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The Police Pension Trust Fund of the City of Stamford

Interim Actuarial Valuation

July 1, 2013

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December 12, 2013

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I. Introduction

A. Purpose of the Valuation

Liabilities were valued as of July 1, 2012 using data, cost information, and assumptions from the July 1, 2012 Valuation. The July 1, 2012 liabilities were then projected to July 1, 2013.

The purpose of the valuation is to report the estimated funded status of the plan as of July 1, 2013 as well as an actuarially determined contribution for the fiscal year ending June 30, 2015.

It is important to note that the ultimate cost of a pension plan is based primarily on the level of benefits promised by the plan. The pension fund's investment earnings serve to reduce the cost of plan benefits and expenses. Thus,

City's Ultimate Cost	=	*Benefits Paid*	+	*Expenses Incurred*	−	*Employee Contributions*	−	*Investment Return*

Assets reported are actual (including accruals) through June 30, 2013 and reflect the asset smoothing method. Liabilities have been projected from the last full valuation done as of July 1, 2012.

We have assumed that no changes have been made to the plans since the July 1, 2012 actuarial valuation.

B. Comments

The market value return was approximately 13% this year. Because we are still smoothing in past asset losses, the actuarial smoothed return was 6.22% this year. The contribution increased by $415,000 this year. Of this amount, $300,000 is attributable to the actuarial asset experience loss and $115,000 is the expected increase.

There are still approximately $11,300,000 in past asset losses that need to be "smoothed" in. Last year this amount was approximately $20,000,000. The decrease is due to the favorable market value return this year.

I. Introduction
continued

C. New Accounting Standards

In June of 2012, The Government Accounting Standards Board (GASB) issued statements 67 and 68. GASB 67 is a new standard that pertains to financial reporting for pension plans. In general, it replaces GASB 25 and it is effective for fiscal years beginning after June 15, 2013. GASB 68 is a new standard that pertains to accounting and financial reporting for pensions. In general, it replaces GASB 27 and it is effective for fiscal years beginning after June 15, 2014. Both statements replace the relevant provisions of GASB 50.

Currently, your annual financial report tracks the Net Pension Obligation (NPO) and the NPO is displayed in the footnote section of the annual financial report. With GASB 68, the NPO will no longer be tracked. A new item called Net Pension Liability (NPL) will be displayed not as a footnote but directly on your balance sheet. For both standards, liabilities are calculated using the Entry Age Normal Cost Method. In general, the NPL is EAN Accrued Liability less the Market Value of Assets. A table that displays the NPL for the Police Pension Trust Fund of the City of Stamford is below.

Valuation Date	Entry Age Normal Accrued Liability	Market Value Of Assets	Net Pension Liability
July 1, 2012	207,596,000	154,718,000	52,878,000
July 1, 2013	216,819,000	169,458,000	47,361,000

In addition to replacing the NPO with NPL, the Annual Required Contribution (ARC) will also be eliminated. Even though the ARC will be eliminated, we will work with you to develop a contribution policy. The new term for this is called the Actuarially Determined Contribution (ADC). One possible ADC is to use the same concepts that were used to develop the ARC which would mean no change in the present funding policy.

Under the prior standards the ARC served as both the contribution policy and the accounting expense. As noted above the ARC is eliminated and replaced with the ADC with regard to the funding policy. The new pension expense will be quite different from the ARC and it has several components (including normal cost, interest cost, amortization components, actual return, and plan changes). The new pension expense will help reconcile the change in the Net Pension Liability each year. In addition, it will be more volatile than the ARC and so not suitable for use as a contribution policy.

If the City wants to see how the pension expense works, please let us know and we will prepare a sample exhibit. Like the Net Pension Liability, the calculation of the pension expense is based upon the Entry Age Normal Cost Method and will no longer be a footnote but reported directly in the annual financial report.

I. Introduction

continued

D. Certification

This report presents the results of the July 1, 2013 Actuarial Valuation for The Police Pension Trust Fund of the City of Stamford (the Plan) for the purpose of estimating the funded status of the Plan and determining the Actuarially Determined Contribution (ADC) for the fiscal year ending June 30, 2015. This report is intended to satisfy the requirements of Connecticut General Statute 7-450a. This report may not be appropriate for any other purpose.

The valuation has been performed in accordance with generally accepted actuarial principles and practices. It is intended to comply with all applicable Actuarial Standards of Practice.

I certify that the actuarial assumptions and methods that were selected by me and represent my best estimate of anticipated actuarial experience under the Plan.

In preparing this valuation, I have relied on employee data provided by the Plan Sponsor, and on asset and contribution information provided by the Trustee. I have audited neither the employee data nor the financial information, although I have reviewed them for reasonableness.

The results in this valuation report are based on the Plan as summarized in the *Plan Provisions* section of this report and the actuarial assumptions and methods detailed in the *Description of Actuarial Methods and Assumptions* section of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

Evan W. Woollacott

Evan W. Woollacott, Jr., FCA, MAAA, EA
11-04513

December 12, 2013

II. Results of the Valuation

A. Assets

Development of Market Value

1. Beginning value, 7/01/2012	
a. Trust assets	$ 154,717,986
b. Accrued contributions - Employee	0
c. Benefits payable	0
d. Administrative expenses payable	0
e. Net: (a) + (b) – (c) – (d)	154,717,986
2. Contributions	
a. Contributions during year - Employer	4,885,000
b. Contributions during year - Employee	1,231,498
c. Total for Plan Year	6,116,498
3. Disbursements	
a. Benefit payments during year	10,786,696
b. Administrative expenses during year	0
c. Change in benefits payable	0
d. Change in administrative expenses payable	0
e. Total for plan year	10,786,696
4. Net Investment Return	
a. Interest and dividends	605,774
b. Other Income	0
c. Realized/unrealized gain (loss)	19,087,987
d. Investment – related expenses	(284,043)
e. Total	19,409,718
5. Ending Value, 6/30/2013	
a. Trust assets: (1e) + (2c) - (3e) + (4e)	169,457,506
b. Accrued contribution – Employer	0
c. Accrued contribution – Employee	0
d. Benefit payable	0
e. Administrative expenses payable	0
f. Net: (a) + (b) + (c) – (d) – (e) or (1) + (2) – (3) + (4)	169,457,506
6. Approximate rate of return 2012-2013	12.7%

II. Results of the Valuation
continued

Development of the Actuarial Asset Value

1.	Actuarial Asset Value at July 1, 2012	$	174,748,070
2.	Expected Return		13,558,208
3.	Contributions		6,116,498
4.	Disbursements		10,786,696
5.	Expected Actuarial Asset Value at June 30, 2013 (1) + (2) + (3) – (4)		183,636,080
6.	Market Value of Assets		169,457,506
7.	Appreciation (Depreciation) Capitalized .20 x [(6) – (5)]		(2,835,715)
8.	Preliminary Actuarial Asset Value at June 30, 2013 (5) + (7)		180,800,365
9.	70% of Market Value .7 x (6)		118,620,254
10.	130% of Market Value 1.3 x (6)		220,294,758
11.	Actuarial Asset Value at June 30, 2013, not less than (9); and not greater than (10)		180,800,365
12.	Round to nearest thousand		180,800,000
13.	Actuarial Asset Return		6.22%

II. Results of the Valuation
(continued)

B. Development of Projected Accrued Liability and Funded Ratio

		July 1, 2013 Interim Valuation	July 1, 2012 Valuation
1.	Projected Accrued Liability	$213,642,000	$204,563,000
2.	Assets (Actuarial Value)	$180,800,000	$174,748,000
3.	Unfunded Accrued Liability: (1) - (2)	$32,842,000	$29,815,000
4.	Funded Ratio: (2) ÷ (1)	84.6%	85.4%

II. Results of the Valuation
(continued)

C. Actuarially Determined Contribution

		July 1, 2013 for Fiscal Year Ending June 30, 2015	July 1, 2012 for Fiscal Year Ending June 30, 2014
1.	Ongoing Annual Cost	$4,362,000	$4,235,000
2.	Estimated Actuarial Employee Contributions	1,224,000	1,189,000
3.	City's Ongoing Annual Cost: (1) - (2)	3,138,000	3,046,000
4.	Amortization of Unfunded Accrued Liability (15 years)	3,507,000	3,184,000
5.	Actuarially Determined Contribution: (3) + (4)	$6,645,000	$6,230,000

III. Actuarial Cost Methods and Assumptions

A. Actuarial Cost Methods

Funding Method

The actuarial method used to develop the Actuarially Determined Contribution is the Projected Unit Credit Cost Method.

The Ongoing Annual Cost equals the total present value for all participants of the benefit accruing during the coming year, increased to reflect salaries projected to the assumed retirement date.

The Accrued Liability equals the present value of all benefits accrued to date, increased to reflect salaries for all active participants. The total Accrued Liability is reduced by plan assets to develop the Unfunded Accrued Liability.

The cost of amortizing the Unfunded Accrued Liability constitutes a portion of the Annual Recommended Contribution.

The total Actuarially Determined Contribution equals the Ongoing Annual Cost, further increased by any positive amortization of the Unfunded Accrued Liability. The amortization period is 15 years.

Asset Valuation Method

The Actuarial Value of Assets used in the development of the Annual Recommended Contribution is designed to smooth out fluctuations in the market value. An Expected Actuarial Value of Assets is determined based on the prior year's Actuarial Value of Assets and the assumed interest rate equal to the valuation interest rate. The Actuarial Value of Assets is equal to the Expected Actuarial Asset Value plus 20% of the difference between the Market Value and the Expected Value. The Actuarial Value of Assets is limited to a minimum of 70% or a maximum of 130% of the Market Value.

III. Actuarial Cost Methods and Assumptions

B. Actuarial Assumptions

Mortality:	RP-2000 Blue Collar Combined - Generational Mortality Table.
Mortality Improvement:	Pre and Post-retirement: Projected to date of decrement using Scale AA.
Investment Return:	7.75% per year.
Salary Scale:	Yearly Rates of Increases

Age	Rate
20	6.50%
25	6.50%
30	5.85%
35	5.20%
40	4.55%
45	3.90%
50	3.25%
55+	3.00%

Payroll Growth Assumption:	3% used to project normal cost only.
Medicare Part B Reimbursements:	3% increase assumption each year.
Retirement Age:	Sample rates of assumed annual rates of retirement after completion of 25 years are as follows:

Age	**Retirement Rate**
55	50%
56	50%
57	50%
58	50%
59	50%

An additional 50% is added upon attainment of 20 years of service and 100% of members remaining beyond the earlier of age 60 with 25 years of service or age 65 are assumed to retire.

III. Actuarial Cost Methods and Assumptions

Turnover: The following annual rates of turnover are assumed:

Age	Probability
20	5.44%
25	4.89%
30	3.70%
35	2.35%
40	0.00%
45	0.00%
50	0.00%
55	0.00%
60	0.00%

Disability: The following annual rates of disability are assumed:

Age	Probability
20	.05%
25	.05%
30	.05%
35	.06%
40	.09%
45	.18%
50	.40%
55	.85%
60	1.74%

Survivorship: 80% of employees assumed to be married, with wives 4 years younger than husbands.

Expenses: None, administrative expenses are assumed to be paid directly by City.

Sick Bank and Vacation Bank: 50% of retirees are assumed to elect an annuity from the fund.

Post-Retirement Life Insurance: 100% of active and retired employees are assumed to have a $4,000 life insurance policy beginning at retirement.

IV. Summary of Current Principal Pension Plan Provisions

Pension Earnings:	Base Salary in Final Year of Employment plus 14 paid holidays.

Normal Retirement:

Eligibility:	20 years of service

Benefit:

Years of Service	**% of Pension Earnings**
20	50.00%
21	53.00%
22	56.00%
23	59.00%
24	62.00%
25	65.00%
26	67.33%
27	69.66%
28	71.99%
29	74.32%
30	76.65%

Limits on Annual Benefit:

Maximum:	76.65% of pension earnings.
Minimum:	None.

Early Retirement:

Eligibility:	None.
Benefit:	See Termination Benefit.

Disability – Non-Service Connected:

Service Requirement:	20 years of service.
Benefit:	50% of salary, not less than accrued benefit.

Disability – Service Connected:

Service Requirement:	None.
Benefit:	100% of pay (or 75% of pay depending on extent of disability).

IV. Summary of Current Principal Pension Plan Provisions (continued)

Pre-Retirement Death Benefit – Non Service Connected:

Service Requirement:	10 years of service.
Benefit:	50% of salary.

Pre-Retirement Death Benefit – Service Connected:

Service Requirement:	None.
Benefit:	50% of salary.

Post-Retirement Spouse's Benefit:	100% of pension retiree was receiving.
Post-Retirement Death Benefit:	Lump sum, excess of accumulated contributions over benefits paid to member or survivors (if not eligible for spouse's benefit).
Post-Retirement Life Insurance:	Lump Sum equal to $4,000.00.

Vesting in Accrued Benefit:

Eligibility:	10 years of service.
Benefit:	50% off final salary times the ratio of service at termination to 20 years. Benefit is payable when the officer would have had 20 years of service but not earlier than age 48.

Termination Benefit:	Accumulated contributions as lump sum, if not vested.
Employee Contributions:	7% of salary; no contributions for those with 30 or more years of service.
Additional Retirement Benefits:	Employees can trade in 50% of sick leave for additional pension credit. If an officer's sick bank has less than 200 days, unused vacation time may be added, subject to a maximum of 200 sick and unused vacation days combined. Each 20 days grants an additional 1.5% of salary up to a maximum of 7.5%.