Gabriel Roeder Smith & Company
Consultants & Actuaries

CITY OF GRAND RAPIDS POLICE AND FIRE RETIREMENT SYSTEM

GASB STATEMENT NO. 67 PLAN REPORTING AND ACCOUNTING SCHEDULES

DECEMBER 31, 2014

GRS
Gabriel Roeder Smith & Company
Consultants & Actuaries
One Towne Square
Suite 800
Southfield, MI 48076-3723
248.799.9000 phone
248.799.9020 fax
www.gabrielroeder.com

April 2, 2015

The Board of Trustees
City of Grand Rapids Police
and Fire Retirement System
Grand Rapids, Michigan

Dear Board Members:

This report provides information required by the Retirement System in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67 "Financial Reporting for Pension Plans."

Our actuarial calculations for this report were prepared for the purpose of complying with the requirements of GASB Statement No. 67. These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement No. 67. The calculation of the plan's liability for this report may not be applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement No. 67 may produce significantly different results. This report may be provided to parties other than the City of Grand Rapids Police and Fire Retirement System ("the System") only in its entirety and only with the permission of the System.

The report was based upon information, furnished by System staff, concerning System benefits, financial transactions, and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the data provided by System staff.

To the best of our knowledge, this report is complete, accurate, and in accordance with generally recognized actuarial methods. James D. Anderson is a member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

James D. Anderson

James D. Anderson, FSA, MAAA

David L. Hoffman

David L. Hoffman

JDA\DLH:mrb

TABLE OF CONTENTS

SECTION A

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY
AS OF DECEMBER 31, 2014

Actuarial Valuation Date		December 31, 2014
Pension Plan's Fiscal Year Ending Date (Measurement Date & Reporting Date)		December 31, 2014
Membership		
Number of		
- Retirees and Beneficiaries		655
- Inactive, Nonretired Members		30
- Active Members		487
- Total		1,172
Covered Payroll#	$	35,710,964
Net Pension Liability		
Total Pension Liability	$	403,969,869
Plan Fiduciary Net Position		406,826,458
Net Pension Liability	$	(2,856,589)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		100.71%
Net Pension Liability as a Percentage of Covered Payroll		(8.00)%
Development of the Single Discount Rate		
Single Discount Rate		7.50%
Long-Term Expected Rate of Return		7.50%
Long-Term Municipal Bond Rate		3.56%
Last year ending January 1 in the 2015 to 2114 projection period for which projected benefit payments are fully funded		2114

 # Reported rates of pay adjusted by gross-up factors to estimate covered payroll.

DISCUSSION

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67, "Financial Reporting for Pension Plans," replaces the requirements of Statement No. 25, "Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans," and Statement No. 50, "Pension Disclosures." Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability of employers and non-employer contributing entities for benefits provided through the pension plan.

The following discussion provides a summary of the information that is required to be disclosed under this new accounting standard. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report, and your internal staff will be responsible for preparing that information to comply with this accounting standard.

Financial Statements

Statement No. 67 requires defined benefit pension plans to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position.

The *statement of fiduciary net position* presents the following items as of the end of the pension plan's reporting period, such as:

- assets;
- deferred inflows and outflows of resources;
- liabilities; and
- fiduciary net position (assets, plus deferred outflows, minus liabilities, minus deferred inflows).

The *statement of changes in fiduciary net position* presents the following for the plan's reporting period:

- additions, such as contributions and investment income;
- deductions, such as benefit payments and expenses; and
- net increase or decrease in the fiduciary net position (the difference between additions and deductions).

Notes to Financial Statements

GASB Statement No. 67 also requires the notes of the plan's financial statements to include additional disclosure information. This disclosure information should include:

- a description of the types of benefits provided by the plan, as well as automatic or ad hoc COLAs;
- the number and classes of employees covered by the benefit terms;
- the composition of the pension plan's board and the authority under which benefit terms may be amended;
- a description of the plan's funding policy, which includes member and employer contribution requirements;
- the pension plan's investment policies;
- a description of how fair value is determined;
- concentrations of investments greater than or equal to 5%;
- annual money-weighted rate of return on pension plan investments;
- the portion of the present value of benefits to be provided through the pension plan to current active and inactive plan members;
- the pension plan's fiduciary net position;
- the net pension liability;
- the pension plan's fiduciary net position as a percentage of the total pension liability;
- significant assumptions and methods used to calculate the total pension liability;
- inputs to the discount rates; and
- certain information about mortality assumptions and the dates of experience studies.

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- sources of changes in the net pension liability;
- information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll;
- comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy; and
- the annual money-weighted rate of return on pension plan investments for each year.

These tables may be built prospectively as the information becomes available.

Measurement of the Net Pension Liability

The net pension liability is to be measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. If the actuarial valuation is not calculated as of the plan's fiscal year end, the total pension liability is required to be rolled forward from the actuarial valuation date to the pension plan's fiscal year end.

The total pension liability shown in this report is based on an actuarial valuation performed as of December 31, 2014 and a measurement date of December 31, 2014.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.50%; the municipal bond rate is 3.56% (based on the weekly rate closest to but not later than the measurement date of the 20-Year Bond Buyer Index as published by the Federal Reserve); and the resulting single discount rate is 7.50%.

Effective Date and Transition

GASB Statement No. 67 is effective for a pension plan's fiscal years beginning after June 15, 2013.

SECTION B

FINANCIAL STATEMENTS

STATEMENT OF FIDUCIARY NET POSITION AS OF DECEMBER 31, 2014

Assets	
Cash and Deposits	$ 4,501,621
Receivables	
Accounts Receivable - Sale of Investments	$ -
Accrued Interest and Other Dividends	493,846
Contributions	397,863
Accounts Receivable - Other	1,125,000
Total Receivables	$ 2,016,709
Investments	
Fixed Income	118,597,861
Domestic Equities	182,107,196
International Equities	57,487,189
Real Estate	20,781,295
Other	22,966,359
Total Investments	$ 401,939,900
Total Assets	$ 408,458,230
Liabilities	
Payables	
Accounts Payable - Purchase of Investments	$ 1,343,188
Accrued Expenses	288,584
Accounts Payable - Other	-
Total Liabilities	$ 1,631,772
Net Position Restricted for Pensions	$ 406,826,458

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR YEAR ENDED DECEMBER 31, 2014

Additions	
Contributions	
Employer	$ 6,331,848
Employee	4,563,692
Other	-
Total Contributions	$ 10,895,540
Investment Income	
Net Appreciation in Fair Value of Investments	$ 26,179,599
Interest and Dividends	4,172,368
Less Investment Expense	(961,065)
Net Investment Income	$ 29,390,902
Other	$ -
Total Additions	$ 40,286,442
Deductions	
Benefit Payments, including Refunds of Employee Contributions	$ 21,103,787
Pension Plan Administrative Expense	523,607
Other	15,065
Total Deductions	$ 21,642,459
Net Increase in Net Position	$ 18,643,983
Net Position Restricted for Pensions	
Beginning of Year	$ 388,182,475
End of Year	$ 406,826,458

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS
ULTIMATELY 10 FISCAL YEARS WILL BE DISPLAYED

Fiscal year ending December 31,	2014
Total Pension Liability	
Service Cost	$ 7,794,219
Interest on the Total Pension Liability	28,440,421
Benefit Changes	-
Difference between Expected and Actual Experience	2,978,624
Assumption Changes	-
Benefit Payments	(21,079,038)
Refunds	(24,749)
Net Change in Total Pension Liability	18,109,477
Total Pension Liability - Beginning	385,860,392
Total Pension Liability - Ending (a)	$403,969,869
Plan Fiduciary Net Position	
Employer Contributions	$ 6,331,848
Employee Contributions	4,563,692
Pension Plan Net Investment Income	29,390,902
Benefit Payments	(21,079,038)
Refunds	(24,749)
Pension Plan Administrative Expense	(523,607)
Other	(15,065)
Net Change in Plan Fiduciary Net Position	18,643,983
Plan Fiduciary Net Position - Beginning	388,182,475
Plan Fiduciary Net Position - Ending (b)	$406,826,458
Net Pension Liability - Ending (a) - (b)	(2,856,589)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	100.71 %
Covered Employee Payroll#	$ 35,710,964
Net Pension Liability as a Percentage of Covered Employee Payroll	(8.00)%
Notes to Schedule:	N/A

 # Reported rates of pay adjusted by gross-up factors to estimate covered payroll.

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF THE EMPLOYERS' NET PENSION LIABILITY
ULTIMATELY 10 FISCAL YEARS WILL BE DISPLAYED

FY Ending December 31,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll#	Net Pension Liability as a % of Covered Payroll
2014	$ 403,969,869	$ 406,826,458	$ (2,856,589)	100.71%	$ 35,710,964	(8.00)%

 # Reported rates of pay adjusted by gross-up factors to estimate covered payroll.

SCHEDULE OF CONTRIBUTIONS
ULTIMATELY 10 FISCAL YEARS WILL BE DISPLAYED

FY Ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll#	Actual Contribution as a % of Covered Payroll *
2014	$ 6,331,848	$ 6,331,848	$ -	$ 35,710,964	17.73%

Reported rates of pay adjusted by gross-up factors to estimate covered payroll.

* *Actual contributions are based on covered payroll at the time of the contribution. Since it was reported to the actuary that the City's practice is to contribute the percent-of-payroll employer contribution rate shown in the actuarial valuation report, the annual required contributions shown in the Schedule of Employer Contributions are the actual contributions made by the City in the fiscal year.*

NOTES TO SCHEDULE OF CONTRIBUTIONS

Valuation Date:	December 31, 2014
Notes:	Actuarially determined contribution rates are calculated as of December 31, which is six months prior to the beginning of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	24 years per City Commission
Asset Valuation Method	5-year smoothed market
Inflation	3.5% -- approximate; No explicit price inflation assumption is used in this valuation.
Salary Increases	3.5% to 20.5% including inflation
Investment Rate of Return	7.36% (7.50% for groups receiving annual postretirement increases, 7.25% for groups participating in the 13th check program).
Cost-of-living adjustments:	Ad hoc “13th check” tied to plan investments for benefit recipients who do not have an automatic benefit increase. 1.5% simple escalator for firefighters retired on or after July 1, 2007 with commencement delayed 2 years after retirement. 1.0% simple escalator for police command officer retired on or after February 19, 2010 with commencement delayed 5 years after retirement. 1.0% simple escalator for police officers and sergeants retired on or after December 17, 2008 with commencement delayed 5 years after retirement.
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	1983 Group Annuity Male and Female Mortality Tables set back 3 years for males and 2 years for females. Based on observation from the most recent experience study, it appears that the current table provides a margin of 11% for future mortality improvements for males. There were insufficient numbers of female retired members to lend credibility to any comments regarding a margin for future mortality improvements. This assumption was first used for the December 31, 2005 valuation.

Other Information:

Notes	There were no benefit changes during the year.

SECTION D

NOTES TO FINANCIAL STATEMENTS

Long-Term Expected Return on Plan Assets

The assumed rate of investment return was adopted by the plan's trustees after considering input from the plan's investment consultant(s) and actuary(s). Additional information about the assumed rate of investment return is included in our actuarial valuation report as of December 31, 2014 and the 2004 – 2009 five-year experience study. The assumed rate of investment return falls within a reasonable range of the long-term expected rate of return.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. For each major asset class that is included in the pension plan's target asset allocation as of December 31, 2014, these best estimates are summarized in the following table:

Investment Consultant	Investment Consultant Expected Nominal Return	Investment Consultant Inflation Assumption	Expected Real Return (2)–(3)	Actuary Inflation Assumption	Expected Nominal Return (4)+(5)	Administrative Expenses	Expected Nominal Return Net of Expenses (6)-(7)	Standard Deviation of Expected Return (1-Year)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	6.91%	3.00%	3.91%	3.00%	6.91%	0.20%	6.71%	12.70%
2	6.86%	2.75%	4.11%	3.00%	7.11%	0.20%	6.91%	12.00%
3	6.83%	2.50%	4.33%	3.00%	7.33%	0.20%	7.13%	12.50%
4	6.89%	2.22%	4.66%	3.00%	7.66%	0.20%	7.46%	11.50%
5	7.40%	2.20%	5.20%	3.00%	8.20%	0.20%	8.00%	13.10%
6	7.65%	2.25%	5.40%	3.00%	8.40%	0.20%	8.20%	13.50%
7	7.69%	2.26%	5.43%	3.00%	8.43%	0.20%	8.23%	11.80%
8	8.09%	2.50%	5.59%	3.00%	8.59%	0.20%	8.39%	13.00%
Average	**7.29%**	**2.46%**	**4.83%**	**3.00%**	**7.83%**	**0.20%**	**7.63%**	**12.51%**

Asset Allocation

Asset Class	Target Allocation
Domestic Equity	40%
International Equity	15%
Fixed Income	30%
Real Estate	5%
Private Equity	5%
Commodities	5%
	100%

The target allocation figures in the above table were supplied by the administrative staff of the retirement plan. Gabriel, Roeder, Smith and Company does not provide investment advice.

Single Discount Rate

A single discount rate of 7.50% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.50%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.50%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 100 basis points lower or 100 basis points higher:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

100 Basis Point Decrease	Current Single Discount Rate Assumption	100 Basis Point Increase
6.50%	**7.50%**	**8.50%**
$ 45,517,797	$ (2,856,589)	$ (43,490,606)

Summary of Population Statistics

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	655
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	30
Active Plan Members	487
Total Plan Members	1,172

SECTION E

SUMMARY OF BENEFITS

SUMMARY OF BENEFIT PROVISIONS EVALUATED DECEMBER 31, 2014

Voluntary Retirement. Police members may retire after attaining age 50 and completing 10 years of service. Firefighter members are eligible for retirement after attaining age 55 with 10 or more years of service. Firefighter members may also retire at the age their service reaches the service credit limit.

Compulsory Retirement. None.

Final Average Salary (FAS). The average of member's highest annual salary rates during the 3 consecutive calendar years of credited service when such compensation rates are the highest increased by the applicable FAS Adjustment Factor (11.3% Police members for the period January 1, 2014 to June 30, 2014, and 11.2% for Police members for the period July 1, 2014 to December 31, 2014, 8.2% Firefighter members for the period January 1, 2014 to June 30, 2014, and 7.8% for Firefighter members for the period July 1, 2014 to December 31, 2014). Highest salary rates that occur in calendar years after the calendar year in which the member reaches their service credit limit will not be included in the FAS.

Benefit Multiplier Description. See page 15.

Benefit Multiplier. The member's benefit multiplier, used to compute full age and service allowance, is defined in the following table:

Benefit Multipliers and Allowance Caps for Member Groups

Covered Group	*Date of Hire*	*Benefit Multiplier*	*Allowance Cap*
Firefighters	Prior to July 1, 1992	2.5%	100%
	-or-		
	Prior to July 1, 1992	2.8%	94.5%
	July 1, 1992 to January 9, 2012	2.8%	90%
	January 10, 2012 or after	2.0%*	90%
Fire Chief	At any time	2.8%	94.5%
Police Command	Prior to July 1, 2001	2.8%	100%
	July 1, 2001 to December 19, 2011	2.8%	80%
	December 20, 2011 or after	2.0%@	80%
Police Chief or Deputy Police Chief	At any time	2.8%	100%
Police Officers and Sergeants	Before March 9, 1995	2.8%	100%
	March 9, 1995-June 30, 2001	2.8%	87.5%
	July 1, 2001 to December 19, 2011	2.8%	80%
	December 20, 2011 or after	2.0%#	80%

* *Firefighter members hired on or after January 10, 2012 will have a 2.0% multiplier for the first five years of employment. Members may then irrevocably elect that multiplier, or, by making higher member contributions, elect a higher multiplier for all future service (2.2%, 2.4%, 2.6%, or 2.8%).*

@ *Police Command members hired on or after December 20, 2011 will have a 2.0% multiplier for the first five years of employment. Members may then irrevocably elect that multiplier, or, by making higher member contributions, elect a higher multiplier for all future service (2.2%, 2.4%, 2.6%, or 2.8%).*

Police Officers and Sergeants members hired on or after December 20, 2011 will have a 2.0% multiplier for the first five years of employment. Members may then irrevocably elect that multiplier, or, by making higher member contributions, elect a higher multiplier for all future service (2.2%, 2.4%, 2.6%, or 2.8%).

Full Age and Service Allowance. Allowance, payable monthly for life to the retired member, equals the member's benefit multiplier times the member's FAS times years of credited service. In lieu of this single life-level amount form of payment, a retiring member may elect from a variety of optional forms of payment, each of which is the actuarial equivalent (same lump sum value at time of retirement) of the single life-level payment form.

Deferred Allowance. A member with 10 or more years of service who leaves covered employment before retirement is eligible to receive an allowance computed in the same manner as an age and service allowance but based upon the member's employment record to the time of leaving. Such deferred allowance commences the first day of the calendar month next following the later of the date of the member's attainment of age 50 or the date when written application therefore is received by the Board. Benefits may be actuarially reduced in accordance with the Early Retirement provision if applicable.

Early Allowance. A Firefighter member who leaves covered employment after both attaining age 50 and completing 10 years of service is eligible to receive an immediate early allowance (in lieu of a deferred allowance), computed in the same manner as a deferred allowance based upon the member's employment record to the time of early retirement, but actuarially reduced (per schedule in ordinance) to reflect the fact that the age when payments begin is younger than age 55.

Duty Disability Allowance. A member who becomes totally and permanently disabled from duty-connected causes is eligible to receive, subject to offsets, a duty disability allowance computed in the same manner as a full age and service allowance based upon the member's employment record to the time of disability with a minimum allowance before offset of 72% of FAS. The maximum allowance after offsets is 90% of final salary less amounts received from (i) Worker's Compensation, (ii) gainful employment as a law enforcement officer or firefighter, and (iii) Social Security disability income.

Non-Duty Disability Allowance. A member with 1 or more years of credited service who becomes totally and permanently disabled from other than duty-connected causes is eligible to receive a non-duty disability allowance computed in the same manner as a full age and service allowance, based upon the member's employment record to the time of disability. Minimum benefit for Police Officers is 48% of FAS if credited service is less than 20 years or 60% of FAS if credited service is 20 or more years. Minimum benefit for Police Command Officers is based on the earlier of (i) the date the member would have completed 20 (if credited service is less than 20 years) or 25 years of service (if credited service is 20 or more years) or (ii) the date the member would have reached 50 years of age. Minimum benefit for Firefighters is based on the earlier of (i) the date the member would have completed 20 (if credited service is less than 20 years) or 25 years of service (if credited service is 20 or more years) or (ii) the date the member would have reached 55 years of age.

Death-in-Service Benefits. Upon the death of a member, surviving dependents are eligible to receive the following benefits, subject to offsets for Worker's Compensation and Social Security.

(a) The widow receives an allowance equal to the Option B-100 allowance (joint and 100% survivor actuarial equivalent benefit) which would have been payable to her had the deceased member retired the day preceding the date of his death and elected Option B-100. The minimum allowance payable to the widow is 20% of the member's FAS. If the death was determined to be duty-related, the minimum allowance payable to the widow is 72% of the member's final average salary (60% for Command or Firefighters hired after June 30, 1992).

(b) Dependent children under age 18 (up to age 23 if they are continuous full-time students) each are eligible to receive an allowance of 15% of the member's FAS. If there are 4 or more dependent children, each child receives an equal share of 50% of the member's FAS.

(c) If there are neither a widow nor children, each dependent parent is eligible to receive an allowance equal to 15% of FAS.

Compensation. Compensation upon which members contribute includes base pay, longevity pay, educational increment and vacation pay, plus the following additional compensation items:

> Firefighters: Overtime pay (assumed to be 4.2% for calendars years before 2010 and actual overtime in 2010 and later), holiday pay, clothing allowance, acting assignment pay, shop pay and shift pay. In addition, up to sic (6) days of unused vacation time may be converted to compensation.
>
> Police Officers and Police Command Officers: Overtime pay, comp. payoff, holiday pay, clothing allowance, acting assignment, witness fees and shift pay.

The average of the additional compensation items is used to annually adjust the FAS Adjustment Factor. In addition, compensation will not include any amount that would cause the System to be in violation of IRC Sections 401(a) (17) or 415(d).

Member Contributions. Effective July 1, 2013, member contribution rates shall be payable in accordance with the following table.

System Funding Represented As a Percentage of Valuation Assets to Actuarial Accrued Liabilities	Firefighters	Police Officers & Sergeants	Police Command
Below 100%	10.70%	9.86%	10.89%
100% - 104.999%	9.70%	8.86%	9.89%
105% - 109.999%	8.70%	7.86%	8.89%
110% - 114.999%	7.70%	6.86%	7.89%
115% - 119.999%	6.70%	5.86%	6.89%
120% - 124.999%	6.70%	5.20%	6.06%
125% - 129.999%	6.70%	4.54%	5.23%
130% - 134.999%	6.70%	3.88%	4.40%
135+%	6.70%	3.22%	3.57%

The member contribution rates used for the December 31, 2014 valuation were 10.70%, 9.86%, 10.89%, 10.20%, and 10.20% for Firefighters, Police Officers and Sergeants, Police Command Officers, Police Chief and Deputy Police Chiefs, and Fire Chief respectively.

If a member terminates employment before any allowance is payable, accumulated contributions (contributions plus regular interest) are refunded.

Employer Contributions. The City contributes the remainder amounts necessary to maintain the Retirement System in sound financial condition in accordance with its funding objectives.

Automatic Post-Retirement Benefit Increases. Post-retirement benefit increases are paid to eligible groups as described in the following table.

	Firefighters	**Police Officer and Sergeants**	**Police Command**
Effective date	Retired on or after July 1, 2007	Retired on or after December 17, 2008	Retired on or after February 19, 2010
Amount of increase	1.5% of original benefit	1.0% of original benefit	1.0% of original benefit
First increase to occur	2 years after retirement	5 years after retirement	5 years after retirement

Benefit recipients who are eligible for the automatic post-retirement increase do not participate in the 13^{th} check program.

13th Check. For members not eligible for automatic post-retirement increases, one-half of net investment income over 8% which is attributable to retired life assets is distributed annually (in January) to retired members and beneficiaries who have been on the retirement rolls for 5 years in the form of a 13th check. Net investment income is based on a market value rate of return averaged over the preceding 5 plan years. The distribution is in proportion to points. An individual's points are determined by multiplying (i) the number of full years of retirement, to a maximum of 15, by (ii) the number of years, and fractions thereof, of service at retirement. Subsequent to the calculations above, the benefit so calculated for Chief of Police, Deputy Chief, Police Command, Police Officers and Sergeants, Firefighter Service, and beneficiaries having had at least 10 years of service under either bargaining unit shall be increased by twenty percent.

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

VALUATION METHODS

Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using the individual entry-age actuarial cost method having the following characteristics:

(i) The annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate the value of the portion 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.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions over a closed period of 24 years.

Valuation Asset Method. ***Valuation Assets*** were determined using a method which phases-in each year's differences between actual and assumed investment return over a closed five-year period.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION ADOPTED BY THE BOARD OF TRUSTEES

The actuary calculates contribution requirements and actuarial present values of the System by applying assumptions to the benefit provisions and census data information furnished, using the valuation methods described on the previous page.

The principal areas of financial risk which require assumptions about future experiences are:

(i) Long-term rates of investment return to be generated by the assets of the System,
(ii) patterns of pay increases to members,
(iii) rates of mortality among members, retirants and beneficiaries,
(iv) rates of withdrawal of active members,
(v) rates of disability among members, and
(vi) the age patterns of actual retirement.

In a valuation, the actuary calculates the monetary effect of each assumption for as long as a present covered person survives - - - a period of time which can be as long as a century.

Actual experience will not coincide exactly with assumed experience, regardless of the wisdom of the assumptions, or the skill of the actuary and the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations).

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

Service at Beginning of Year	Salary Increase Assumptions For an Individual Member		
	Merit & Seniority	**Base (Economic)**	**Increase Next Year**
1	17.0%	3.5%	20.5%
2	7.0	3.5%	10.5
3	6.0	3.5%	9.5
4	5.0	3.5%	8.5
5	4.0	3.5%	7.5
6 and over	1.0	3.5%	4.5

These rates were first used for the December 31, 2010 valuation.

If the number of active members remains constant, then the total active member payroll will increase 3.5% annually, the base portion of the individual salary increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities.

The rate of investment return was 7.50% a year compounded yearly (net after expenses and before adjustment for the 13th check program). This assumption is used to make money payable at one point in time equal in value to a different amount of money payable at another point in time. This assumption was first used for the December 31, 2010 valuation.

The assumed real return for funding purposes is the rate of return in excess of average salary increases.

The mortality table was the 1983 Group Annuity Mortality Table set back three years for males and two years for females. Related values are shown below.

Sample	Value at Retirement of $1 Monthly for Life		Future Life Expectancy (Years)	
Ages	Men	Women	Men	Women
50	$142.39	$149.52	31.90	36.81
55	135.01	143.78	27.42	32.10
60	125.92	136.25	23.13	27.48
65	114.57	126.63	19.02	23.02
70	101.23	114.62	15.23	18.76
75	87.08	100.30	11.92	14.81
80	72.40	85.10	9.08	11.40

This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. This assumption was first used for the December 31, 2005 valuation.

Based on observation from the most recent experience study, it appears that the current table provides a margin of 11% for future mortality improvements for males. There were insufficient numbers of female retired members to lend credibility to any comments regarding a margin for future mortality improvements.

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

Retirement Ages	Percent	Retirement Ages	Percent
50	25%	60	50%
51	25%	61	60%
52	25%	62	70%
53	25%	63	80%
54	25%	64	90%
55	25%	65	100%
56	25%	66	100%
57	25%	67	100%
58	25%	68	100%
59	25%	69	100%
		70	100%

A Police member is eligible for retirement after both attaining age 50 and completing 10 or more years of service. Fire members are eligible after attaining age 55 with 10 or more years of service or at the age their service reaches the service credit limit.

Rates of separation from active membership were as follows:

(Rates do not apply to members eligible to retire and do not include separation on account of death or disability.) This assumption measures the probabilities of members remaining in employment. These rates were first used for the December 31, 2010 valuation.

Sample Ages	% of Active Members Separating Within Next Year	
	Police	**Fire**
25	4.60%	2.76%
30	3.80	2.28
35	2.60	1.56
40	1.80	1.08
45	1.40	0.84
50	1.20	0.72
55	1.20	0.72
60	1.20	0.72

The rates of disability were as follows:

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Police	**Fire**
20	0.08%	0.16%
25	0.08	0.16
30	0.08	0.16
35	0.18	0.36
40	0.39	0.78
45	0.70	1.40
50	1.12	2.24
55	1.67	3.34

		Duty Related	**Non-Duty Related**
Cause of Disability:	Male	90%	10%
	Female	90%	10%

SUMMARY OF ASSUMPTIONS USED
DECEMBER 31, 2014
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption. 90% of males and 90% of females are assumed to be married for purposes of death-in-service benefits.

Pay Increase Timing. Beginning of (Fiscal) year. Reported pays represent amounts paid to members during the year ended on the valuation date.

Decrement Timing. Decrements of all types are assumed to occur mid-year.

Eligibility Testing. 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.

Benefit Service. Exact fractional service is used to determine the amount of benefit payable.

Decrement Relativity. Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

Liability Adjustments. Retirement present values were increased by 11.2% and 7.8% for police and fire, respectively, to account for the FAS Adjustment Factor.

13th Check. The investment return assumption is reduced by 0.25% for members eligible to participate in the 13th Check program.

Normal Form of Benefit. The assumed normal form of benefit is the straight life form.

Incidence of Contributions. Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

New Benefit Multiplier. Benefits for new hires will be modeled using the 2.0% benefit multiplier for all future years of service until such time that they elect another benefit multiplier.

SECTION G

CALCULATION OF THE SINGLE DISCOUNT RATE

CALCULATION OF THE SINGLE DISCOUNT RATE

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a “risk-free” rate is required, as described in the following paragraph.

The S*ingle Discount Rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.50%; the municipal bond rate is 3.56%; and the resulting single discount rate is 7.50%.

The tables in this section provide background for the development of the single discount rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

SINGLE DISCOUNT RATE DEVELOPMENT
PROJECTION OF CONTRIBUTIONS

Year	Contributions from Current Employees	Normal Cost	Administrative Expense Contributions	UAL Contributions	Total Contributions
1	$ 3,642,313	$ 3,711,010	$ -	$ 1,451,666	$ 8,804,989
2	3,586,094	3,632,225	-	1,040,991	8,259,309
3	3,494,252	3,516,225	-	190,540	7,201,017
4	3,382,270	3,378,621	-	(421,101)	6,339,791
5	3,254,461	3,228,678	-	(486,757)	5,996,382
6	3,097,434	3,057,661	-	(503,793)	5,651,302
7	2,913,987	2,868,017	-	(521,426)	5,260,578
8	2,732,360	2,684,132	-	(539,676)	4,876,816
9	2,559,143	2,512,256	-	(558,565)	4,512,834
10	2,378,330	2,336,229	-	(578,115)	4,136,445
11	2,196,986	2,160,645	-	(598,349)	3,759,283
12	2,021,243	1,993,321	-	(619,291)	3,395,273
13	1,843,754	1,825,766	-	(640,966)	3,028,555
14	1,672,980	1,663,152	-	(663,400)	2,672,733
15	1,512,862	1,509,279	-	(686,619)	2,335,522
16	1,367,645	1,370,686	-	(710,650)	2,027,681
17	1,241,154	1,248,208	-	(735,523)	1,753,839
18	1,128,667	1,139,938	-	(761,266)	1,507,339
19	1,024,076	1,035,991	-	(787,911)	1,272,156
20	926,280	935,424	-	(815,488)	1,046,216
21	835,441	841,347	-	(841,347)	835,441
22	752,127	753,939	-	(753,939)	752,127
23	675,172	672,816	-	(672,816)	675,172
24	600,560	592,639	-	(592,639)	600,560
25	528,617	513,919	-	-	1,042,536
26	458,023	439,767	-	-	897,790
27	388,218	371,036	-	-	759,254
28	322,217	308,637	-	-	630,854
29	259,777	249,669	-	-	509,445
30	204,832	197,062	-	-	401,895
31	158,113	151,864	-	-	309,976
32	119,831	114,586	-	-	234,417
33	90,245	85,940	-	-	176,185
34	67,052	63,359	-	-	130,411
35	48,913	45,730	-	-	94,643
36	34,668	32,088	-	-	66,756
37	23,491	21,881	-	-	45,371
38	15,133	14,464	-	-	29,597
39	9,015	8,935	-	-	17,950
40	4,926	5,038	-	-	9,964
41	2,376	2,507	-	-	4,883
42	932	991	-	-	1,923
43	299	321	-	-	620
44	74	78	-	-	152
45	12	12	-	-	24
46	1	0	-	-	1
47	-	-	-	-	-
48	-	-	-	-	-
49	-	-	-	-	-
50	-	-	-	-	-

SINGLE DISCOUNT RATE DEVELOPMENT
PROJECTION OF PLAN FIDUCIARY NET POSITION

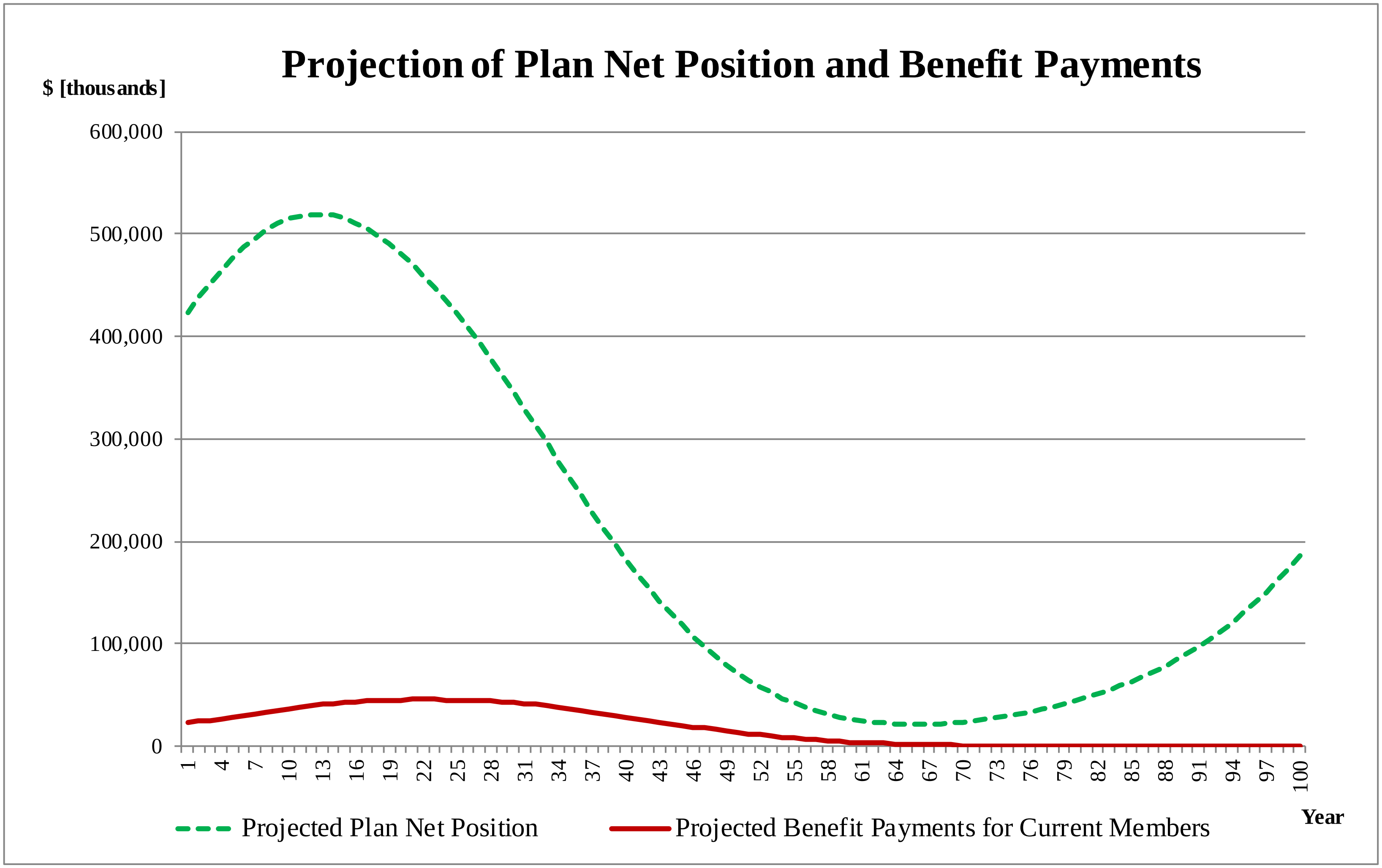
Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.50%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	$ 406,826,458	$ 8,804,989	$ 22,977,597	$ 528,874	$ 30,518,994	$ 422,643,970
2	422,643,970	8,259,309	24,198,396	549,437	31,660,825	437,816,271
3	437,816,271	7,201,017	25,413,985	569,161	32,734,742	451,768,884
4	451,768,884	6,339,791	26,732,550	587,300	33,719,062	464,507,887
5	464,507,887	5,996,382	28,331,801	603,860	34,619,515	476,188,123
6	476,188,123	5,651,302	30,061,938	619,045	35,434,304	486,592,746
7	486,592,746	5,260,578	31,684,531	632,571	36,154,042	495,690,264
8	495,690,264	4,876,816	33,227,014	644,397	36,777,254	503,472,922
9	503,472,922	4,512,834	34,806,520	654,515	37,299,508	509,824,229
10	509,824,229	4,136,445	36,427,744	662,771	37,710,556	514,580,715
11	514,580,715	3,759,283	37,894,365	668,955	38,005,584	517,782,262
12	517,782,262	3,395,273	39,304,166	673,117	38,184,547	519,384,798
13	519,384,798	3,028,555	40,602,809	675,200	38,245,498	519,380,843
14	519,380,843	2,672,733	41,747,687	675,195	38,189,938	517,820,631
15	517,820,631	2,335,522	42,732,778	673,167	38,022,204	514,772,412
16	514,772,412	2,027,681	43,483,002	669,204	37,750,664	510,398,551
17	510,398,551	1,753,839	44,065,871	663,518	37,385,393	504,808,394
18	504,808,394	1,507,339	44,558,289	656,251	36,931,655	498,032,849
19	498,032,849	1,272,156	44,949,164	647,443	36,391,629	490,100,027
20	490,100,027	1,046,216	45,221,998	637,130	35,767,988	481,055,103
21	481,055,103	835,441	45,371,388	625,372	35,064,599	470,958,382
22	470,958,382	752,127	45,406,003	612,246	34,289,877	459,982,137
23	459,982,137	675,172	45,388,036	597,977	33,450,217	448,121,513
24	448,121,513	600,560	45,276,323	582,558	32,546,617	435,409,809
25	435,409,809	1,042,536	45,065,038	566,033	31,600,769	422,422,044
26	422,422,044	897,790	44,767,595	549,149	30,615,425	408,618,516
27	408,618,516	759,254	44,365,018	531,204	29,571,938	394,053,486
28	394,053,486	630,854	43,874,654	512,270	28,473,955	378,771,372
29	378,771,372	509,445	43,241,827	492,403	27,326,761	362,873,349
30	362,873,349	401,895	42,464,616	471,735	26,138,400	346,477,292
31	346,477,292	309,976	41,535,319	450,420	24,918,215	329,719,744
32	329,719,744	234,417	40,448,939	428,636	23,676,835	312,753,421
33	312,753,421	176,185	39,243,292	406,579	22,424,554	295,704,289
34	295,704,289	130,411	37,933,689	384,416	21,170,242	278,686,838
35	278,686,838	94,643	36,533,877	362,293	19,922,038	261,807,350
36	261,807,350	66,756	35,057,850	340,350	18,687,456	245,163,362
37	245,163,362	45,371	33,517,836	318,712	17,473,439	228,845,624
38	228,845,624	29,597	31,928,291	297,499	16,286,345	212,935,776
39	212,935,776	17,950	30,300,107	276,817	15,131,948	197,508,750
40	197,508,750	9,964	28,646,594	256,761	14,015,458	182,630,818
41	182,630,818	4,883	26,980,803	237,420	12,941,422	168,358,900
42	168,358,900	1,923	25,315,414	218,867	11,913,689	154,740,232
43	154,740,232	620	23,664,476	201,162	10,935,328	141,810,541
44	141,810,541	152	22,039,970	184,354	10,008,593	129,594,962
45	129,594,962	24	20,452,025	168,473	9,135,011	118,109,498
46	118,109,498	1	18,909,425	153,542	8,315,471	107,362,003
47	107,362,003	-	17,419,755	139,571	7,550,289	97,352,966
48	97,352,966	-	15,989,193	126,559	6,839,276	88,076,490
49	88,076,490	-	14,622,581	114,499	6,181,803	79,521,213
50	79,521,213	-	13,323,681	103,378	5,576,863	71,671,017

SINGLE DISCOUNT RATE DEVELOPMENT
PRESENT VALUES OF PROJECTED BENEFIT PAYMENTS

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+sdr)^(a-.5)
1	$ 406,826,458	$ 22,977,597	$ 22,977,597	$ -	$ 22,161,562	$ -	$ 22,161,562
2	422,643,970	24,198,396	24,198,396	-	21,710,703	-	21,710,703
3	437,816,271	25,413,985	25,413,985	-	21,210,534	-	21,210,534
4	451,768,884	26,732,550	26,732,550	-	20,754,428	-	20,754,428
5	464,507,887	28,331,801	28,331,801	-	20,461,436	-	20,461,436
6	476,188,123	30,061,938	30,061,938	-	20,196,235	-	20,196,235
7	486,592,746	31,684,531	31,684,531	-	19,801,235	-	19,801,235
8	495,690,264	33,227,014	33,227,014	-	19,316,473	-	19,316,473
9	503,472,922	34,806,520	34,806,520	-	18,822,992	-	18,822,992
10	509,824,229	36,427,744	36,427,744	-	18,325,333	-	18,325,333
11	514,580,715	37,894,365	37,894,365	-	17,733,145	-	17,733,145
12	517,782,262	39,304,166	39,304,166	-	17,109,655	-	17,109,655
13	519,384,798	40,602,809	40,602,809	-	16,441,835	-	16,441,835
14	519,380,843	41,747,687	41,747,687	-	15,725,996	-	15,725,996
15	517,820,631	42,732,778	42,732,778	-	14,974,020	-	14,974,020
16	514,772,412	43,483,002	43,483,002	-	14,173,866	-	14,173,866
17	510,398,551	44,065,871	44,065,871	-	13,361,730	-	13,361,730
18	504,808,394	44,558,289	44,558,289	-	12,568,411	-	12,568,411
19	498,032,849	44,949,164	44,949,164	-	11,794,106	-	11,794,106
20	490,100,027	45,221,998	45,221,998	-	11,037,855	-	11,037,855
21	481,055,103	45,371,388	45,371,388	-	10,301,692	-	10,301,692
22	470,958,382	45,406,003	45,406,003	-	9,590,280	-	9,590,280
23	459,982,137	45,388,036	45,388,036	-	8,917,661	-	8,917,661
24	448,121,513	45,276,323	45,276,323	-	8,275,081	-	8,275,081
25	435,409,809	45,065,038	45,065,038	-	7,661,827	-	7,661,827
26	422,422,044	44,767,595	44,767,595	-	7,080,239	-	7,080,239
27	408,618,516	44,365,018	44,365,018	-	6,527,041	-	6,527,041
28	394,053,486	43,874,654	43,874,654	-	6,004,557	-	6,004,557
29	378,771,372	43,241,827	43,241,827	-	5,505,069	-	5,505,069
30	362,873,349	42,464,616	42,464,616	-	5,028,952	-	5,028,952
31	346,477,292	41,535,319	41,535,319	-	4,575,719	-	4,575,719
32	329,719,744	40,448,939	40,448,939	-	4,145,152	-	4,145,152
33	312,753,421	39,243,292	39,243,292	-	3,741,023	-	3,741,023
34	295,704,289	37,933,689	37,933,689	-	3,363,888	-	3,363,888
35	278,686,838	36,533,877	36,533,877	-	3,013,726	-	3,013,726
36	261,807,350	35,057,850	35,057,850	-	2,690,201	-	2,690,201
37	245,163,362	33,517,836	33,517,836	-	2,392,583	-	2,392,583
38	228,845,624	31,928,291	31,928,291	-	2,120,109	-	2,120,109
39	212,935,776	30,300,107	30,300,107	-	1,871,623	-	1,871,623
40	197,508,750	28,646,594	28,646,594	-	1,646,033	-	1,646,033
41	182,630,818	26,980,803	26,980,803	-	1,442,155	-	1,442,155
42	168,358,900	25,315,414	25,315,414	-	1,258,733	-	1,258,733
43	154,740,232	23,664,476	23,664,476	-	1,094,554	-	1,094,554
44	141,810,541	22,039,970	22,039,970	-	948,294	-	948,294
45	129,594,962	20,452,025	20,452,025	-	818,577	-	818,577
46	118,109,498	18,909,425	18,909,425	-	704,033	-	704,033
47	107,362,003	17,419,755	17,419,755	-	603,321	-	603,321
48	97,352,966	15,989,193	15,989,193	-	515,139	-	515,139
49	88,076,490	14,622,581	14,622,581	-	438,242	-	438,242
50	79,521,213	13,323,681	13,323,681	-	371,454	-	371,454

SINGLE DISCOUNT RATE DEVELOPMENT
PRESENT VALUES OF PROJECTED BENEFIT PAYMENTS (CONCLUDED)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+sdr)^(a-.5)
51	$ 71,671,017	$ 12,095,069	$ 12,095,069	$ -	$ 313,676	$ -	$ 313,676
52	64,505,908	10,938,071	10,938,071	-	263,879	-	263,879
53	58,003,019	9,853,136	9,853,136	-	221,121	-	221,121
54	52,137,296	8,840,090	8,840,090	-	184,546	-	184,546
55	46,881,993	7,898,056	7,898,056	-	153,377	-	153,377
56	42,209,264	7,025,600	7,025,600	-	126,915	-	126,915
57	38,090,661	6,220,985	6,220,985	-	104,540	-	104,540
58	34,497,406	5,482,248	5,482,248	-	85,698	-	85,698
59	31,400,596	4,807,220	4,807,220	-	69,903	-	69,903
60	28,771,409	4,193,520	4,193,520	-	56,725	-	56,725
61	26,581,331	3,638,502	3,638,502	-	45,784	-	45,784
62	24,802,451	3,139,305	3,139,305	-	36,746	-	36,746
63	23,407,734	2,692,910	2,692,910	-	29,322	-	29,322
64	22,371,246	2,296,066	2,296,066	-	23,257	-	23,257
65	21,668,477	1,945,255	1,945,255	-	18,329	-	18,329
66	21,276,730	1,636,829	1,636,829	-	14,347	-	14,347
67	21,175,384	1,367,196	1,367,196	-	11,147	-	11,147
68	21,345,999	1,132,929	1,132,929	-	8,593	-	8,593
69	21,772,303	930,722	930,722	-	6,567	-	6,567
70	22,440,232	757,377	757,377	-	4,971	-	4,971
71	23,337,984	609,887	609,887	-	3,724	-	3,724
72	24,455,989	485,474	485,474	-	2,757	-	2,757
73	25,786,837	381,552	381,552	-	2,016	-	2,016
74	27,325,249	295,714	295,714	-	1,453	-	1,453
75	29,068,040	225,737	225,737	-	1,032	-	1,032
76	31,014,094	169,524	169,524	-	721	-	721
77	33,164,385	125,086	125,086	-	495	-	495
78	35,522,022	90,559	90,559	-	333	-	333
79	38,092,281	64,228	64,228	-	220	-	220
80	40,882,609	44,555	44,555	-	142	-	142
81	43,902,609	30,186	30,186	-	89	-	89
82	47,164,007	19,946	19,946	-	55	-	55
83	50,680,627	12,841	12,841	-	33	-	33
84	54,468,361	8,048	8,048	-	19	-	19
85	58,545,143	4,911	4,911	-	11	-	11
86	62,930,937	2,918	2,918	-	6	-	6
87	67,647,732	1,688	1,688	-	3	-	3
88	72,719,562	947	947	-	2	-	2
89	78,172,548	512	512	-	1	-	1
90	84,034,958	262	262	-	0	-	0
91	90,337,308	125	125	-	0	-	0
92	97,112,477	53	53	-	0	-	0
93	104,395,857	20	20	-	0	-	0
94	112,225,526	6	6	-	0	-	0
95	120,642,434	1	1	-	0	-	0
96	129,690,615	0	0	-	0	-	0
97	139,417,411	-	-	-	-	-	-
98	149,873,717	-	-	-	-	-	-
99	161,114,246	-	-	-	-	-	-
100	173,197,814	-	-	-	-	-	-
				Totals	$ 462,121,062	$ -	$ 462,121,062


Projection of Plan Net Position and Benefit Payments
$ [thousands]
600,000
500,000
400,000
300,000
200,000
100,000
0
1
4
7
10
13
16
19
22
25
28
31
34
37
40
43
46
49
52
55
58
61
64
67
70
73
76
79
82
85
88
91
94
97
100
Year
Projected Plan Net Position
Projected Benefit Payments for Current Members

SECTION H

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

GLOSSARY OF TERMS

Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll	The payroll of covered employees, which is typically only the pensionable pay and does not include pay above any pay cap.
Deferred Retirement Option Program (DROP)	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.
Deferred Inflows and Outflows	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: 1. The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period and; 2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

GLOSSARY OF TERMS

Entry Age Actuarial Cost Method (EAN)	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Fiduciary Net Position	The fiduciary net position is the value of the assets of the trust.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
Money-Weighted Rate of Return	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
Multiple-Employer Defined Benefit Pension Plan	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Municipal Bond Rate	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
Net Pension Liability (NPL)	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
Non-employer Contribution Entities	Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting statement plan members are not considered non-employer contribution entities.
Normal Cost	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.

GLOSSARY OF TERMS

Other Postemployment Benefits (OPEB) All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.

Real Rate of Return The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.

Service Cost The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

Total Pension Expense The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

1. Service Cost
2. Interest on the Total Pension Liability
3. Current-Period Benefit Changes
4. Employee Contributions (made negative for addition here)
5. Projected Earnings on Plan Investments (made negative for addition here)
6. Pension Plan Administrative Expense
7. Other Changes in Plan Fiduciary Net Position
8. Recognition of Outflow (Inflow) of Resources due to Liabilities
9. Recognition of Outflow (Inflow) of Resources due to Assets

Total Pension Liability (TPL) The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL) The UAAL is the difference between actuarial accrued liability and valuation assets.

Valuation Assets The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 67, the valuation asset is equal to the market value of assets.

GRS

Gabriel Roeder Smith & Company
Consultants & Actuaries

One Towne Square
Suite 800
Southfield, MI 48076-3723

248.799.9000 phone
248.799.9020 fax
www.gabrielroeder.com

April 2, 2015

Ms. Peggy Korzen, Executive Director
City of Grand Rapids Police and Fire
Retirement System
233 East Fulton, Suite 216
Grand Rapids, Michigan 49503

Dear Peggy:

Please find enclosed copies of the GASB Statement No. 67 Plan Reporting Accounting Schedules report of the Grand Rapids Police and Fire Retirement System.

We will be happy to meet with the Board to discuss the results of this report.

Sincerely,

David L. Hoffman

David L. Hoffman

DLH:mrb

cc: BDD USA, LLP (+1 report copy)
Attention: Ms. Pam Slaugh