate are very sensitive to the long-term assumptions used in making the valuation. The assumptions used in making this valuation, summarized in Section Four, are only one reasonable set out of a large number of possibilities. To the extent that actual experience differs from the long-term assumptions, the liabilities and contribution rates will be greater or less than those indicated in this report. The assumptions having the greatest impact are the rate of medical care inflation and the investment return rate. We have assumed an 8.5% annual increase for medical care inflation in the first year, decreasing in increments of 0.5% over the next 8 years to the ultimate 4.5% assumption. The assumed investment return rate was 3.50%. Please refer to Comments 2 and 3 on page 4. Liabilities and computed contributions can change significantly in future years depending upon the actual and assumed rates of medical care inflation, investment return, benefit provisions and demographics of the participant group.

Actuarial Accrued Liabilities

Accrued liabilities of the post-employment health benefits as of June 30, 2016, were computed to be \$26,055,741 for General members. Of this amount, \$10,935,277 was attributable to current active employees, \$14,097,488 was attributable to current retirees and \$1,022,976 for vested deferred members. Accrued liabilities were computed to be \$27,790,329 for Public Safety members. Of this amount, \$9,147,184 was attributable to current active employees and \$18,643,145 to current retirees.

Funding Value of Assets

As of June 30, 2016 \$50,000 was reported for this actuarial valuation.

Computed Annual Required Contribution Rate

The total employer contribution rate computed to pre-fund the benefits of active employee was computed to be \$1,654,467 for General members and \$1,575,916 for Public Safety. There are two components of this rate, the normal cost and an amortization payment for unfunded actuarial accrued liability. The normal cost contribution rate was computed to be \$756,406 for General members and \$618,012 for Public Safety. The amortization payment was computed to be \$898,061 for General members and \$957,904 for Public Safety. The amortization period used was 30 years. The 30 year period is the maximum permitted for reporting purposes under Statements 43 and 45 of the Governmental Accounting Standards Board.

Participants

	General	Public Safety
Active Employees	41	25
Retirees	50	47
Inactive Vested Participants	10	--

Post-Retirement Health Care Rates

The City submitted data concerning the illustrative premium rates and claims costs for active and retired participants. For purposes of the valuation, the premiums were adjusted to reflect the older age characteristics of the retiree group.



Section Two:

***Actuarial Calculations –
Funding***



Actuarial Accrued Liabilities

The actuarial accrued liabilities as of June 30, 2016 were computed to be the following:

	<u>General</u>	<u>Public Safety</u>	<u>Total</u>
Active participants	\$10,935,277	\$9,147,184	\$20,082,461
Vested inactive participants	1,022,976	0	1,022,976
Retirees and beneficiaries	<u>14,097,488</u>	<u>18,643,145</u>	<u>32,740,632</u>
Total	26,055,741	27,790,329	53,846,070
Less: Valuation Assets	<u>25,000</u>	<u>25,000</u>	<u>50,000</u>
Unfunded Actuarial Accrued Liabilities	\$26,030,714	\$27,765,329	\$53,796,070
Funded Ratio			00.1%

Computed Annual Required Contribution (ARC) – Fiscal Year Beginning July 1, 2016

The computed contribution rate consists of two components: normal cost and amortization of unfunded actuarial accrued liability. Normal cost was computed to be a level percent of payroll from date of hire to date of termination. The normal cost can be considered to be the ongoing cost of the Plan.

The portion of the total present value of future benefits allocated to service already rendered is the actuarial accrued liability. Deducting the valuation assets produces the unfunded actuarial accrued liability. We have amortized the unfunded actuarial accrued liability (UAAL) over 30 years, the maximum period for reporting purposes pursuant to GASB Statements 43 and 45. The amortization payments were computed to remain level as percents of payroll.

The annual dollar amounts of contributions are assumed to increase at the same rate as the assumed increase in active member payroll, 3.5% per year. Actual benefits paid on behalf of retirees may be treated as employer contributions for purposes of the Annual Required Contribution.

	Annual Required Contribution		
	General	Public Safety	Total
Normal Cost – Total	\$756,406	\$618,012	\$1,374,418
Unfunded Actuarial Accrued Liability	<u>898,061</u>	<u>957,904</u>	<u>1,855,964</u>
Annual Required Contribution	\$1,654,467	\$1,575,916	\$3,230,383

Comments

Comment 1: Governmental Accounting Standards Board (GASB) Statements 43 and 45 concern financial reporting for “other post employment benefits” (OPEB), which are non-pension benefits including retiree health benefits. The standards apply to the plan (Statement 43) and the plan sponsor (Statement 45). Among the required disclosures are the annual OPEB expense, liabilities, funded status and funding progress. Actuarial valuations to determine these disclosures are required at least every 3 years for plans with fewer than 200 participants and at least every 2 years for Plans with 200 participants or more.

Comment 2: The GASB statements do not mandate that the plan sponsor pre-fund OPEB liabilities. However, if the plan sponsor’s funding policy is to contribute less than the Annual Required Contribution (ARC), the GASB standards require that an assumed rate of investment return, reflecting the rate of return on the City’s General Fund, be used to compute the liabilities and Annual Required Contribution. The OPEB obligation represents the cumulative difference between the annual OPEB cost and the employer’s actual contribution.

For purposes of this valuation we have assumed a rate of investment return (3.50%) based upon the assumption that the employer will not contribute the actuarially determined annual required contribution. If a higher rate of investment return is assumed, the liabilities and ARC would be less. If a lower rate of investment return is assumed the liabilities and ARC would be higher.

Comment 3: Liabilities for health benefits are highly dependent upon the underlying assumptions concerning medical care inflation and the investment return rate. For the purposes of this valuation, we assumed a 3.50% investment return rate and an 8.5% annual medical care inflation rate in the first year, decreasing in 0.5% increments over the following 8 years to the ultimate assumed rate of 4.5%. Liabilities and computed contributions would be greater if a higher medical care inflation rate is assumed or a lower investment return rate. Liabilities and computed contributions would be less if a lower medical care inflation rate is assumed or a higher investment return rate.

Section Three:
Benefit Provisions



Benefit Provision Summary

Eligibility

Retirees are eligible upon retirement.

Spouses of retirees are eligible.

Surviving spouses of deceased retirees are eligible.

Surviving spouses of deceased active Retirement System members who qualify for a survivor benefit from the Retirement System are eligible.

Vested employees who terminate with 10 or more years of service with the City are eligible upon commencement of deferred retirement benefits.

Employees hired after 2011 are not eligible.

Benefits

Medical, prescription drug, dental and vision benefits are payable for life to eligible participants subject to plan documents and collective bargaining agreements.

The portion of the benefits payable by the City depends upon the retiree’s service credit. The following table is a brief summary for Normal Retirement and Non-Duty Death:

Actual Service Credit (Yrs.)	City Contribution	
	Retiree	Spouse
10	25%	0%
15	50	0*
20	100	75
25	100	100

*25% for Public Safety and Fire Specialists.

For Duty Disability and Duty Death, the city contribution is 100%.

Note: This summary of eligibility conditions and benefits is a brief outline. In case of any differences between this summary and actual eligibility conditions and benefits, the applicable contract or legal document would take precedence.



Section Four:

***Actuarial Assumptions
And Methods***



Actuarial Assumptions

Economic Assumptions

- (i) Interest Rate 3.5% (net of expenses)
- (ii) Medical Inflation Rate 8.5%, graded down to 4.5% in 0.5% increments over 8 years
- (iii) Salary Increases
 - Wage Inflation 3.5%
 - Merit and Longevity Age related rates

Sample Annual Rates of Salary Increase

Sample Ages	Inflation	Merit and Longevity	
		General	Public Safety
20	3.5%	3.8%	3.0%
25	3.5	3.1	3.0
30	3.5	2.7	2.6
35	3.5	2.4	1.1
40	3.5	2.1	0.2
45	3.5	1.7	0.2
50	3.5	1.1	0.2
55	3.5	0.7	0.1
60	3.5	0.2	0.0

Demographic Assumptions

(i) Mortality

RP 2014 Mortality Table

Sample Ages	Future Life Expectancy (Years)	
	Men	Women
55	28.2	30.7
60	24.1	26.3
65	20.1	22.0
70	16.2	18.0
75	12.7	14.3
80	9.5	10.9

(ii) Disability

Sample Ages	Percent Becoming Disabled Within Next Year	
	General	Public Safety
20	0.04%	0.08%
25	0.04	0.15
30	0.04	0.30
35	0.04	0.49
40	0.10	0.68
45	0.15	0.87
50	0.25	1.06
55	0.49	1.26
60	1.20	1.46

(iii) Termination of Employment

Service related rates for first 5 years of employment. Age related rates after first 5 years of employment

Sample Ages	Years of Service	% Separating Within One Year	
		General Members	Public Safety
ALL	0	20.00%	12.00%
	1	15.00	9.00
	2	12.00	8.00
	3	10.00	7.00
	4	8.00	6.00
25	5 & Over	6.00	4.50
30		6.00	3.90
35		5.00	2.30
40		3.00	0.90
45		2.00	0.50
50		2.00	0.50
55		1.30	0.50
60		1.30	0.50

(iv) Retirement Rates

Age-related rates

**Active Members Retiring within Year
Following Attainment of Indicated Retirement Age**

Age Retiring	% Retiring Within One Year	
	General	Public Safety
50	30%	40%
51	25	40
52	20	30
53	20	30
54	20	30
55	30	40
56	30	30
57	25	30
58	25	30
59	25	30
60	30	40
61	15	15
62	35	20
63	15	15
64	15	15
65	60	60
66	30	30
67	40	40
68	50	50
69	90	70
70	100	100

Members were assumed to be eligible for retirement after attaining age 50 with 25 years of service or age 55 with 20 years of service, or age 60 with 10 or more years of service.

Actuarial Method Used for the Valuation

Normal Cost. Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry age actuarial cost method having the following characteristics:

- ❖ The annual normal costs for each individual active participant, payable from date of hire to date of retirement, are sufficient to accumulate the value of the participant's benefit at the time of retirement;

Financing of Unfunded Actuarial Accrued Liability. Unfunded actuarial accrued liability was amortized 30 years.



Section Five:
Valuation Data



Financial Information

Assets of \$50,000 were reported for this valuation.

Participant Summary**Retirees and Beneficiaries**

As of June 30, 2016, there were 97 retirees included in the valuation, 46 General 47 Public Safety and 4 Fire Specialist retirees and beneficiaries.

Retirees and Beneficiaries

Attained Age	General	Public Safety	Fire Specialist	Totals
40-44		2	1	3
45-49				
50-54	2	2		4
55-59	2	6	1	9
60-64	8	8	2	18
65-69	9	11		20
70-74	4	7		11
75-79	9	7		16
80-84	5	4		9
85-89	3	0		3
90-94	3	0		3
95-99	1	0		1
Totals	46	47	4	97

Active Participants

As of June 30, 2016, there were 41 General and 25 Public Safety active employees.

	General	Public Safety
Number	41	25
Averages		
Age	45.3	42.0
Service	12.9	13.4

**General Active Members - June 30, 2016
Age and Service Distribution**

Attained Age	Service							Totals No.
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	
25-29	3							3
30-34	1	3						4
35-39	1	1	1	1				4
40-44	1		1	4				6
45-49	1	2	2	3	2			10
50-54	2			2	3			7
55-59	1		2				1	4
60-64			1				1	2
65-69			1					1
Total	10	6	8	10	5		1	41

Group Averages:

Age: 45.3 years
Service: 12.9 years

**Public Safety Active Employees - June 30, 2016
Age and Service Distribution**

Attained Age	Service						Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	No.
20-24	1							1
25-29	1							1
30-34		1	2					3
35-39		1	6					7
40-44			2	3				5
45-49			1	1	1	1		4
50-54				3				3
55-59		1	0					1
Total	2	3	11	7	1	1		25

Group Averages:

Age: 42.0 years

Service: 13.4 years