

**CITY OF JOLIET POLICE OFFICERS' PENSION FUND  
ANNUAL ACTUARIAL VALUATION  
FOR THE YEAR BEGINNING  
JANUARY 1, 2006**

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December 18, 2007

The Pension Board  
City of Joliet Police Officers' Pension Fund  
Joliet, Illinois

Dear Board Members:

We are pleased to provide our formal annual Actuarial Valuation Report as of January 1, 2006, covering the City of Joliet Police Officers' Pension Fund. This report provides, among other things, the minimum annual contribution requirements of the Plan for the Plan Year commencing January 1, 2006, and ending on December 31, 2006 (which directly affects the Village's tax levy in the 2007 fiscal year that is collected and deposited into the Pension Trust in fiscal year 2008). 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 Joliet (i.e., Plan Sponsor), and on the actuarial cost method and the set of actuarial assumptions as described in Section C of the report. The report reflects the following changes in assumptions effective as of January 1, 2006:

- The investment rate of return assumption was changed from 7.75% to 7.50%.

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. Michael R. Kivi and Alex Rivera of Gabriel, Roeder, Smith & Company have the following qualifications:

**Michael Kivi** is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries, and an Enrolled Actuary with over 35 years of responsible experience in the actuarial and pension consulting field.

**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.

It is our understanding, in accordance with the Illinois Compiled Statutes, that the undersigned more than satisfy 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.

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

Sincerely,



Michael R. Kivi, F.S.A.  
Senior Consultant



Alex Rivera, F.S.A.  
Senior 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</i> Number of Active Police Officers'	276	282
<i>Data</i> Number of Service Retirees	72	72
Number of Disabled Lives	12	12
Number of Widow Beneficiaries	29	29
Number of Children Beneficiaries	0	0
Number of Separated Deferred Police Officers'	12	16
Number of Handicapped Beneficiaries	1	1
TOTAL	402	412
 Total Annual Salaries of Police Officers'	 \$ 18,832,734	 \$ 19,409,307
<i>Plan</i> Gross Annual Normal Cost	\$ 3,832,366	\$ 4,206,519
<i>Liabilities</i> Less Expected Member Contributions (for Applicable Plan Year)	1,866,324	1,923,462
Net Annual Normal Cost (Municipality Paid)	\$ 1,966,042	\$ 2,283,057
Net Annual Normal Cost (As a percentage of pay)*	10.4 %	11.8 %
Gross Actuarial Accrued Liability:		
Active Police Officers'	\$ 89,114,942	\$ 96,524,934
Retirees, Beneficiaries & Disabled	52,649,245	55,769,658
TOTAL	\$141,764,187	\$152,294,592
 Actuarial Value of Assets at Valuation Date	 \$ 90,223,437	 \$ 96,962,701
Unfunded (Overfunded) Actuarial Accrued Liability	\$ 51,540,750	\$ 55,331,891
 <b>Funded Position of Plan's Gross Actuarial Accrued Liability**</b>	 63.6 %	 63.7 %

\* Percents above represent annual plan contributions expressed as percentages of covered Police Officers' salaries

\*\* 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)	\$1,966,042	\$2,283,057
	Annual Amortization Payments for Funding Unfunded Actuarial Accrued Liability Over 40 Years from July 1,1993 as a level percentage of payroll	2,381,246	2,552,106
	Interest Adjustment to Expected Date of Payment into the Fund (Optional)	<u>891,871</u>	<u>958,221</u>
	Total Minimum Annual Contribution Requirement for the Current Plan Year	<u>\$5,239,159</u>	<u>\$5,793,384</u>
	Minimum Annual Contribution (As a percentage of pay)	27.8%	29.8%

**DERIVATION OF EXPERIENCE GAIN (LOSS)  
YEAR ENDED JANUARY 1, 2006**

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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 01/01/2005	\$51,540,750
2.	Normal Cost Due at 01/01/2005	3,832,366
3.	Interest on (1) and (2) to 01/01/2006 (at 7.75% per annum)	4,291,416
4.	Contributions (Employer and Employee) applicable to the 2005 Plan Year, with interest to 12/31/2005	6,719,275
5.	Expected Unfunded Actuarial Accrued Liability at 01/01/2006 Before Assumption Changes [(1) + (2) + (3) - (4)]	\$52,945,257
6.	Effect of Assumption Changes on Unfunded Actuarial Accrued Liability at 01/01/2006 <sup>1</sup>	5,372,945
7.	Expected Unfunded Actuarial Accrued Liability at 01/01/2006 [(5) + (6)]	58,318,202
8.	Actual Unfunded Actuarial Accrued Liability at 01/01/2006	55,331,891
9.	Gain (Loss) for the 2005 Plan Year [(7) - (8)]	\$2,986,311

Valuation Date January 01	Experience Gain (Loss) As % of Beginning Accrued Liability
1999	(6.00)%
2000	(7.91)%
2001	(2.93)%
2002	1.48%
2003	(5.74)%
2004	(2.50)%
2005	(5.28)%
2006	2.11%

<sup>1</sup>Effective as of January 1, 2006, the investment rate of return assumption was changed from 7.75% to 7.50%.

## 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 assets and salary increase experience over the last 16 actuarial valuations performed by Gabriel, Roeder, Smith & Company:

<b>Plan Year Ending</b>	<b>Rate of Return On Plan Assets</b>	<b>Salary Scale Increase</b>
12/31/1990	7.8 %	5.9 %
12/31/1991	7.9	4.6
12/31/1992	7.6	7.0
12/31/1993	6.8	6.2
12/31/1994	5.8	6.5
12/31/1995	9.6	7.1
12/31/1996	3.4	8.7
12/31/1997	7.1	3.6
12/31/1998	8.8	5.8
12/31/1999	5.5	8.7
12/31/2000	6.9	6.0
12/31/2001	3.4	5.4
12/31/2002	(0.3)	7.6
12/31/2003	9.4	7.4
12/31/2004	4.9	9.9
12/31/2005	3.8	2.7

The Salary Scale increase has averaged 6.4% over the last 16 years. We believe the 5.5% salary scale continues to be a reasonable long-term assumption. As part of each annual valuation, we will review salary scale increases and determine whether the current assumption continues to be appropriate.

Over the same 16-year period, the Plan's assets have averaged an annual rate of investment return of 6.1%. We believe the 7.50% annual rate of return on Plan assets is within the range of reasonable assumptions. However, we recommend that the City monitor this assumption for continuing reasonableness at each future valuation.

## COMMENTS AND ANALYSIS (CONTINUED)

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<b><i>Analysis of the Experience Gain (Loss)</i></b>	The experience gain(loss) reported on page A-3, is the net result of the following:	
	(a) From plan asset performance	(\$2,514,041)
	(b) Other sources ("net effect" of salary increases, terminations, new entrants, retirements, etc.)	5,500,352
	Total Gain/(Loss): [(a) + (b)]	\$2,986,311

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<b><i>Changes in the Annual Contribution</i></b>	The dollar amount for the plan's annual minimum required contribution is approximately 10.6% 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 27.8% to 29.8%). The important factors producing this change are summarized as follows:	
	1. Minimum Annual Contribution Requirement for prior plan year	\$5,239,159
	2. Actual Asset Performance (based on market-related value of assets)	143,697
	3. Increase in Normal Cost and Amortization Amount due to anticipated pay increases	288,154
	4. Changes in Assumptions <sup>1</sup>	491,295
	5. Other Sources (Demographic (gains)/losses)	(368,921)
	6. Minimum Annual Contribution Requirement for current plan year (sum of items 1 through 5)	\$5,793,384

<sup>1</sup>Effective as of January 1, 2006, the investment rate of return assumption was changed from 7.75% to 7.50%.

## 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 used market-related 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. Finally, receivables for plan years prior to the current plan year which are not in Plan assets by December 31, 2005, are not included in assets for Government accounting standards purposes.

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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 Joliet Police Officers' Pension Fund in the January 1997 report. GASB Statement 27 is applicable to fiscal years beginning after June 15, 1997. It was adopted by the City of Joliet Police Officers' Pension Fund in the January 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. 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 (JANUARY 1, 2006)

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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: July 29, 2005

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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 3 months after receiving his/her first appointment (or within 3 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.