

**CITY OF GRAND RAPIDS FIRE  
OTHER POSTEMPLOYMENT BENEFITS  
ACTUARIAL VALUATION REPORT  
JUNE 30, 2011**

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May 8, 2012

Mr. Scott Buhner  
Chief Financial Officer  
City of Grand Rapids  
300 Monroe Avenue, N. W.  
Grand Rapids, MI 49503

Dear Mr. Buhner:

Submitted in this report are the results of an Actuarial Valuation of the benefit values associated with the employer financed Other Postemployment Benefits provided by the City of Grand Rapids for Firefighters. The date of the valuation was June 30, 2011, effective for the fiscal year beginning July 1, 2011. This report was prepared at the request of the City of Grand Rapids.

The actuarial calculations were prepared for purposes of complying with the requirements of Statements No. 43 and No. 45 of the Governmental Accounting Standards Board (GASB). The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the System's financial reporting requirements may produce significantly different results.

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 may be provided to parties other than the City of Grand Rapids only in its entirety and only with the permission of the City of Grand Rapids.

The valuation was based upon information, furnished by the City, concerning retiree health care benefits, individual members, and financial data. Data was checked for internal consistency, but was not otherwise audited.

To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods.

One or more of the undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



Randall J. Dziubek, ASA, MAAA



Abra D. Hill, ASA, MAAA

RJD/ADH:mrb  
C2482

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## **EXECUTIVE SUMMARY**

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## EXECUTIVE SUMMARY

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### **Annual Required Contribution**

This report presents the Annual Required Contribution calculated in compliance with the accounting requirements of Governmental Accounting Standards Board (GASB) Statement No. 45. In addition, the Plan may need to comply with GASB Statement No. 43. Please consult with legal counsel and your auditors to determine whether you have a Plan for GASB Statement No. 43 purposes.

The Annual Required Contribution (ARC) for the fiscal year beginning July 1, 2011 was determined to be \$3,935,129. Actual claims and/or premiums paid on behalf of retirees may be treated as employer contributions in relation to the ARC and act to reduce the NOO if paid from outside of Plan assets. The expected employer portion of the claims and premium amounts paid during the fiscal year beginning July 1, 2011 are estimated to be \$1,633,770. These amounts reflect the employer portion of the retiree only premium rates and the implicit subsidy for retirees and covered spouses.

For additional details, please see Section A of the report.

### **Additional OPEB Reporting Requirements**

In addition to the annual OPEB cost described above, employers will have to disclose a Net OPEB Obligation (or asset). The Net OPEB Obligation is the cumulative difference between annual OPEB costs and annual employer contributions in relation to the ARC, accumulated from the implementation of GASB Statement No. 45.

The requirements for determining the employer's contributions in relation to the ARC are described in paragraph 13 g. of GASB Statement No. 45. Additional information required to be disclosed in the employer's financial statements is detailed in paragraphs 24 through 27 of GASB Statement No. 45.

## EXECUTIVE SUMMARY (CONCLUDED)

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### **Liabilities and Assets**

The present value of all benefits expected to be paid to current plan members as of June 30, 2011 is \$53,321,806. The actuarial accrued liability, which is the portion of the \$53,321,806 attributable to service accrued by plan members as of June 30, 2011, is \$36,411,404. The assets currently set aside for OPEB purposes as of June 30, 2011 are \$2,556,684.

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**SECTION A**  
VALUATION RESULTS

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**DEVELOPMENT OF THE ANNUAL REQUIRED CONTRIBUTIONS  
FOR THE OTHER POSTEMPLOYMENT BENEFITS**

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<b>Contributions for</b>	<b>Fire Annual Required Contribution</b>
Normal Cost	
Normal Retirement	\$ 880,862
Termination Benefits	160,810
Disability/Death-In-service	<u>744,532</u>
Total Normal Cost	\$ 1,786,204
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 30 years)	\$ 2,148,925
<b>Annual Required Contribution (ARC) for the Fiscal Year beginning July 1, 2011</b>	<b>\$ 3,935,129</b>
<b>Annual Required Contribution (ARC) for the Fiscal Year beginning July 1, 2012</b>	<b>\$ 3,921,500</b>

The unfunded actuarial accrued liabilities were amortized as level dollar. A 30-year amortization period for unfunded actuarial accrued liabilities was used. Thirty years is the maximum period that complies with GASB requirements.



**DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY  
AS OF JUNE 30, 2011**

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	<b>Fire</b>
A. Present Value of Future Benefits	
1. Retirees and Beneficiaries	\$13,939,691
2. Vested Terminated Members	1,070,094
3. Active Members	<u>38,312,021</u>
Total Present Value of Future Benefits	\$53,321,806
B. Present Value of Future Employer Normal Costs	16,910,402
C. Actuarial Accrued Liability (A.-B.)	36,411,404
D. Actuarial Value of Assets	2,556,684
E. Unfunded Actuarial Accrued Liability (C.-D.)	\$33,854,720
F. Funded Ratio (D./C.)	7.0%

The Unfunded Actuarial Accrued Liability (UAAL) is not booked as an expense all in one year and does not appear in the Employer's Statement of Net Assets. Nevertheless, it is reported in the Notes to the Financial Statements and in the Required Supplementary Information. These are information sections within the employer's financial statements. The assumptions used to calculate the results shown above include a 5% investment return rate. This rate is intended to be a blend of a short-term and long-term investment return assumption.

**PROJECTIONS  
AS OF JUNE 30, 2011\***

<b>Year Ending June 30,</b>	<b>Asset Value BOY</b>	<b>Annual Required Contribution</b>	<b>Health Care Benefits</b>	<b>Investment Income</b>	<b>Asset Value EOY</b>
2012	\$ 2,556,684	\$ 3,935,129	\$ 1,633,770	\$ 184,666	\$ 5,042,709
2013	5,042,709	3,921,500	1,856,072	303,141	7,411,278
2014	7,411,278	3,849,298	1,899,318	418,719	9,779,977
2015	9,779,977	3,808,220	2,163,569	529,614	11,954,242
2016	11,954,242	3,756,183	2,447,732	630,024	13,892,717
2017	13,892,717	3,693,825	2,819,468	716,228	15,483,302
2018	15,483,302	3,621,126	3,246,191	783,424	16,641,661
2019	16,641,661	3,540,304	3,657,594	829,187	17,353,558
2020	17,353,558	3,456,811	4,031,944	853,475	17,631,900
2021	17,631,900	3,371,111	4,366,355	857,017	17,493,674
2022	17,493,674	3,284,111	4,564,910	843,054	17,055,929
2023	17,055,929	3,197,890	4,698,188	815,746	16,371,377
2024	16,371,377	3,109,463	4,677,862	779,837	15,582,815
2025	15,582,815	3,020,125	4,711,371	737,375	14,628,944
2026	14,628,944	2,936,046	4,749,341	686,668	13,502,316
2027	13,502,316	2,857,085	4,648,199	630,884	12,342,086
2028	12,342,086	2,781,169	4,433,968	576,288	11,265,575
2029	11,265,575	2,705,507	4,369,614	522,183	10,123,651
2030	10,123,651	2,634,171	4,367,078	463,388	8,854,131
2031	8,854,131	2,571,148	4,079,729	405,452	7,751,003
2032	7,751,003	2,519,293	3,803,375	355,840	6,822,761
2033	6,822,761	2,471,760	3,697,865	310,859	5,907,515
2034	5,907,515	2,422,939	3,401,125	271,219	5,200,548
2035	5,200,548	2,376,258	2,977,440	245,181	4,844,547
2036	4,844,547	2,334,212	2,800,552	230,711	4,608,918
2037	4,608,918	2,299,844	2,577,996	223,577	4,554,343
2038	4,554,343	2,266,907	2,262,542	227,825	4,786,533
2039	4,786,533	2,234,537	1,932,232	246,792	5,335,630
2040	5,335,630	2,208,117	1,746,421	278,183	6,075,509
2041	6,075,509	2,187,807	1,629,278	317,568	6,951,606
2042	6,951,606	48,536	1,644,824	308,160	5,663,478
2043	5,663,478	34,642	1,524,991	246,370	4,419,499
2044	4,419,499	23,684	1,236,471	191,025	3,397,737
2045	3,397,737	16,503	964,933	146,465	2,595,772
2046	2,595,772	11,706	757,463	111,372	1,961,387
2047	1,961,387	8,076	665,977	81,822	1,385,308
2048	1,385,308	5,092	433,294	58,691	1,015,797
2049	1,015,797	3,076	233,974	45,088	829,987
2050	829,987	1,760	236,130	35,712	631,329
2051	631,329	883	247,509	25,476	410,180
2052	410,180	358	203,755	15,486	222,269
2053	222,269	122	111,210	8,370	119,551
2054	119,551	30	75,765	4,107	47,923
2055	47,923	4	41,848	1,363	7,442
2056	7,442	-	7,626	184	0

\* The projected results above are based on the existing active and retired members on the valuation date. Any benefits and/or contributions associated with members hired after the valuation date have not been included in these results.

Unfunded actuarial accrued liabilities were amortized over a 30 year period.

## COMMENTS

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**COMMENT A:** One of the key assumptions used in any valuation of the cost of postemployment benefits is the long-term rate of investment return on plan assets. Higher assumed investment returns will result in a lower Annual Required Contribution (ARC). Lower returns will result in a higher ARC. If a plan sponsor chooses to pre-fund with contributions less than the ARC, the Governmental Accounting Standards Board (GASB) requires using an assumed investment return on assets that reflects the expected return on the plan sponsor's general assets. If a plan sponsor chooses to pre-fund with contributions equal to the ARC a higher interest rate may be used. As directed by the City, we have calculated the liability and the resulting ARC using an assumed investment return of 5.0%.

**COMMENT B:** Based on the number of plan members as of this valuation, the plan sponsor is required by GASB to perform actuarial valuations at least biennially. An annual actuarial valuation will re-compute the required contribution rate each year. This will permit fluctuations and trends in experience to be reflected in the contribution rate on a regular basis.

**COMMENT C:** The contribution rates shown include amortization of the unfunded actuarial accrued liability over 30 years. A shorter amortization period would result in a higher ARC. The maximum time period permitted by GASB Statement No. 45 is 30 years.

**COMMENT D:** Actual claims and/or premiums paid on behalf of retirees may be treated as employer contributions in relation to the ARC and act to reduce the NOO if paid from Plan assets. For the fiscal years ending June 30, 2012, and June 30, 2013 the amount of estimated claims and/or premiums paid by the employer on behalf of retirees including the effect of the implicit rate subsidy under GASB is \$1,633,770 and \$1,856,072 respectively.

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**SECTION B**

RETIREE PREMIUM RATE DEVELOPMENT

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# RETIREE PREMIUM RATE DEVELOPMENT

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## **Background**

The initial per capita health care costs are an important part of a retiree health valuation. We understand that currently, eligible City retirees (and eligible spouses) receive benefits from the self-insured plan. For Non-Medicare Retirees, there is one benefit option and for Medicare retirees, there is a choice of four options with the same medical benefits but differing drug copays.

## **Rate Development**

For the self-insured medical plans, initial per capita costs were developed separately for pre-65 and post-65 retirees using medical claims experience from April 2009 to April 2011 supplied by Meritain in conjunction with exposure data for the retired members of the health care program. These medical claims were projected on an incurred claim basis, adjusted for plan design changes, and loaded for administrative expenses.

For the self-insured drug plans, initial per capita costs were developed using drug claims experience April 2009 to April 2011 supplied by Meritain in conjunction with exposure data for the retired members of the health care program. These drug claims were projected on an incurred claim basis, adjusted for plan design changes and administrative expenses.

No Early Retirement Reinsurance Program (ERRP) reimbursements were reflected in the rates due to the short term nature of the program.

The initial medical and drug premium rates used in the valuation are a weighted average cost of the two-year experience period to smooth out any large year to year fluctuations.

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**RETIREE PREMIUM RATE DEVELOPMENT**

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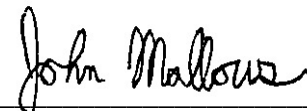
Age graded and sex distinct per capita costs are utilized by this valuation. The initial costs developed are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process “distributes” the average premium over all age/sex combinations and assigns a unique premium for each combination. This process more accurately reflects health care costs in the retired population over the projection period.

The tables below show the combined medical and prescription drug one-person monthly per capita costs at select ages.

<b>Current and Future Retirees</b>			
<b>For Those Not Eligible for Medicare</b>			
<b>Age</b>	<b>Male</b>	<b>Female</b>	
45	\$ 503.71	\$ 659.44	
50	681.47	772.14	
55	890.67	915.52	
60	1,118.93	1,075.54	

The dental and vision per capita costs used in this valuation of the Plan were not “age graded” since these claims do not vary significantly by age. The monthly dental per capita cost used in this valuation is \$34.58 per person per month. The monthly vision per capita cost used in this valuation is \$7.55 per person per month.

The undersigned is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown above.



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John Mallows, FSA, MAAA

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## **SECTION C**

### **SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA**

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**CITY OF GRAND RAPIDS FIRE RETIREE HEALTH CARE PLAN  
DEFINED BENEFIT HEALTH CARE  
SUMMARY OF BENEFITS AS OF JUNE 30, 2011**

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**Plan Participants**

Fire and IAFF members of the City of Grand Rapids Retiree Health Care Plan are eligible to receive retiree health care benefits. City covers up to 100% of retiree health care coverage up to age 65.

**Benefit Amount**

Defined Benefit Retiree Health covers up to 100% of retiree health care coverage up to age 65 based on an accrual schedule. As of 5/12/2009, future retirees will pay a minimum of 10% of BLENDED active/pre65 retiree cost per contract. This is applied before the accrual schedule shown below. Active employees with less than 10 years are no longer eligible for the Defined Benefit plan.

**City Paid Portion of Retiree Health Care Premium**

<b>Years</b>	<b>Months</b>	<b>IAFF</b>
10	120	40%
11	132	44%
12	144	48%
13	156	52%
14	168	56%
15	180	60%
16	192	64%
17	204	68%
18	216	72%
19	228	76%
20	240	80%
21	252	84%
22	264	88%
23	276	92%
24	288	96%
25	300	100%
Disability		100%



**CITY OF GRAND RAPIDS POLICE RETIREE HEALTH CARE PLAN**  
**DEFINED BENEFIT HEALTH CARE**  
**SUMMARY OF BENEFITS AS OF JUNE 30, 2011**

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**Normal Retirement Eligibility**

Age 50 with 10 years.

**Deferred Retirement Benefits**

Deferred retiree health care is available to terminated Police Officers and Sergeants with 10 or more years of service. Deferred benefits begin at age 55.

**Duty/Non-Duty Death-In-Service Retirement Benefits**

No age or service requirement. Benefits are immediate.

**Duty/Non-Duty Disabled Retirement Benefits**

No age or service requirement. Benefits commence immediately for qualified disabled member.

**Benefits for Spouses of Retired Employees**

Spouses of retired employees are eligible to receive health care benefits as long as the retiree is eligible. Coverage continues to surviving spouses of deceased retirees until the earlier of when retiree would have reached age 65 or when the spouse reaches age 65.

**Medicare-Eligible Provisions**

Retirees are required to enroll in Medicare once eligible. Retiree is responsible for paying the full premium for retiree Medicare coverage offered through the City.

**Dental/Vision Coverage**

Same as Retiree Health Care Eligibility Conditions.

**Life Insurance Coverage**

City does not provide life insurance for retirees.

**Opt-Out**

City does not provide Opt-Out payments or payment in lieu of retiree health care coverage for retirees.

**Other Employment and Compensation**

A retiree, spouse or other dependent who has coverage from an employer who provides medical coverage should coordinate benefits, making the City's coverage secondary.

*This is a brief summary of the City of Grand Rapids Retiree Health Care Plan provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.*

**CITY OF GRAND RAPIDS POLICE RETIREE HEALTH CARE PLAN**  
**RHSA MEMBERS**  
**SUMMARY OF BENEFITS AS OF JUNE 30, 2011**

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**Plan Participants**

Fire and IAFF members participating in RHSA through the City of Grand Rapids are eligible to purchase retiree health care benefits until Medicare eligible.

**Benefit Amount**

Defined Contribution RHSA members can purchase retiree health care coverage through the City by paying the full blended (active/pre65 retiree) premium. For Duty Death-In-service retirements and Duty Disability retirements, after RHSA is exhausted, City will resume paying the premiums less any applicable premium sharing amount until such time as the covered person would have reached age 65. Defined contributions paid by the City or the member to the RHSA accounts were not included in this valuation.

**Normal Retirement Eligibility**

Age 50 with 10 years.

**Deferred Retirement Benefits**

Retiree health care is not available to deferred retirees whose coverage ceases during deferral period. RHSA members can purchase retiree health care coverage through the City by paying the full blended (active/pre65 retiree) premium.

**Duty Death-In-Service Retirement Benefits**

No age or service requirement for duty death-in-service. Benefits are immediate. Premiums shall be first paid to the City from funds in the employee's RHSA account if the surviving spouse and/or eligible dependents wish to continue to receive retiree health care. When RHSA is exhausted, the City shall resume paying the premiums, less any applicable premium sharing amount until such time as the covered person would have reached age 65.

**Non-Duty Death-In-Service Retirement Benefits**

No age or service requirement for duty death-in-service. Benefits are immediate.

**Duty Disabled Retirement Benefits**

No age or service requirement. Benefits commence immediately for qualified disabled member. Premiums shall be first paid to the City from funds in the employee's RHSA account if the surviving spouse and/or eligible dependents wish to continue to receive retiree health care. When RHSA is exhausted, the City shall resume paying the premiums, less any applicable premium sharing amount until such time as the covered person would have reached age 65.

**Non-Duty Disabled Retirement Benefits**

No age or service requirement. Benefits commence immediately for qualified disabled member.

**CITY OF GRAND RAPIDS POLICE RETIREE HEALTH CARE PLAN**  
**RHSA MEMBERS**  
**SUMMARY OF BENEFITS AS OF JUNE 30, 2011**

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**Benefits for Spouses of Retired Employees**

Spouses of retired employees are eligible to receive health care benefits as long as the retiree is eligible. Coverage continues to surviving spouses of deceased retirees until the earlier of when retiree would have reached age 65 or when the spouse reaches age 65.

**Medicare-Eligible Provisions**

Retirees are required to enroll in Medicare once eligible. Retiree is responsible for paying the full premium for retiree Medicare coverage offered through the City.

**Dental/Vision Coverage**

Same as Retiree Health Care Eligibility Conditions.

**Life Insurance Coverage**

City does not provide life insurance for retirees.

**Opt-Out**

City does not provide Opt-Out payments or payment in lieu of retiree health care coverage for retirees.

**Other Employment and Compensation**

A retiree, spouse or other dependent who has coverage from an employer who provides medical coverage should coordinate benefits, making the City's coverage secondary.

*This is a brief summary of the City of Grand Rapids Retiree Health Care Plan provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.*

**CITY OF GRAND RAPIDS FIRE**  
**ACTIVE MEMBER DEMOGRAPHIC DATA AS OF JUNE 30, 2011**

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Attained Age	Years of Service to Valuation Date							Total No.
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
25-29	9	3						12
30-34	8	6	4					18
35-39		9	14	2	1			26
40-44	1	4	13	17	4			39
45-49		1	6	20	13	17		57
50-54			1	6	11	22	5	45
55-59		1	1	2	2	3	1	10
60-64			2					2
<b>Totals</b>	<b>26</b>	<b>24</b>	<b>41</b>	<b>47</b>	<b>31</b>	<b>42</b>	<b>6</b>	<b>217</b>

The active member counts above include current active employees who participate in the City's defined contribution plan and are eligible to purchase retiree health benefits through the City.

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 43.4 years  
**Service:** 16.1 years

**CITY OF GRAND RAPIDS FIRE  
 RETIRED AND DEFERRED  
 MEMBER DEMOGRAPHIC DATA AS OF JUNE 30, 2011**

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**Fire Retirees**

Attained Age	Number of Retirees		
	Male	Female	Total
Under 55	18	6	24
55-59	19	4	23
60-64	24	1	25
65 & Over	12	7	19
<b>Totals</b>	<b>73</b>	<b>18</b>	<b>91</b>

**Fire Vested Deferred**

Attained Age	Number of Retirees		
	Male	Female	Total
Under 40	0	0	0
40-44	1	0	1
45-49	2	1	3
50 & Over	0	0	0
<b>Totals</b>	<b>3</b>	<b>1</b>	<b>4</b>

Only retirees and vested deferred members valued in this report are shown in the exhibits above.

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## **SECTION D**

### **ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS**

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## VALUATION METHODS

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

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

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

**Financing of Unfunded Actuarial Accrued Liabilities.** Unfunded Actuarial Accrued Liabilities (UAAL) were amortized on a level dollar basis. The UAAL were determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment is the amount required to fully amortize the UAAL over a 30-year period beginning on the valuation date. This UAAL payment does not reflect any payments expected to be made between the valuation date and the fiscal year for which the contributions in this report have been calculated.

**Rates of Investment Return under a partially funded arrangement.** **5.0% per year**, compounded annually, net of expenses. This rate consists of a real rate of return of 1.5% per year plus a long-term rate of wage growth of 3.5% per year. This assumption is used to equate the value of payments due at different points in time.

The number of active members is assumed to remain constant in the future.

## ACTUARIAL ASSUMPTIONS

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*The rates of salary increase* used for individual members are in accordance with the following table. The assumption is used to project a member's current salary to the salaries upon which future contributions will be based.

Years of Service	% Increase in Salary		
	Merit & Seniority	Base (Economic)	Increase Next Year
0	17.00%	3.50%	20.50%
1	7.00%	3.50%	10.50%
2	6.00%	3.50%	9.50%
3	5.00%	3.50%	8.50%
4	4.00%	3.50%	7.50%
5 & Beyond	1.00%	3.50%	4.50%
Ref	173		

*The mortality tables* used to project the mortality experience of Fire plan members is the 1983 Group Annuity Male and Female Mortality Tables set back three years for males and two years for females. For disabled Fire retirees, the 1983 Group Annuity Male and Female Mortality Tables Set forward 10 years for males and females.

Sample Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.28 %	0.14 %	31.90	36.81
55	0.48	0.21	27.42	32.10
60	0.71	0.34	23.13	27.48
65	1.11	0.58	19.02	23.02
70	1.98	0.97	15.23	18.76
75	3.34	1.85	11.92	14.81
80	5.48	3.45	9.08	11.40



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## ACTUARIAL ASSUMPTIONS (CONTINUED)

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*The rates of normal retirement* used to measure the probability of eligible members retiring under normal retirement conditions during the next year, were as follows:

Retirement Ages	Percent of Eligible Active Members Retiring within Next Year
	Fire
50	25 %
51	25
52	25
53	25
54	25
55	25
56	25
57	25
58	25
59	25
60	25
61	25
62	25
63	25
64	25
65	50
66	60
67	70
68	80
69	90
70	100

## ACTUARIAL ASSUMPTIONS (CONTINUED)

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*Rates of separation from active membership* are used to estimate the number of employees at each age that are expected to terminate employment before qualifying for retirement benefits. The withdrawal rates do not apply to members eligible to retire, and do not include separation on account of death or disability.

Sample rates of separation from active employment are shown below:

<b>Sample Ages</b>	<b>% of Active Members Separating Within Next Year</b>
25	2.76 %
30	2.28
35	1.56
40	1.08
45	0.84
50	0.72
55	0.72
60	0.72

## ACTUARIAL ASSUMPTIONS (CONCLUDED)

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*Rates of disability* among active members are used to estimate the incidence of member disability in future years. 70% of Fire disabilities were assumed to be non-duty related and 30% of disabilities are assumed to be duty related.

<b>Sample Ages</b>	<b>Percent Becoming Disabled Within Next Year</b>
20	0.16 %
25	0.16
30	0.16
35	0.36
40	0.78
45	1.40
50	2.24
55	3.34

*Health care trend rates* used in the valuation were as shown below.

<b>Year</b>	<b>Medical and Prescription Drugs</b>	<b>Dental</b>	<b>Vision</b>
2012	9.5 %	3.5 %	3.5 %
2013	9.0	3.5	3.5
2014	8.5	3.5	3.5
2015	8.0	3.5	3.5
2016	7.5	3.5	3.5
2017	7.0	3.5	3.5
2018	6.5	3.5	3.5
2019	6.0	3.5	3.5
2020	5.5	3.5	3.5
2021	5.0	3.5	3.5
2022	4.5	3.5	3.5
2023	4.0	3.5	3.5
2024 & Later	3.5	3.5	3.5

## MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

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<b>Decrement Operation:</b>	Disability and mortality decrements do not operate during the first five years of service. Disability also does not operate during retirement eligibility.
<b>Decrement Timing:</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing:</b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b>Marriage Assumption:</b>	90% of Fire males and females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
<b>Medicare Coverage:</b>	Assumed to be available for all covered employees on attainment of age 65.
<b>Covered Children:</b>	A 5% load was applied for children's coverage.
<b>Election Percentage:</b>	(Fire) It was assumed that 100% of retirees would choose to receive retiree health care benefits through the City. Of those assumed to elect coverage, 75% of retirees were assumed to elect two-person coverage, if eligible. For those that elect two-person coverage, it was assumed that coverage would continue to the spouse upon death of the retiree 100% of the time, if eligible.
<b>Retiree Opt-Outs:</b>	Retirees and spouses who have opted out of coverage are assumed to not re-enroll.

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## **SECTION E**

### **GASB DISCLOSURES**

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**This information is presented in draft form for review by the Plan and/or City auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the Plan and/or City financial statements.**

**GASB STATEMENTS NO. 43 AND NO. 45**  
**REQUIRED SUPPLEMENTARY INFORMATION**

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Valuation Date	June 30, 2011
Actuarial Cost Method	Individual Entry Age Normal Cost
Amortization Method	Level Dollar Closed
Remaining Amortization Periods	30 Years
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Discount Rate	5.0% Per Year
Projected Salary Increases Police/Fire	4.50% - 20.50%
Valuation Health Care Cost Trend Rate	9.5% in 2012, grading to 3.5% in 2024

**GASB STATEMENTS NO. 43 AND NO. 45  
REQUIRED SUPPLEMENTARY INFORMATION**

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**Schedule of Funding Progress**

Actuarial Valuation Date June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)
2009	\$ 0	\$ 44,488,777	\$ 44,488,777	0.0 %
2011	2,556,684	36,411,404	33,854,720	7.0 %

**Calculation of Net OPEB Obligation**

Valuation Date June 30	Fiscal Year Ending June 30	Annual Required Contribution	Annual OPEB Costs	Percentage of ARC Contributed	Percentage of OPEB Costs Contributed	Net OPEB Obligation
						\$ 3,365,847
2009	2010	\$ 3,574,369	\$ 3,537,668	N/A	N/A	N/A
2009	2011	N/A	N/A	N/A	N/A	N/A
2011	2012	3,935,129	N/A	N/A	N/A	N/A
2011	2013	3,921,500				

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**APPENDIX A**  
OVERVIEW

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## **GASB BACKGROUND**

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The purpose of this valuation is to provide information on the cost associated with providing postemployment benefits other than pensions, or OPEB, to current and former employees. The information is designed to assist you in complying with Governmental Accounting Standards Board (GASB) Statements No. 43 and No. 45. OPEB benefits are most often associated with postemployment health care, but cover almost any benefit not provided through a pension plan, including life insurance, dental and vision benefits. It is important to note that OPEB benefits, by definition, do not include benefits *currently* being provided to active employees – however, this report includes the liabilities for benefits expected to be paid to current active employees in the future when they retire.

GASB Statements No. 43 and No. 45 were released in the spring of 2004. GASB Statement No. 43 covers the accounting rules for OPEB *plans* while GASB Statement No. 45 describes the rules for *employers* sponsoring OPEB plans. Your auditor can assist you in determining which statements apply to your particular situation.

The specific items required to be disclosed on an OPEB sponsor's financial statements are described in detail in GASB Statements No. 43 and No. 45.

### **GASB Statement No. 45**

Among the requirements of Statement No. 45 are recognition each year of an expense called the Annual OPEB Cost, and the accumulation of a liability to be disclosed on the employer's Statement of Net Assets called the Net OPEB Obligation (NOO).

The fundamental items required to determine the Annual OPEB Cost and the NOO are:

- the Annual Required Contribution (ARC)
- the Employer's Contributions in relation to the ARC

Although GASB does not require OPEB contributions, it has chosen to call the base component of the annual OPEB cost the Annual Required Contribution. The ARC is provided in this report.

## **GASB BACKGROUND (CONCLUDED)**

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Paragraph 13g. of Statement No. 45 states:

“An employer has made a contribution in relation to the ARC if the employer has:

1. made payments of benefits directly to or on behalf of a retiree or beneficiary,
2. made premium payments to an insurer, or
3. irrevocably transferred assets to a trust, or equivalent arrangement in which Plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the Plan and are legally protected from creditors of the employer(s) or plan administrator.”

For each fiscal year shown in this report, we have provided the ARC and the estimated benefits and/or premiums (based on valuation assumptions).

The NOO is the cumulative difference between the Annual OPEB Cost each year and the Employer’s Contribution in relation to the ARC. The Annual OPEB Cost for a year is equal to:

- the ARC, plus
- interest on the prior year’s NOO, plus
- amortization of the prior year’s NOO.

The Annual OPEB Cost and NOO are generally developed by the Plan Sponsor’s auditor based on information contained herein and elsewhere.

### **GASB Statement No. 43**

If the Plan has assets for Statement No. 43 purposes, then certain additional information useful in complying with the Statement is contained in this report.

## OPEB PRE-FUNDING

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Many employers fund retiree health care benefits using the pay-as-you-go (or cash disbursement) method. Under this method, the employer's annual contribution is equal to the actual disbursements during the year for OPEB for retired employees. This method of funding will result in increasing contributions over time. First, per capita cash disbursements will tend to increase from year to year as the cost of health care services, or the utilization of these services increase. Second, the number of retired members is likely to increase for years to come. The more retirees, the greater the disbursements as a percentage of employee payroll.

A retiree health care plan is similar to a defined benefit pension plan in that promises are made to employees to provide them with a benefit payable at some future date. For defined benefit pension plan sponsors, a common funding objective is to contribute to a fund, annual amounts which will i) remain level as a percentage of active member payroll, and ii) when combined with present assets and future investment return be sufficient to meet the financial obligations of the Plan to current and future retirees.

The GASB statements are not funding requirements. They are accounting standards that require plan sponsors to calculate the annual expense associated with OPEB using certain methods.

The ultimate determination as to the level of pre-funding will be the result of decisions made in an attempt to support benefit security for members and the fiscal management needs of the employer.

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## **APPENDIX B**

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## GLOSSARY

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**Accrued Service** - The service credited under the plan which was rendered before the date of the actuarial valuation.

**Actuarial Accrued Liability** - The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

**Actuarial Assumptions** - Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Actuarial Cost Method** - A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

**Actuarial Equivalent** - A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

**Actuarial Present Value** - The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Amortization** - Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

## **GLOSSARY (CONCLUDED)**

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**Annual Required Contribution (ARC)** - The ARC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ARC is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

**Governmental Accounting Standards Board (GASB)** - GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

**Medical Trend Rate (Health Care Inflation)** - The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

**Normal Cost** - The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Other Postemployment Employee Benefits (OPEB)** - OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other health care benefits.

**Reserve Account** - An account used to indicate that funds have been set aside for a specific purpose and is not generally available for other uses.

**Unfunded Actuarial Accrued Liability** - The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

**Valuation Assets** - The value of current plan assets recognized for valuation purposes.

May 8, 2012

Mr. Scott Buhner  
Chief Financial Officer  
City of Grand Rapids  
300 Monroe Avenue, N. W.  
Grand Rapids, MI 49503

**Re: City of Grand Rapids Fire Other Postemployment Benefits Valuation**

Dear Mr. Buhner:

Enclosed are 4 copies of our report of the actuarial valuation as of June 30, 2011 of the City of Grand Rapids Fire Other Postemployment Benefits.

Respectfully submitted,



Randall J. Dziubek, ASA, MAAA

RJD:mrh  
Enclosures