

**CITY OF EVANSTON POLICE PENSION FUND**  
**ANNUAL ACTUARIAL VALUATION**  
**FOR THE YEAR BEGINNING**  
**MARCH 1, 2009**

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June 24, 2009

Mr. Martin Lyons  
Finance Director  
City of Evanston  
2100 Ridge Avenue  
Evanston, IL 60201

Dear Mr. Lyons:

We are pleased to provide our formal annual Actuarial Valuation Report as of March 1, 2009, covering the City of Evanston Police Pension Fund. This report provides, among other things, the minimum annual contribution requirements of the Plan for the Plan Year commencing March 1, 2009, and ending on February 28, 2010 (which directly affects the Village's tax levy in the 2011 fiscal year that is collected and deposited into the Pension Trust in fiscal year 2012). This valuation was based on the plan provisions as outlined in Section B of this report, the Plan participant data as provided by the City of Evanston (i.e., Plan Sponsor), and on the actuarial cost method and the set of actuarial assumptions as described in Section C of the report.

Chapter 40, Act 5, Article 3 of the Illinois Compiled Statutes requires an actuarial balance sheet (i.e., actuarial valuation) be prepared by a qualified actuary in order to determine the annual tax levy to meet the annual actuarial requirements of the Pension Fund. Alex Rivera and Amy Williams of Gabriel, Roeder, Smith & Company have the following qualifications:

**Alex Rivera** is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries, and an Enrolled Actuary with over 20 years of responsible experience in the actuarial and pension consulting field.

**Amy Williams** is an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries, with six years of responsible experience in the actuarial and pension consulting field.

It is our understanding, in accordance with the Illinois Compiled Statutes, that at least one of the undersigned more than satisfies the minimum requirements as set forth in the referenced Pension Code as recently amended.

In addition, it is also our understanding that the Pension Code requires that a member of the American Academy of Actuaries perform the required annual actuarial valuation and does not mandate that the Illinois Department of Insurance's annual actuarial valuation of the Pension Fund be controlling or that the Department of Insurance accept or approve another actuarial valuation of the Pension Fund.

Both of the undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries (MAAA) to render the actuarial opinion contained herein.

We will be pleased to review this report with you at your convenience.

Sincerely,



Alex Rivera, F.S.A., E.A., M.A.A.A.  
Senior Consultant



Amy Williams, A.S.A., M.A.A.A.  
Consultant

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**SECTION A**

VALUATION RESULTS

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## SUMMARY OF ACTUARIAL VALUATION RESULTS

		Prior Year Results	Current Year Results	
<i>Employee Data</i>	Number of Active Police Officers	161	160	
	Number of Service Retirees	119	124	
	Number of Disabled Lives	16	16	
	Number of Widow Beneficiaries	25	24	
	Number of QDROs	1	1	
	Number of Children Beneficiaries	0	0	
	Number of Separated Deferred Police Officers	3	3	
	Number of Handicapped Beneficiaries	1	1	
	<b>TOTAL</b>	<b>326</b>	<b>329</b>	
	Total Expected Salaries of Police Officers	\$ 12,142,463	\$ 12,632,549	
<i>Plan Liabilities</i>	Gross Annual Normal Cost	\$ 2,991,527	\$ 3,131,514	
	Less Expected Member Contributions <sup>1</sup> (for Applicable Plan Year)	1,161,935	1,208,832	
	Net Annual Normal Cost (Municipality Paid)	\$ 1,829,592	\$ 1,922,682	
	Net Annual Normal Cost (As a percentage of pay) <sup>2</sup>	15.1 %	15.2 %	
	Gross Actuarial Accrued Liability:			
	Active Police Officers	\$ 50,708,347	\$ 51,896,509	
	Retirees, Beneficiaries & Disabled	94,750,598	103,074,801	
	<b>TOTAL</b>	<b>\$145,458,945</b>	<b>\$154,971,310</b>	
		Actuarial Value of Assets at Valuation Date	\$ 64,355,651	\$ 66,514,296
		Unfunded (Overfunded) Actuarial Accrued Liability	\$ 81,103,294	\$ 88,457,014
	<b>Funded Position of Plan's Gross Actuarial Accrued Liability<sup>3</sup></b>	44.2 %	42.9 %	
	<b>Net Minimum Annual Contribution Requirement at Fiscal Year End</b>	\$ 7,081,620	\$ 7,787,369	

<sup>1</sup> Expected member contributions shown are based on expected payroll for the year and are discounted to beginning of year.

<sup>2</sup> Percents above represent annual plan contributions expressed as percentages of expected payroll of Police Officers.

<sup>3</sup> Equals the ratio of the actuarial value of assets to the total gross actuarial accrued liability.

**SUMMARY OF ACTUARIAL VALUATION RESULTS  
(CONTINUED)**

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		<u>Prior Year Results</u>	<u>Current Year Results</u>
<b><i>Minimum Annual Contribution Requirements</i></b>	Net Annual Normal Cost (Municipality Paid) <sup>1</sup>	\$1,829,592	\$1,922,682
	Annual Amortization Payments for Funding Unfunded Actuarial Accrued Liability Over 40 Years from July 1, 1993 as a level percentage of payroll <sup>1</sup>	4,773,317	5,338,268
	Interest Adjustment to End of Year	<u>478,711</u>	<u>526,419</u>
	Total Minimum Annual Contribution Requirement for the Current Plan Year	<u><u>\$7,081,620</u></u>	<u><u>\$7,787,369</u></u>
	Minimum Annual Contribution (As a percentage of expected pay)	58.3%	61.6%

<sup>1</sup> Amounts shown are at the beginning of the year.

**DERIVATION OF EXPERIENCE GAIN (LOSS)  
YEAR ENDED MARCH 1, 2009**

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Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is hoped that gains and losses will cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the experience gain (loss) is shown below, along with a year-by-year comparative schedule.

1. Unfunded Actuarial Accrued Liability at 03/01/2008	\$	81,103,294
2. Normal Cost Due at 03/01/2008		2,991,527
3. Interest on (1) and (2) to 03/01/2009 (at 7.25% per annum)		6,096,875
4. Contributions (Employer and Employee) applicable to the Plan Year Ending 02/28/2009, with interest to 02/28/2009		9,283,838
5. Expected Unfunded Actuarial Accrued Liability at 03/01/2009 [(1) + (2) + (3) - (4)]	\$	80,907,858
6. Actual Unfunded Actuarial Accrued Liability at 03/01/2009		88,457,014
7. Experience Gain (Loss) for the Plan Year Ending 02/28/2009 [(5) - (6)]	\$	(7,549,156)



## COMMENTS AND ANALYSIS

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The valuation results pertaining to the current Plan Year are analyzed and discussed in the following paragraphs.

### *Plan History*

The following table provides a summary of the Plan's rate of return on the market value of assets and salary increase experience over the last three actuarial valuations performed by Gabriel, Roeder, Smith & Company.

<b>Plan Year Ending</b>	<b>Rate of Return On Plan Assets</b>	<b>Salary Increases</b>
02/28/2007	7.5%	6.6%
02/29/2008	3.2%	6.7%
02/28/2009	-15.2%	6.8%

The salary increase has averaged 6.7% over the last three years. Because the average increase has been consistently higher than the assumption of 5.0%, we believe it would be appropriate to review this assumption for the next valuation.

The Plan's market value of assets earned an average annual rate of investment return of -2.0% over the last three plan years. The investment return assumption depends on the Plan's investment policy including the asset allocation, risk/return profile of the individual asset classes, inflation assumption, and liquidity requirements. These elements should be reviewed annually to ensure that a nominal investment return assumption of 7.25%, net of expenses, can be supported in the future.

**COMMENTS AND ANALYSIS  
(CONTINUED)**

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***Analysis of the Experience Gain (Loss)***      The experience gain(loss) reported on page A-3, is the net result of the following:

(a) From plan asset performance	\$ (4,305,463)
(b) Other sources ("net effect" of salary increases, terminations, new entrants, retirements)	<u>(3,243,693)</u>

Total Gain/(Loss): [(a) + (b)]	\$ (7,549,156)
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***Changes in the Annual Contribution Magnitude***

The dollar amount for the plan's annual minimum required contribution is approximately 10.0% higher than the level for the prior plan year. As a percentage of payroll, the contribution requirement is higher than last year (i.e., increasing from 58.3% to 61.6%). The important factors producing this change are summarized as follows:

1. Minimum Annual Contribution Requirement for prior plan year	\$7,081,620
2. Actual asset performance (based on actuarial value of assets)	278,667
3. Increase due to expected growth <sup>1</sup>	185,977
4. Other (including demographic sources)	241,105
5. Minimum Annual Contribution Requirement for current plan year (sum of items 1 through 5)	<u><u>\$7,787,369</u></u>

<sup>1</sup> Includes an amortization component of the expected growth in the unfunded liability if actual experience during FY 2009 matched the assumed experience and an increased normal cost component due to wage inflation.

## COMMENTS AND ANALYSIS (CONTINUED)

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***Comments on Actuarial Value of Assets*** Government accounting standards mandate the use of market value of assets or market-related value of assets for accounting purposes. The Pension Fund previously used market value of assets for both government accounting and funding purposes. This market-related value of assets will recognize gains and losses due to return on plan assets over a four-year period. Hence, only a portion of this year's investment loss (see Section B for details) is included in the current year actuarial value of assets. The remainder of the gain or loss will be incorporated into Pension Fund assets over the next three years. The purpose of this technique is to minimize contribution volatility due to fluctuations in the market value of assets.

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***GASB Statements No. 25 and 27*** GASB Statement No. 25 is applicable to fiscal years beginning after June 15, 1996. It was adopted by the City of Evanston Police Pension Fund in the March 1997 report. GASB Statement 27 is applicable to fiscal years beginning after June 15, 1997. It was adopted by the City of Evanston Police Pension Fund in the March 1998 report. A transition pension liability (asset) has been developed under Statement No. 27 equal to the cumulative difference between the actuarially determined funding requirement and the actual amount contributed for fiscal years 1987 to the date GASB 27 is adopted. As of the adoption date, all outstanding pension liabilities (assets) are adjusted to equal the transition NPO. GASB 25 and 27 information prior to fiscal years before March 1, 2007, was developed by the prior actuary. Section D of this report provides further details and explanations on these regulations.

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**SECTION B**

**BENEFIT PROVISIONS AND VALUATION DATA**

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## BRIEF SUMMARY OF PLAN PROVISIONS (MARCH 1, 2009 )

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***Plan*** Police Pension Fund as Incorporated in Chapter 40, Act 5, Article 3 of the Illinois Compiled Statutes

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***Effective Date*** Enacted: July 25, 1963

Last Amended Effective: February 17, 2009

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***Eligibility to Participate*** Generally, any person who is in the Police Department of a city, village or incorporated town (whose population is 500,000 or less) which has adopted the provisions of Chapter 40, Act 5, Article 3 of the Illinois Compiled Statutes concerning Police Officers' pensions, is eligible to participate, subject to the following:

- (a) The person has been appointed to the Police force of a Police Department and sworn and commissioned to perform Police duties; and
- (b) Within three months after receiving his/her first appointment (or within three months after any re-appointment) the person makes written application to the Board to be covered under the provisions of the Article; and
- (c) The person is found to be physically and mentally fit to perform the duties of a Police Officer.

Notwithstanding, the following persons are not considered eligible for participation in this Fund: part-time Police Officers, special Police Officers, night watchmen, temporary employees, traffic guards, or auxiliary Police Officers (specially appointed to aid or direct traffic at or near schools or public functions, or to aid in civil defense), municipal parking lot attendants, clerks or other civilian employees of a Police Department who perform clerical duties exclusively.

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## BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

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***Employee  
Contributions  
(Mandatory)***

In order to participate in the plan, each Police Officer must contribute 9.910% of his/her regular salary. "Salary" in this instance means annual salary and includes longevity pay attached to the Police Officer's rank but excludes overtime pay, holiday pay, bonus pay, merit pay or any other cash benefit over and above the salary established by the appropriation ordinance.

***Creditable Service***

"Creditable Service" is the time period during which a person serves as a Police Officer of a regularly constituted Police force of a municipality. Furloughs without pay exceeding 30 days in any one year shall not be counted, but all leaves of absence for illness or accident, regardless of length, shall be counted. Also, time attributable to disability for which the Police Officer does not receive disability pension benefits under this Article shall be counted as "Creditable Service."

In addition, creditable service includes all periods of service in the Military, Naval or Air Forces of the United States of America, entered into when the person was an active Police Officer, provided that the Police Officer contributes to the Fund the amount that he/she would have paid had he/she been a regular contributor during such Military service. Not more than five years may be counted under this provision.

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***Eligibility For and  
Amount of Regular  
Retirement Benefits***

***I. Age 50 (or  
More) and 20  
or More Years  
of Creditable  
Service***

Benefit: A Police Officer who is age 50 (or more) and has 20 years (or more) of Creditable Service and is no longer in service as a Police Officer is entitled to a pension payable for life equal to 50% of his/her salary attached to the rank held by the Officer one year immediately prior to retirement.

## BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

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Effective July 1, 1987, for persons terminating service on or after that date, the applicable salary will be the greater of: (1) the salary attached to the rank held on the last day of service; or (2) the salary one year prior to the last day of service.

For Creditable Service over 20 years, the pension is increased as follows:

- 2.5% of the Police Officer's salary for each additional year over 20 years of Creditable Service, up to 30 years, subject to the maximum of 75% of his/her salary.

Notwithstanding the above, no Pension in effect or granted for a Police Officer with 20 or more years of service after January 1999 is to be less than \$600.00 per month. This increases to \$800.00 per month on January 1, 2000, and \$1,000.00 per month on January 1, 2001.

***II. Eligibility—  
Age 60 (or  
More) and 8  
(but Less than  
20) Years of  
Creditable  
Service***

**Benefit:** A Police Officer who retires or is separated from service having at least 8 years (but less than 20) of Creditable Service and who does not apply for a refund of contributions at separation from service, is entitled to a monthly pension upon attaining age 60, payable for life, equal to years of Creditable Service multiplied by 2-1/2% of the salary attached to the rank he/she held in the Police force one year prior to retirement. Effective July 1, 1987, for persons terminating service on or after that date, the applicable salary will be the greater of: (1) the salary attached to the rank held on the last day of service; or (2) the salary one year prior to the last day of service.

## BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

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A Police Officer who is mandatorily retired from service by reason of age through an operation of law, and has accumulated at least 8 years (but less than 20 years) of Creditable Service, is entitled to a pension payable for life equal to years of Creditable Service multiplied by 2-1/2% of the salary attached to the rank he/she held on the Police force one year immediately prior to retirement. Effective July 1, 1987, for persons terminating service on or after that date, the applicable salary will be the greater of: (1) the salary attached to the rank held on the last day of service; or (2) the salary one year prior to the last day of service.

### ***III. Pension Allowance Increases***

- A Police Officer who retired from service with 20 or more years of Creditable Service on or before July 1, 1971 is entitled to an increase of 3% of his/her original monthly pension for each year the Police Officer was in receipt of pension payments; such increase takes effect in the January of the year following the year in which he/she attains age 65, or January of 1972, if then age 65. Each subsequent January thereafter, the monthly pension is increased by 3% of the original monthly pension amount.
  
- A Police Officer who retired from service after July 1, 1971 and prior to January 1, 1986 is entitled to an increase of 3% of his/her original monthly pension either upon: (a) the first of the month following the first anniversary of his/her date of retirement if he/she was age 60 or more on the retirement date, or (b) the first of the month following the Police Officer's attainment of age 60 (if such occurs after the first anniversary of his/her retirement date). Each subsequent January thereafter, the monthly pension is increased by 3% of the original monthly pension amount.



## BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

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- A Police Officer who retired from service on or after January 1, 1986 is entitled to an increase of 3% of his/her original monthly pension for each full year that has elapsed since the pension began. This occurs either upon: (a) the first of the month following the anniversary of his/her date of retirement if he/she was age 55 or older on the retirement date, or (b) the first of the month following the Police Officer's attainment of age 55 (if such occurs after the first anniversary of his/her retirement date). Each subsequent January thereafter, the monthly pension is increased by 3% of the original monthly pension amount.
  
  - Notwithstanding the provisions of the second paragraph listed above, a Police Officer who retired from service after January 1, 1977 and prior to January 1, 1986 and did not receive a pension increase before July 1, 1987, is entitled to a 3% increase of his/her original monthly pension for each full year that has elapsed since the pension began. This occurs on the first day of the month following the later of either: (a) the first anniversary of the date of retirement, or (b) the attainment of age 55, or (c) July 1, 1987. Each subsequent January thereafter, the monthly pension is increased by 3% of the original pension amount.
  
  - Notwithstanding the provisions of the previous paragraphs, beginning with increases granted on or after July 1, 1993, the second and all subsequent automatic annual increases under these provisions shall be calculated as 3% of the amount of pension payable at the time of the increase, including any increases previously granted under the prior provisions, rather than 3% of the originally granted pension amount.
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## BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

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### *Eligibility For and Amount of Disability Benefits*

- I. Disability Incurred in the Line of Duty** If a Police Officer is injured or suffers an accident or sickness as the result of carrying out his/her duties as a Police Officer (even if those duties take him/her to a place away from the municipality in which he/she serves as a Police Officer, and assuming such duties are related to the Police protection service of such municipality), then such a disabled Police Officer is entitled to a disability retirement pension equal to the maximum of: (a) 65% of the monthly salary attached to the rank held by the officer in the Police Department at the date of suspension of duty or retirement, or (b) his/her accrued benefit.
- II. Disability on Account of Occupational Hazards** If a Police Officer suffers a heart attack as a result of the performance and discharge of duties as a Police Officer, then he/she is eligible for any benefits provided under this Article for Police Officers who are injured in the performance of an act of duty.
- III. Disability Due to Occurrences Unrelated to Duties** If a Police Officer becomes mentally or physically disabled as the result of any cause other than the performance of an act of duty, he/she is entitled to a disability pension equal to 50% of the salary attached to the rank held by the officer in the Police Department at the date of suspension of duty or retirement.
- Notwithstanding the provisions of I, II and III above, no disability pension in effect or granted after January 1, 1987 is to be less than \$600.00 per month. This increases to \$800.00 per month on January 1, 2000 and \$1,000.00 per month on January 1, 2001.
- IV. Special Disability Pension Option** A Police Officer, age 50 or more, who is receiving a disability pension and who has completed 20 years of service may apply for a retirement pension equal to 1/2 of the salary attached to his/her rank on the Police force at the date of his/her retirement for disability. In computing years of service for this benefit option, the period during which the Police Officer received a disability pension should be added to his/her period of active service.
- V. Disability Pension Allowance Increase** A Police Officer who is receiving a disability pension is entitled to receive an automatic increase upon the attainment of age 60. At this date, the monthly pension is increased by 3% of the original monthly pension for each year the Police Officer was in receipt of monthly pension payments. Each subsequent January thereafter, the monthly pension is again increased by 3% of the original monthly pension amount.

## BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

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### *Death Benefits to Surviving Spouse or Dependents*

- I. *Death in Line of Duty*** If a Police Officer dies while in the line of duty as a result of any injuries or if a Police Officer sustains injuries from which he/she thereafter dies, then the surviving spouse is entitled to a pension equal to 100% of the salary attached to the rank the Police Officer held for one year immediately prior to his/her death. This benefit is payable to the survivors in the sequence noted in Section VI — Rights on Death of a Pensioner.
- II. *Death in Service With 10 or More but Less than 20 Years of Creditable Service*** If a Police Officer dies while in service after having at least 10 but less than 20 years of Creditable Service, then his/her surviving spouse is entitled to a pension equal to 50% of the salary attached to the rank held by the Police Officer for one year immediately prior to his/her death. Such benefit is payable to the survivors in the sequence noted in Section VI — Rights on Death of a Pensioner.
- III. *Death in Service With 20 or More Years of Creditable Service*** If a Police Officer dies while in service after having at least 20 years of Creditable Service (regardless of age), then the surviving spouse is entitled to a pension earned by the Police Officer as of the date of death. Such benefit is payable to the survivors in the sequence noted in Section VI — Rights on Death of a Pensioner.
- IV. *Death While on Disability*** If a Police Officer who is receiving a disability pension dies while still disabled, his/her disability pension shall continue to be paid to the surviving spouse or dependents in the sequence noted in Section VI — Rights on Death of a Pensioner.

Notwithstanding the provisions of I, II, III or IV above, effective January 1, 1999, the minimum death benefit payable to the surviving spouse or dependents is \$400.00 per month. This increases to \$800.00 per month on January 1, 2000 and \$1,000 per month on January 1, 2001.

## BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

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**V. *Less than 10 Years of Creditable Service***      If a Police Officer dies before he/she has 10 years of Creditable Service, all contributions made by the Officer shall be refunded to the surviving spouses without interest.

**VI. *Rights on Death of a Pensioner***      If a Police Officer who was receiving or was entitled to receive a monthly pension dies, the surviving spouse is entitled to the pension to which the Police Officer was then entitled. Upon the surviving spouse's death or re-marriage, the Police Officer's unmarried children (under age 18) or unmarried children who are dependent because of a physical or mental disability are entitled to equal shares of the pension. If there is no eligible surviving spouse and no eligible children, the dependent parent or parents of the Police Officer are entitled to receive or share such pension until their death, or marriage, or remarriage.

**Special Note:** If a Police Officer marries subsequent to retirement on any pension, the surviving spouse and the children of such surviving spouse shall receive no pension on the death of the Officer.

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***Termination of Employment Benefits***

***Refund of Employee Contributions***      A Police Officer who has less than 20 Years of Service and who resigns or is discharged (and has not received any disability payments) is entitled to a refund of his/her total amount contributed to the Police Pension Fund during his/her period of service. If the Police Officer should be subsequently re-employed, he/she must repay to the fund the amount of refund which was received, plus interest at 2% per annum from the date of refund to the date of repayment, before commencing service. When repayment is made, the Police Officer will receive credit for the previous years of service for which the refund was received.

## BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

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***Financing of Pension Benefits*** Pension benefits are to be funded by "employee" deductions from wages and salaries of Police Officers and by a property tax levied by the Municipality. The amount derived from these two sources should equal the sum sufficient to meet the annual actuarial requirements of the pension fund as stated below:

- (1) Provide a reserve for the pensions and benefits earned by the Police Officers and all beneficiaries — provided that the reserve to be accumulated shall not exceed the estimated total actuarial requirements of the fund,

and

- (2) In a municipality that has a reserve less than the actuarial requirements of the fund, the Board of the Pension Fund shall designate the proportionate amount needed annually to insure the accumulation of such actuarial reserve over a period of 40 years subsequent to July 1, 1993, in the case of pension funds in operation on that date.

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***Administration*** The Police Pension Fund is administered by a Board of Trustees located in each municipality maintaining a Pension Fund for its Police Officers. Its duties are: to control and manage the pension fund, to enforce the collection of the contributions, to hear and determine applications for pensions, to authorize payment of pensions to establish rules, to pay expenses, to invest funds, and to keep records.

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**ACTIVE MEMBERS AS OF MARCH 1, 2009  
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date									Totals	Total Valuation Payroll
	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 35		
<b>Under 20</b>										<b>0</b>	<b>\$ 0</b>
20-24	3	6								9	528,253
25-29	5	16	9							30	1,972,907
30-34	1	16	15							32	2,222,650
35-39	1	4	11	7						23	1,698,501
40-44		1	7	5	10					23	1,897,923
45-49				1	8	7				16	1,302,189
50-54		1	1	2	2	6	2			14	1,282,220
55-59				1	2	3	2	3		11	969,370
60-64							2			2	156,986
65-69										0	0
<b>Over 70</b>										<b>0</b>	<b>0</b>
<b>Total</b>	<b>10</b>	<b>44</b>	<b>43</b>	<b>16</b>	<b>22</b>	<b>16</b>	<b>6</b>	<b>3</b>		<b>160</b>	<b>\$ 12,030,999</b> <sup>1</sup>

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

Age: 38.5 years  
Service: 10.5 years  
Annual Pay: \$75,194

<sup>1</sup> This is actual pay provided as of February 28, 2009. The expected salary reported on page A-1 of this report includes adjustments for expected pay increases.

## DEVELOPMENT OF ACTUARIAL (MARKET-RELATED) VALUE OF ASSETS

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<b>Expected Return on Market Value of Assets for Prior Year</b>	1. Market value of assets at 03/01/2008 <sup>1</sup>	\$ 62,525,333																												
	2. Actual income and disbursements in prior year weighted for timing:																													
	<table style="width: 100%; border-collapse: collapse; margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Item</th> <th style="text-align: right; border-bottom: 1px solid black;">Amount</th> <th style="text-align: right; border-bottom: 1px solid black;">Weight for Timing</th> <th style="text-align: right; border-bottom: 1px solid black;">Weighted Amount</th> </tr> </thead> <tbody> <tr> <td>(a) Member Contributions</td> <td style="text-align: right;">\$ 1,125,813</td> <td style="text-align: right;">50.00%</td> <td style="text-align: right;">\$ 562,907</td> </tr> <tr> <td>(b) City Contributions</td> <td style="text-align: right;">5,124,200</td> <td style="text-align: right;">50.00%</td> <td style="text-align: right;">2,562,100</td> </tr> <tr> <td>(c) Miscellaneous Revenue</td> <td style="text-align: right;">2,714,545</td> <td style="text-align: right;">50.00%</td> <td style="text-align: right;">1,357,273</td> </tr> <tr> <td>(d) Benefit Payments</td> <td style="text-align: right;">(7,228,081)</td> <td style="text-align: right;">50.00%</td> <td style="text-align: right;">(3,614,041)</td> </tr> <tr> <td>(e) Administration</td> <td style="text-align: right;">(25,938)</td> <td style="text-align: right;">50.00%</td> <td style="text-align: right;">(12,969)</td> </tr> <tr> <td>(f) Total</td> <td></td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$855,270</td> </tr> </tbody> </table>	Item	Amount	Weight for Timing	Weighted Amount	(a) Member Contributions	\$ 1,125,813	50.00%	\$ 562,907	(b) City Contributions	5,124,200	50.00%	2,562,100	(c) Miscellaneous Revenue	2,714,545	50.00%	1,357,273	(d) Benefit Payments	(7,228,081)	50.00%	(3,614,041)	(e) Administration	(25,938)	50.00%	(12,969)	(f) Total			\$855,270	
Item	Amount	Weight for Timing	Weighted Amount																											
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(e) Administration	(25,938)	50.00%	(12,969)																											
(f) Total			\$855,270																											
	3. Market value of assets adjusted for actual income disbursements [(1) + (2)(f)]	\$ 63,380,603																												
	4. Assumed rate of return on plan assets for the year	7.25%																												
	5. Expected return [(3) * (4)]	\$ 4,595,094																												

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<b>Actual Return on Market Value of Assets for Prior Year</b>	6. Market value of assets at 03/01/2008 <sup>1</sup>	\$ 62,525,333
	7. Income (less investment income) for prior plan year	8,964,558
	8. Disbursements paid in prior year	7,254,019
	9. Market value of assets at 03/01/2009	54,618,269
	10. Actual Return [(9) + (8) - (7) - (6)]	(9,617,603)

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<b>Gain/(Loss)</b>	11. Investment Gain/(Loss) for Prior Year [(10) - (5)]	\$ (14,212,697)
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<sup>1</sup> Market value of assets as of March 1, 2008, as reported in the Plan's financial statement, is \$24,438 greater than reported in the Actuarial Valuation as of March 1, 2008.

**DEVELOPMENT OF ACTUARIAL (MARKET-RELATED) VALUE OF ASSETS  
(CONTINUED)**

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*Actuarial  
Value of  
Assets as of  
03/01/2009*

12. Market value of assets at 03/01/2009 \$54,618,269

13. Deferred investment gains and (losses) for last 3 years:

	<u>Plan Year Beginning</u>	<u>Gain/(Loss)</u>	<u>Percent Deferred</u>	<u>Deferred Amount</u>
a)	2006*	\$ 0	25.00%	\$ -
b)	2007	(2,473,008)	50.00%	(1,236,504)
c)	2008	(14,212,697)	75.00%	(10,659,523)
d)	Total	\$ (16,685,705)		\$ (11,896,027)

14. Actuarial value of plan assets at 03/01/2009: Item (12) less item 13(d) \$66,514,296

Notes:

(\* ) The calculated value is determined by adjusting the market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last four years at the rate of 25% per year. For the actuarial valuation as of March 1, 2007, the actuarial value of assets was set to the market value of assets.



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**SECTION C**  
VALUATION PROCEDURES

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## ACTUARIAL COST METHOD

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*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:

- 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 member's benefit at the time of retirement;
- 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 and interest combined) percent of payroll contributions over 24.333 future years.

*Actuarial Value of Pension Plan Assets.* The Pension Fund previously used market value of assets for both government accounting and funding purposes. Starting with the actuarial valuation as of March 1, 2008, the actuarial value of assets recognizes future gains and losses based on a 4-year smoothed market method.

In a 4-year smoothed market asset valuation method, the current market value of assets is reduced (increased) for the current year and each of two succeeding years, by a portion of the gain/(loss) in market value during the prior year. Such gain/(loss) is determined as the excess/(deficit) of the current market value of assets over the market value of assets as of the prior year, increased to reflect interest at the actuarial rate and adjusted to reflect contributions and benefit payments during the prior year. The portion of such gain/ (loss) by which the current market value of assets is reduced (increased) shall be 75% in the current year, 50% in the first succeeding year and 25% in the second succeeding year.

## **ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS**

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The contribution and benefit values of the System are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost method described on the previous page.

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

- long-term rates of investment return to be generated by the assets of the System
- patterns of pay increases to members
- rates of mortality among members, retirees and beneficiaries
- rates of withdrawal of active members
- rates of disability among members
- the age patterns of actual retirement.

In a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survive; a period of time which can be as long as a century.

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Actual experience of the System will not coincide exactly with assumed experience. 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).

## VALUATION ASSUMPTIONS

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The assumed rate of investment return used was 7.25%, net of expenses, annually.

The mortality table used to measure retirement mortality was based on the 1983 Group Annuity Mortality Table. This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement.

Sample Attained Ages	Single Life Retirement Values			
	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	\$141.34	\$ 151.15	29.18	34.92
55	132.57	144.33	24.83	30.24
60	121.69	135.54	20.64	25.67
65	108.54	124.52	16.69	21.29
70	94.17	110.98	13.18	17.13
75	79.25	95.64	10.15	13.38
80	64.59	80.03	7.64	10.20

It was assumed that 75% of deaths from active status are duty related deaths, while 25% are ordinary related.

The disability retirement mortality table was the 1992 Railroad Retirement Board Disabled Annuitants mortality table.

Sample Attained Ages	Single Life Retirement Values			
	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	\$113.46	\$113.46	19.64	19.64
55	105.49	105.49	16.93	16.93
60	96.41	96.41	14.34	14.34
65	86.00	86.00	11.87	11.87
70	75.00	75.00	9.65	9.65
75	64.73	64.73	7.81	7.81
80	55.19	55.19	6.27	6.27

**VALUATION ASSUMPTIONS  
(CONTINUED)**

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*Rates of separation from active membership* are represented by the following table (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 terminating employment.

<b>Age</b>	<b>Employee Withdrawal Rate Per 1,000 Employees</b>	
	<b>Males</b>	<b>Females</b>
25	85.0	85.0
30	69.7	69.7
35	45.3	45.3
40	28.5	28.5
45	17.4	17.4
50	8.5	8.5
55	0.0	0.0
60 and Over	0.0	0.0

*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.

<b>Sample Ages</b>	<b>Salary Increase Assumptions For an Individual Member</b>
	<b>Increase Next Year</b>
20	5.00%
25	5.00%
30	5.00%
35	5.00%
40	5.00%
45	5.00%
50	5.00%
55	5.00%
60	5.00%

**VALUATION ASSUMPTIONS  
(CONTINUED)**

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*Sample rates of disability* were as follows:

<b>Employee Disablement Rate Per 1,000 Employees</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
25	0.8	0.8
30	1.0	1.0
35	1.4	1.4
40	2.0	2.0
45	3.1	3.1
50	5.2	5.2
55	9.9	9.9
60	17.4	17.4
65	28.5	28.5
70	43.1	43.1

It was assumed that 25% of disability is ordinary related disablement, while 75% is duty related.

**Probabilities of retirement** for members eligible to retire during the next year were as follows: Forty percent of Active Police Officers are assumed to retire at the earlier of: (a) later of 20 years of service and age 50, and (b) the later of 8 years of service and age 60. Thereafter, the rates of retirement are determined as follows:

For ages (x) between the first retirement age (r) and age 65, the retirement rate is determined by the formula  $(x-r)/(65-r)$ . For example:

<b>Age</b>	<b>Rate of Retirement</b>		<b>Age</b>	<b>Rate of Retirement</b>	
	<b>20 Yrs. of Service at Age 50</b>	<b>20 Yrs. of Service at Age 55</b>		<b>20 Yrs. of Service at Age 50</b>	<b>20 Yrs. of Service at Age 55</b>
50	40.0 %	-	58	53.3 %	30.0 %
51	6.7	-	59	60.0	40.0
52	13.3	-	60	66.7	50.0
53	20.0	-	61	73.3	60.0
54	26.7	-	62	80.0	70.0
55	33.3	40.0	63	86.7	80.0
56	40.0	10.0	64	93.3	90.0
57	46.7	20.0	65	100.0	100.0

It was assumed that 80% of participants are married.

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**SECTION D**

GASB STATEMENTS NO. 25 AND NO. 27

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**REQUIRED SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF FUNDING PROGRESS**

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<b>Actuarial Valuation Date</b>	<b>GASB Value of Assets (a)</b>	<b>Actuarial Accrued Liability (b)</b>	<b>Unfunded AAL (UAAL) (b - a)</b>	<b>Funded Ratio (a / b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Payroll [(b - a)/c]</b>
03/01/2004	\$ 54,469,873	\$ 101,824,016	\$ 47,354,143	53.5 %	\$ 10,217,000	463.5 %
03/01/2005	55,269,914	106,426,694	51,156,780	51.9	10,642,000	480.7
03/01/2006	58,400,853	112,448,880	54,048,027	51.9	11,195,000	482.8
03/01/2007 <sup>1</sup>	61,795,438	139,371,086	77,575,648	44.3	11,522,000	673.3
03/01/2008	64,355,651	145,458,945	81,103,294	44.2	12,142,000	668.0
03/01/2009	66,514,296	154,971,310	88,457,014	42.9	12,633,000	700.2

<sup>1</sup> Values prior to March 1, 2007, were taken from the actuarial valuation report as of March 1, 2006, as performed by Ted Windsor & Associates.



## SCHEDULE OF EMPLOYER CONTRIBUTIONS

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Fiscal Year Ended	Annual Required Contribution (a)	Total Employer Contribution (b)	Percentage Contributed (b / a)
02/28/2005	\$ 4,071,765	\$ 3,221,523	79.1 %
02/28/2006	4,301,359	4,417,058	102.7
02/28/2007 <sup>1</sup>	4,636,539	4,327,012	93.3
02/29/2008	6,659,960	4,327,745	65.0
02/28/2009	7,081,620	7,838,745	110.7

<sup>1</sup> Values prior to March 1, 2007, were taken from the actuarial valuation report as of March 1, 2006, as performed by Ted Windsor & Associates.

## ANNUAL PENSION COST AND CONTRIBUTIONS

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### *Contribution rates:*

<b>City</b>	Proceeds from a tax levy equal to the sum of: (a) annual normal cost plus (b) amortization of unfunded liability as a level percent of pay between now and July 1, 2033, plus (c) interest on (a) and (b) to date of payment.
<b>Plan members</b>	9.910% of regular salary

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<b>Annual Pension Cost for fiscal year ending February 28, 2009:</b>	Annual Required Contribution (ARC)*	\$ 7,081,620
	Interest on Net Pension Obligation	804,821
	Adjustment to ARC	<u>(653,345)</u>
	<b>Total Annual Pension Cost</b>	<b>\$ 7,233,096</b>

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<b>Net Pension Obligation (NPO):</b>	Net Pension Obligation (NPO) at Beginning of year, March 01, 2008:	\$ 11,100,974
	Total Annual Pension Cost:	7,233,096
	Total Employer Contribution for year ended February 28, 2009:	7,838,745
	<b>Net Pension Obligation (NPO) at End of year, February 28, 2009:</b>	<b>\$ 10,495,325</b>

\* The annual required contribution is equal to the sum of: (a) annual normal cost plus (b) amortization of unfunded liability as a level percent of pay between now and July 1, 2033 plus (c) interest to the end of year.

## PENSION COST SUMMARY FOR GASB #27

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<b>Year Ended February 28</b>	<b>Annual Pension Cost</b>	<b>Total Employer Contribution</b>	<b>% of Annual Pension Cost Contributed</b>	<b>Net Pension Obligation</b>
2005	\$ 4,157,307	\$ 3,221,523	77.5%	\$ 8,265,927
2006	4,388,343	4,417,058	100.7	8,237,212
2007 <sup>1</sup>	4,728,814	4,327,012	91.5	8,639,014
2008	6,789,705	4,327,745	63.7	11,100,974
2009	7,233,096	7,838,745	108.4	10,495,325

<sup>1</sup> Values prior to fiscal year ending February 28, 2007, were taken from the actuarial valuation report as of March 1, 2006, as performed by Ted Windsor & Associates.

