

Actuarial Valuation Report on the  
Toronto Fire Department Superannuation and Benefit Fund  
as of  
December 31, 2006

April 2007

Prepared for:  
Toronto Fire Department Superannuation and Benefit Fund Committee  
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## Introduction

This report, prepared for the Toronto Fire Department Superannuation and Benefit Fund Committee, presents the results of our actuarial valuation of the Toronto Fire Department Superannuation and Benefit Fund (the “Plan”) as at December 31, 2006.

The report is prepared in accordance with applicable Ontario pension legislation and the requirements for registration under the Income Tax Act of Canada, and is intended to be filed with the Canada Revenue Agency (the “CRA”) and the Financial Services Commission of Ontario (the “FSCO”). The Plan is registered under the Income Tax Act and the Pension Benefits Act of Ontario (Registration No. 0351601).

Information presented is intended to serve a number of purposes, as follows:

- To estimate the ongoing financial condition of the Plan, that is, a comparison of the actuarial value of pension fund assets with the actuarial present value of future benefits and the resultant actuarial surplus.
- The availability of actuarial surplus to continue inflation protection pension increases to retired members and their beneficiaries.
- To confirm actuarial surplus for contribution holidays in 2007 and after.
- To review the solvency of the Plan with respect to benefits accrued to the date of the valuation under Plan termination conditions.
- To determine any solvency deficiency and the need for any special payments to amortize any solvency deficiency.
- To compare actual and expected experience under the Plan during the inter-valuation period and reconcile the change in the ongoing funded status of the Plan.
- To provide supplementary information to support government filings on funding, as may be required by the Canada Revenue Agency and the Financial Services Commission of Ontario.

The Plan covers a closed group of employees hired prior to July 1, 1968. As of December 31, 2006, there are no longer any active members in the Plan.

The Plan was amended effective January 1, 1992 for compliance with CRA legislation with respect to pension plans.

Commencing 1986, City Council adopted a policy of providing ad hoc increases in pension to pensioners based on an excess interest indexing methodology. The policy provided for and subject to City Council approval, each year, ad hoc increases subject to a minimum of 50% increase in the Consumer Price Index (the "CPI"), year over year, December to December, and, a maximum increase equal to the lesser of the increase from "excess interest" and 100% CPI.

Commencing 1997, the Plan by-laws were amended to provide for future increases to pensioners including spouses of deceased retired members, based on the lesser of:

- (a) the investment rate of return of Fund assets (using a 5-year smoothing technique) in excess of the rate of return required to maintain the actuarial solvency of the Benefit Fund as determined by the actuary, and
- (b) the increase in the year over year level of the average CPI,

to the extent that actuarial surplus is available.

Pensions in payment to pensioners and spouses that commenced prior to January 1, 2006 were increased by 2.23% effective January 1, 2006. The minimum annual pension for members remained at \$13,600, effective since July 1, 1997.

For information purposes only, the estimated cost as at December 31, 2006 to provide anticipated future ad hoc pension increases based on 100% of the increase in the CPI is \$69,668,000, based on the current valuation data and valuation assumptions.

A summary of the main Plan provisions is shown in Appendix "C".

The actuarial assumptions and valuation methods used in the going-concern valuation remain unchanged from the December 31, 2005 going-concern valuation and are shown in Appendix "A". Emerging experience different from the actuarial assumptions adopted for this valuation will result in gains or losses which will be revealed in future valuations.

The current going-concern valuation reveals that the total Plan assets at actuarial value are \$327,990,000 as of December 31, 2006. The sum of the present value of future benefits for inactive members is \$270,703,000. As a result, the actuarial surplus under the Plan, on a going-concern basis, is \$57,287,000 as of December 31, 2006. The funded ratio for the Plan is 121.2% as at December 31, 2006, compared to 114.2% as at December 31, 2005. Section V of this report shows the reconciliation of the actuarial surplus of the Plan from December 31, 2005 to December 31, 2006.

The current valuation confirms that the Plan has no solvency deficiency as of December 31, 2006. Under Section 47(1) of Regulation 909 of the Pension Benefits Act, R.S.O. 1990, the pension benefits provided by this Plan are not guaranteed by the Pension Benefits Guarantee Fund and this Plan is exempt from any Guarantee Fund assessment.

The next actuarial valuation report must be filed with the FSCO no later than December 31, 2009.

The undersigned is available to address any questions which may arise with regard to this report.



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Cynthia L. Rynne  
Fellow, Society of Actuaries  
Fellow, Canadian Institute of Actuaries

April 12, 2007

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Date

<b>I      Summary of Principal Valuation Results</b>
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For convenience of reference, the principal results of the valuation and a comparison with the results of the previous valuation are summarized below:

<u>Valuation Date</u>	<u>12/31/2006</u>	<u>12/31/2005</u>
<b>A      Going-Concern Valuation</b>		
<b>Invested Assets (000's)</b>		
Market Value	\$ 362,578	\$ 354,493
Book Value	\$ 352,400	\$ 382,146
Actuarial Value	\$ 327,990	\$ 318,028
<b>Plan Assets (000's)</b>		
Actuarial Value of Invested Assets	\$ 327,990	\$ 318,028
Present Value of		
(1) Future Member and City Matching Contributions	0	0
(2) Future City Special Payments	<u>0</u>	<u>0</u>
<b>Total Plan Assets (000's)</b>	\$ 327,990	\$ 318,028
<b>Actuarial Liabilities (000's)</b>	\$ 270,703	\$ 278,536
<b>Actuarial Surplus (000's)</b>	\$ 57,287	\$ 39,492
<b>Excess Surplus</b>	\$ Nil	\$ Nil
<b>Funded Ratio</b>	121.2%	114.2%
<u>Current Service Contributions for the Year following the Valuation Date</u>		
Estimated Employee Contributions	\$ 0	\$ 0
Estimated City Current Service Contribution	\$ 0	\$ 0
<b>B      Solvency Valuation</b>		
Market Value of Invested Assets (000's)	\$ 362,578	\$ 354,493
Solvency Liability (000's)	\$ 318,802	\$ 332,650
Solvency Deficiency	\$ Nil	\$ Nil
Solvency Ratio (Assets/Liabilities)	113.7%	106.6%

<b>II Membership Data</b>
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<u>Valuation Date</u>	<u>12/31/2006</u>	<u>12/31/2005</u>
Number of Retired Members	671	699
Annual Pension	\$ 23,312,383	\$ 23,917,405
Annual Average Pension	\$ 34,743	\$ 34,217
Average Age	72.4	71.6
Number of Spousal Beneficiaries	338	331
Annual Pension	\$ 6,459,896	\$ 6,127,850
Annual Average Pension	\$ 19,112	\$ 18,513
Average Age	76.5	75.9

1. The employee data used in this valuation was furnished by the City of Toronto. Since the form of pension and spouse date of birth for inactive members are not readily available for valuation purposes, the following assumptions pertaining to this data have been made:

- 80% of retired members are married. The form of pension that is payable to the member is life with 66.67% continuing to the spouse following the member's death;
- 20% of retired members are not married. The form of pension that is payable to the member is life only;
- female spouses are assumed to be 3 years younger than their male spouses.

2. We have performed the following tests on the reliability and completeness of the data provided, and, in our opinion, the data used in this valuation is sufficient and reliable for the purposes of this valuation:

- current membership totals were reconciled to the membership totals at the previous valuation;
- pension amounts were compared to pension amounts in the previous valuation to verify increases indicated by the City of Toronto;
- average age and service were compared to average age and service at the previous valuation.

3. A reconciliation of membership from December 31, 2005 to December 31, 2006 is as follows:

	<u>Pensioners</u>	<u>Spouses</u>
At December 31, 2005	699	331
– Deaths, no Continuation	–3	–18
– Deaths, with Spouse Continuation	<u>–25</u>	<u>+25</u>
At December 31, 2006	671	338

4. Tables 1 and 2 of Appendix “B” provide a distribution by age and sex of the number and annual pensions of retired members and spousal beneficiaries, respectively.



<b>III Invested Assets</b>
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1. CIBC Mellon is the custodian of the assets of the Plan. For the purposes of this valuation, we have relied on the draft financial statements as at December 31, 2006 provided by the City of Toronto. The data was reviewed for consistency, accuracy and completeness and the following tests were completed:

- the beginning market and book values of the assets from the asset statements were compared to the ending values from the previous valuation;
- the contributions and benefit payments shown on the asset statements were compared to expected contributions and benefit payments based on the previous valuation; and
- the invested funds were reviewed for any material changes.

2. A reconciliation summary of the change in the market value of the Benefit Fund for the period January 1, 2006 through December 31, 2006 is set out in Table A.

3. The reported market value as of December 31, 2006 is \$362,577,845. The invested funds are distributed as follows:

	<u>(Amounts in 000's)</u>	<u>%</u>
Bonds & Debentures	\$ 164,909	45.48
Equities	186,398	51.40
Cash	2,416	0.67
Accrued Income	976	0.27
Accounts Receivable less Accounts Payable	(1,428)	(0.39)
Short Term Investments	<u>9,307</u>	<u>2.57</u>
 Total	 <u>\$ 362,578</u>	 <u>100.00</u>

4. The actuarial value of assets is a 4-year moving-average market value. This method recognizes realized and unrealized investment gains and losses over a period of 4 years. The actuarial value of invested assets at December 31, 2006 is \$327,989,585. The development of the actuarial value is set out in Table B.

5. In 2006, the Benefit Fund earned approximately 13.71%, net of expenses, based on the actuarial value of invested assets. In performing the rate of return calculation, payments into and out of the Fund are distributed uniformly throughout the year.

**Table A**

Reconciliation of Market Value of Invested Assets  
From January 1, 2006 to December 31, 2006

During the period January 1, 2006 to December 31, 2006, the market value of the invested assets increased as follows:

Market Value at January 1, 2006	\$ 354,492,791
<i>PLUS:</i>	
Employee Contributions	0
City Matching Contribution	0
City Special Contributions	0
<i>LESS:</i>	
Annuity Payments	(31,488,147)
Fees and Expenses	(1,295,527)
Investment Income and Appreciation/(Depreciation) in Market Value of Invested Assets	<u>40,868,728</u>
Market Value at December 31, 2006	<u>\$ 362,577,845</u>

**Table B**

Development of Actuarial Value of Invested Assets

December 31, 2006 Market Value		\$ 362,577,845
<i>LESS:</i>		
3/4 of 2006 Realized and Unrealized Gains and (Losses)	\$ 17,273,516	
1/2 of 2005 Realized and Unrealized Gains and (Losses)	12,035,017	
1/4 of 2004 Realized and Unrealized Gains and (Losses)	5,279,727	
		<u>(34,588,260)</u>
December 31, 2006 Actuarial Value		<u>\$ 327,989,585</u>

**IV Actuarial Liabilities and Going -Concern Funding Position at December 31, 2006**

The going-concern funding position of the Plan as at December 31, 2006, based on the assumptions and valuation methods described in Appendix "A", is as follows:

(Amounts in 000's)

Plan Assets

Actuarial Value of Invested Assets	<u>\$ 327,990</u>
Total Plan Assets	\$ 327,990

Actuarial Liabilities

Retired Members and their Beneficiaries	<u>\$ 270,703</u>
Total Actuarial Liabilities	\$ 270,703

Actuarial Surplus

\$ 57,287

<b>V      Reconciliation of Change in Going-Concern Funded Position</b>
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A reconciliation of the going-concern funded position over the period December 31, 2005 to December 31, 2006 is as follows:

		<u>(Amounts in 000's)</u>
December 31, 2005 Surplus Account		\$ 39,492
Interest on Surplus Account		<u>2,567</u>
		\$ 42,059
 <i>Plus Gains due to:</i>		
Investment Gain on Actuarial Value of Assets	21,801	
Miscellaneous	<u>304</u>	
		22,105
 <i>Less Losses due to:</i>		
Cost of 2006 Pension Increases to Pensioners and Spouses	\$ 6,416	
Pensioner Mortality Loss	<u>461</u>	
		<u>(6,877)</u>
 December 31, 2006 Surplus Account		 <u>\$ 57,287</u>

Investment returns were greater than the 6.5% assumed rate of return resulting in a gain.

<b>VI Solvency Valuation and Solvency Funding Position at December 31, 2006</b>
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The Ontario Pension Benefits Act requires a special valuation to determine the solvency of the Plan under conditions of Plan termination as of the valuation date. If there are insufficient assets to meet the liabilities under the solvency test, then additional special payments from the City are required to eliminate the solvency deficiency. The solvency funding position of the Plan as at December 31, 2006, using the solvency assumptions and valuation methods described in Appendix "A", is as follows:

**1. Solvency Funding Status**

	<u>(Amounts in 000's)</u>
Solvency Liabilities	
Retired Members and their Beneficiaries	\$ <u>318,802</u>
Total Solvency Liabilities	\$ 318,802
Market Value of Invested Assets	<u>362,578</u>
Solvency Deficiency	<u><u>\$ Nil</u></u>

**2. Transfer Ratio**

The transfer ratio is determined by dividing the market value of invested assets by the solvency liabilities. This indicates a transfer ratio greater than 1.0.

**3. Wind-Up Status**

At December 31, 2006 the wind-up liabilities were \$318,802,000. Assuming wind-up expenses of \$100,000, net assets available on wind-up are \$362,478,000. On wind-up there would be a surplus of \$43,676,000.

## VII Contribution Requirements under the Plan

1. There are no longer any active members in the Plan, and therefore, no further member contributions. No matching City contributions are any longer required.
2. In addition, there are no longer any special payments required by the City to amortize previously established unfunded actuarial liabilities.
3. The Ontario Regulation 909 under the Pension Benefits Act, R.S.O. 1990 requires that any future special payments made by the City be remitted to the pension fund monthly.
4. No excess surplus exists for purposes of Section 147.2(2)(d) of the Income Tax Act at the valuation date. For this Plan, excess surplus is determined as the amount of surplus in excess of 10% of the actuarial liabilities. For determining the amount of excess surplus, actuarial liabilities include the estimated value of anticipated future ad hoc pension increases at 100% CPI. It is estimated that the value of anticipated future ad hoc pension increases at 100% CPI is \$69,668,000. If there is an excess surplus, no City contributions would be permitted while the Plan has an excess surplus.

## VIII Subsequent Events

In accordance with the Consolidated Standards of Practice of the CIA, we have reviewed all subsequent events pertaining to this Plan, i.e. any events occurring subsequent to December 31, 2006 but prior to the date of this report. There are no subsequent events of which we are aware.



<b>Appendix “A”</b> <b>Outline of Actuarial Assumptions and Valuation Methods</b>
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### Going-Concern Valuation Assumptions

**Interest Rate**

The valuation interest rate assumes a long-term average rate of return on pension fund assets, net of administration expenses, actuarial fees, investment management expenses, and custodial fees, of 6.50% per annum.

**Spouse’s Age**

Female spouses are assumed to be 3 years younger than male spouses.

**Marital Status**

For retired members, it is assumed that 80% are married at death.

**Deaths After Retirement**

According to the UP94 Mortality Table projected to 2005. Female mortality rates apply to spousal beneficiaries of deceased members. Representative values are as follows:

<u>Age</u>	<u>Males</u>	<u>Females</u>
25	0.0637%	0.0268%
35	0.0866%	0.0455%
45	0.1470%	0.0876%
55	0.3853%	0.2257%
65	1.3384%	0.8788%
75	3.4264%	2.2330%
85	9.6784%	6.8170%
95	24.5718%	19.5868%
105	44.0585%	41.5180%

**Future Expenses**

Administration expenses, actuarial fees, investment management expenses and custodial fees are paid from the Benefit Fund. The interest rate assumption is net of anticipated administration expenses, actuarial fees, investment management expenses and custodial fees.

**Post-Retirement Indexation**

No provision has been made for future post-retirement adjustments in the liabilities. Post-retirement adjustments granted up to and including 2006 have been included in the liabilities.

Future post-retirement adjustments based on 100% CPI (Consumer Price Index) indexation were projected and valued to increase actuarial liabilities for the purpose of determining excess surplus and eligible contributions under Section 147.2(2) of the Income Tax Act. The increase in CPI is assumed to be 3.0% per annum.

**Liabilities Valuation Method**

Unit Credit Method. The actuarial value of benefits for retired members and spousal beneficiaries is calculated as the discounted value of their respective benefit payments. There are no active members.

If an actuarial deficiency arises, the City amortizes this deficiency by making special annual payments over certain periods, up to a maximum of 15 years for each deficiency. If an actuarial surplus arises, where allowed under the Plan by-laws, future special payments which have already been established may be reduced or eliminated by application of actuarial surplus. Alternatively, the surplus may be held as a reserve for future enhancements or contributions.

**Asset Valuation Method**

The actuarial value of assets is a 4-year moving-average market value. This method recognizes realized and unrealized investment gains and losses over a period of 4 years.

## **Solvency Valuation Assumptions**

### **Interest Rate**

An interest rate of 4.60% per annum was used to value the solvency liabilities. This rate is appropriate for the December 31, 2006 solvency valuation, and, is in accordance with the Canadian Institute of Actuaries guidelines for solvency valuations.

### **Excluded Benefits**

No future post-retirement adjustments have been included in the solvency liabilities. Ad hoc post-retirement adjustments granted through 2006 have been included in the liabilities. Since post-retirement adjustments are ad hoc, they have not been included in the wind-up liability.

### **Deaths After Retirement**

According to the UP94 projected to 2015 Table.

### **Spouse's Age**

Female spouses are assumed to be 3 years younger than male spouses.

### **Marital Status**

For retired members, it is assumed that 80% are married at death.

### **Liabilities Valuation Method**

Unit Credit Method. The actuarial value of benefits for retired members and spousal beneficiaries is calculated as the discounted value of their respective benefit payments.

### **Asset Valuation Method**

Assets are valued at market value as reported by the custodian for the Benefit Fund.

### **Loading or Contingencies**

None.

### **Expenses**

The solvency liabilities do not include any provision for expenses. An explicit expense assumption of \$100,000 has been used for purposes of the solvency valuation. These expenses reflect the cost of complying with the legislative disclosure requirements on wind up and the administrative expenses associated with purchasing pensions for the retirees from an insurance company. This estimate of expenses does not reflect any expenses due to the determination of surplus and surplus distribution on wind up of the Benefit Fund.

**Appendix "B"**  
**Membership Data**

**Table 1**

The Number and Annual Retirement Pensions  
for Retired Members Distributed by Age  
as of December 31, 2006

<u>Age</u>	<u>Number</u>	<u>Males</u>	<u>Amount</u>
60	6		\$ 272,631.60
61	26		1,013,938.80
62	26		1,072,833.36
63	27		1,122,870.24
64	42		1,711,239.12
65	41		1,437,311.28
66	17		580,402.56
67	19		660,946.80
68	19		625,606.80
69	16		559,347.60
70	39		1,398,379.92
71	35		1,212,867.60
72	51		1,732,549.92
73	51		1,646,067.60
74	56		1,850,992.08
75	41		1,479,183.12
76	17		540,296.88
77	12		448,821.60
78	7		189,051.12
79	9		282,384.96
80	17		549,711.84
81	17		522,312.96
82	17		550,005.12
83	9		291,153.12
84	10		299,669.28
85	18		509,206.56
86	15		429,151.44
87	5		149,272.32
88	-		-
89	1		25,709.28
90	3		87,455.28
91	1		31,010.40
92	<u>1</u>		<u>30,002.64</u>
Total	<u>671</u>		\$ <u>23,312,383.20</u>

Average Age: Male 72.4

**Table 2**

The Number and Annual Retirement Pensions  
for Beneficiaries Distributed by Age  
as of December 31, 2006

<u>Age</u>	<u>Number</u>	<u>Females</u>	<u>Amount</u>
52	1		\$ 18,409.92
53	-		-
54	-		-
55	1		29,635.68
56	1		13,767.36
57	4		97,207.44
58	5		109,517.28
59	4		87,770.16
60	5		106,999.44
61	3		73,443.36
62	3		70,710.48
63	3		66,743.04
64	6		125,493.84
65	4		81,981.12
66	10		193,118.64
67	5		123,792.00
68	7		169,710.07
69	19		399,021.12
70	15		313,875.84
71	12		279,637.44
72	11		226,786.80
73	11		224,038.32
74	16		301,753.44
75	7		143,943.84
76	9		168,592.80
77	13		223,338.48
78	14		234,233.28
79	15		267,848.88
80	24		467,554.56
81	21		345,862.32
82	13		225,659.52
83	14		264,854.16
84	5		65,506.08
85	8		167,835.36

**Table 2**  
The Number and Annual Retirement Pensions  
for Beneficiaries Distributed by Age  
as of December 31, 2006

(continued)

<u>Age</u>	<u>Number</u>	<u>Females</u>	<u>Amount</u>
86	14		\$ 255,211.68
87	8		127,090.32
88	3		51,697.68
89	7		120,027.12
90	4		49,753.20
91	6		72,324.72
92	1		15,924.96
93	1		17,707.44
94	1		16,208.16
95	1		11,108.64
96	1		11,108.64
97	1		11,108.64
98	-		-
99	-		-
100	<u>1</u>		<u>11,983.20</u>
Total	<u>338</u>		<u>\$ 6,459,896.47</u>
Average Age	Female	76.5	

<b>Appendix “C”</b> <b>Summary of Main Benefit and Contribution Provisions</b>
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**Covered Members**

All members of the Fire Department except those who became members after May 8, 1961, at an age in excess of 26 years, or after July 1, 1968.

**Normal Retirement Date**

Age 65.

**Employee Contributions**

Effective January 1, 1998, members with less than 35 years of service contribute to the Plan at the rate of 5.5% of their salary less their contributions to the Canada Pension Plan. Prior to January 1, 1998, the contribution rate was 7.5% of salary less contributions to the Canada Pension Plan.

**Employer Contributions**

The City contributions are an amount equal to member contributions to the Plan, plus any additional special payments in respect of past service as specified by the by-laws.

**Retirement Pension**

On completion of 30 or more years of continuous service, an annual pension equal to 2% of the member's average annual earnings during the 60 consecutive months which produce the highest average, multiplied by his credited service up to 35 years; less a CPP offset equal to 0.7% of the lesser of such average earnings and the average of the YMPE at retirement and the 2 preceding years multiplied by his credited service after January 1, 1966. The CPP offset commences when the member attains age 65.

**Minimum Pension**

Member's annual pension shall not be less than \$13,600.

**Early Retirement**

An unreduced pension is payable on retirement after 30 years of service or on retirement due to being worn out in the service of the Fire Department after 25 years of service but before 30 years. For retirement due to any reason, a reduced pension is payable after 25 years of service or attainment of age 55.

Effective January 1, 1998, subject to annual review over a 5-year window period, members with 30 years of service can retire with an unreduced pension, regardless of age.



**Disability Pension**

A pension equivalent to the pension the member would have received had he retired with 30 years of service (subject to any limits which are imposed by Canada Revenue Agency legislation) is payable to those members who retire on disability from injuries received in the lawful execution of duty.

**Form of Pension**

For members without a spouse, the normal form is a pension payable for life.

For members with a spouse, the normal form is a joint annuity with  $66\frac{2}{3}\%$  of the member's pension continuing to the spouse following the death of the member.

The sum of pension payments (including any spouse pension) in any event must be at least equal to what the member's entitlement would have been had he died in service immediately before the commencement of his pension.

**Death Benefits Before Retirement**

A pension equal to  $66\frac{2}{3}\%$  of the pension accrued to the date of the member's death will be paid to the spouse if the death of the member is:

- (a) due to accidental injuries received while on duty, or
- (b) after 25 years of service.

If no spouse's pension is payable, the member's beneficiary will receive an amount equal to the greater of:

- (c) the member's contributions with interest plus \$100 for each year of service, subject to a minimum of \$3,500, and
- (d) the commuted value of the member's benefit accrued after December 31, 1986 plus the member's contributions made prior to January 1, 1987 with interest.

**Termination of Employment***For Benefits Accrued Prior to January 1, 1987*

On termination of service before retirement but after age 45 and 10 years of service, a retirement pension will be payable at age 65, determined the same as for normal retirement but based on service before January 1, 1987.

*For Benefits Accrued After January 1, 1987*

On termination of service before retirement but after 2 years of credited service, a retirement pension will be payable at age 65, determined the same as for normal retirement but based on service after January 1, 1987.

*Refunds on Termination*

Members' contributions in respect of pension not vested are refunded with interest.

**Credited Interest**

The interest rate credited on employee contributions is established by the Pension Committee. Interest credited on and after January 1, 1988 shall be at least equal to the rate prescribed under the Ontario Pension Benefits Act.

**Maximum Cost to Member**

Effective January 1, 1988, in the event of the earliest of a member's retirement, termination of employment, termination of membership or death after completion of 24 months of Plan membership, in respect of service after January 1, 1987, the member's contributions with interest shall not provide for more than 50% of the commuted value of the retirement allowance to which the member or his surviving spouse, if applicable, is entitled under the Plan. The member's contributions with interest in excess of 50% of the commuted value of such retirement allowance shall be refunded to the member or spouse, if applicable.

**Ad Hoc Post-Retirement Adjustments**

Commencing 1986, City Council adopted a policy of providing ad hoc increases in pensions to pensioners based upon an excess interest indexing methodology. Subject to City Council approval, each year, ad hoc increases in pension were provided, with a minimum increase of 50% of the increase in the Consumer Price Index (CPI) on a year over year basis, and a maximum increase of the lesser of the excess investment return on the Benefit Fund and 100% CPI.

Commencing 1997, the Plan by-laws were amended to provide for future increases to pensioners including spouses of deceased retired members, based on the lesser of:

- (a) the investment rate of return of Fund assets (using a 5-year smoothing technique) in excess of the rate of return required to maintain the actuarial solvency of the Benefit Fund as determined by the actuary, and
- (b) the increase in the year over year level of the average CPI,

to the extent that actuarial surplus is available.

<b>Appendix “D” Statement of Actuary’s Opinion</b>
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1. In my opinion, the data on which the valuation is based are sufficient and reliable for the purposes of the valuation.
  
2. In my opinion, the assumptions are, in aggregate, appropriate for the purposes of:
  - (a) estimating the ongoing financial condition of the Plan;
  - (b) estimating the City contribution requirements for 2007;
  - (c) reviewing the solvency of the Plan;
  - (d) determining the need for any special payments to amortize any solvency deficiency;
  - (e) comparing the actual and expected experience under the Plan and reconciling the change in the ongoing funded status of the Plan; and
  - (f) providing supplementary information to support government filings.
  
3. In my opinion, the methods employed in the valuation are appropriate for the purposes of:
  - (a) estimating the ongoing financial condition of the Plan;
  - (b) estimating the City contribution requirements for 2007;
  - (c) reviewing the solvency of the Plan;
  - (d) determining the need for any special payments to amortize any solvency deficiency;
  - (e) comparing the actual and expected experience under the Plan and reconciling the change in the ongoing funded status of the Plan; and
  - (f) providing supplementary information to support government filings.

4. This report has been prepared, and my opinion given, in accordance with accepted actuarial practice.
5. In my opinion, the value of the Plan assets would be greater than the actuarial liabilities if the Plan were to be wound up on the valuation date.



Cynthia L. Rynne  
Fellow, Society of Actuaries  
Fellow, Canadian Institute of Actuaries

Date

April 12, 2007

**Appendix "E"**  
**Actuarial Cost Certificate on the**  
**Toronto Fire Department Superannuation and Benefit Fund**  
**As at December 31, 2006**

**Registration #: 0351601**

Based on a valuation of the Plan as of December 31, 2006, I hereby certify that:

1. There are no longer any active members in the Plan, and therefore, no member required contributions.
2. There are no longer any matching contributions required to be made by the City to the Plan.
3. There are no longer any special payments required by the City to amortize previously established unfunded actuarial liabilities.
4. The amount of the invested pension fund assets on December 31, 2006 is \$362,577,845 at market value and \$327,989,585 at actuarial value.
5. The actuarial surplus under the Plan is \$57,287,000 as of December 31, 2006 under the going-concern valuation.
6. There is no excess surplus as of December 31, 2006 as defined in Section 147.2(2)(d) of the Income Tax Act.
7. There is no solvency deficiency under the Plan as of December 31, 2006.
8. The pre-1990 past service benefit restriction contained in subsection 8504(6) of the Income Tax Regulations does not apply to any member of this Plan.
9. This report and cost certificate have been prepared and this opinion has been given in accordance with accepted actuarial practice and the Recommendations of the Canadian Institute of Actuaries, and the report and cost certificate, in my opinion, are consistent with the valuation requirements under the Pension Benefits Act, R.S.O. 1990 and Regulations thereunder and are in compliance with the requirements outlined in subparagraphs 147.2(2)(a)(iii) and (iv) of the Income Tax Act.



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Cynthia L. Rynne  
Fellow, Society of Actuaries  
Fellow, Canadian Institute of Actuaries

\_\_\_\_\_  
April 12, 2007

Date