April 2007

METROPOLITAN TORONTO PENSION PLAN

Report on the Actuarial Valuation for Funding Purposes as at December 31, 2006

MERCER
Human Resource Consulting

Marsh & McLennan Companies

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Summary of Results

Asset Values	**31.12.2006**	**31.12.2005**
Market value of assets	$740,266,000	$732,883,000
Rate of return during the year, based on market values (net of investment expenses)	9.80%	8.52%
Actuarial value of assets	$707,665,000	$711,097,000
Rate of return during the year, based on actuarial values (net of investment expenses)	8.52%	4.20%

Going-Concern Financial Position	**31.12.2006**	**31.12.2005**
Actuarial value of assets	$707,665,000	$711,097,000
Actuarial liability	(569,214,000)	(598,745,000)
Funding excess	$138,451,000	$112,352,000

Wind-Up Financial Position	**31.12.2006**	**31.12.2005**
Market value of assets (net of estimated Plan termination expenses)	$739,776,000	$732,376,000
Wind-Up liability	(608,878,000)	(653,337,000)
Wind-Up excess (deficiency)	$ 130,898,000	$ 79,039,000
Transfer ratio	1.00	1.00

Solvency Financial Position	**31.12.2006**	**31.12.2005**
Solvency assets	$ 739,776,000	$ 732,376,000
Solvency asset adjustment	(34,450,000)	0
Solvency liability	(608,878,000)	(653,337,000)
Solvency liability adjustment	18,073,000	0
Solvency excess (deficiency)	$ 114,521,000	$ 79,039,000
Indexation Reserve Account (lesser of funding excess and solvency excess at 31.12.2006 and funding excess at 12.31.2005)	$ 114,521,000	$ 112,352,000

Plan Membership	**31.12.2006**	**31.12.2005**
Active	9	9
Suspended or disabled	5	6
Retired members in receipt of pensions	2,168	2,276
Surviving spouses in receipt of pensions	1,066	1,068
Vested deferred pensioners	6	6
Total membership	3,254	3,365

Funding Requirements (annualized)	**2007**	**2006**
Total current service cost	$ 0	$ 0
Estimated member required contributions	(0)	(0)
Employer current service cost	$ 0	$ 0
Minimum special payments	$ 0	$ 0
Estimated minimum Employer contribution	$ 0	$ 0
Estimated maximum Employer contribution	$ 0	$ 0

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Introduction and Executive Summary

Introduction

To: Trustees, Metropolitan Toronto Pension Plan

At your request, we have conducted an actuarial valuation of the Metropolitan Toronto Pension Plan (the "Plan") as at December 31, 2006. The previous actuarial valuation was prepared as at December 31, 2005.

The purpose of this valuation is to determine:

- the funded status of the Plan as at December 31, 2006 on going-concern and solvency bases, and
- the minimum funding requirements by the City of Toronto (the "Employer") and the Plan members during the period from January 1, 2007 through December 31, 2007.

The Report sets out full details of the Plan's financial position on the valuation date, makes recommendations as to the utilization of the experience gains and illustrates the effect of these recommendations on the Plan's funded position.

Executive Summary

Summary of Results

a) Plan Assets

For purposes of the going concern valuation, the assets are valued on a smoothed market value basis.

A description of the asset valuation method is provided in Section 3. There were no changes to the method used to value the Plan's assets.

The assets of the Plan, as reported on financial statements obtained from the custodian, have changed as follows during 2006.

	December 31, 2005	December 31, 2006	Rate of Return in 2006 *
Book Value	$ 622,784,000	$ 627,350,000	11.14%
Market Value	$ 732,883,000	$ 740,266,000	9.80%
Actuarial Value	$ 711,097,000	$ 707,665,000	8.52%

** The rate of return is net of investment expenses.*

The rate of return to be credited to employee contribution balances in 2007 is 8.52%, compared with the rate of 4.20% credited in 2006.

b) Going-Concern Financial Position as at December 31, 2006

On a going-concern basis, the actuarial value of assets of $ 707,665,000 exceeds the actuarial liabilities of $ 569,214,000 by $ 138,451,000. The funding excess has increased from an amount of $ 112,352,000 as at December 31, 2005 to an amount of $ 138,451,000 as at December 31, 2006. This is the result of changes to the method for smoothing the assets, changes in the actuarial assumptions and data update and net experience gains primarily due to the better than expected performance of the assets on an actuarial value basis. Further details can be found in Section 4.

c) Solvency/Wind-up Position as at December 31, 2006

On a solvency basis, the value of the assets of $ 705,326,000 (market value less estimated termination expenses and solvency asset adjustment) exceeds the actuarial liabilities of $ 590,805,000, producing a solvency excess of $ 114,521,000. The previous valuation at December 31, 2005 indicated a solvency excess of $ 79,039,000.

The improvement in the solvency position since the previous valuation is primarily a result of gains resulting from the good investment performance during 2006, partially offset by losses resulting from the introduction of a 4-year smoothing method to determine the solvency assets and liabilities. Further details can be found in Section 6.

On a wind-up basis, the value of the assets of $ 739,776,000 (market value less estimated termination expenses) exceeds the actuarial liabilities of $ 608,878,000, producing a solvency excess of $ 130,898,000. The previous valuation at December 31, 2005 indicated a wind-up excess of $ 79,039,000.

d) Funding Requirements

Since all active members have completed 35 years of credited service at the date of this valuation, there are no member or Employer contribution requirements in 2007 in respect of current service.

Since the Plan is fully funded on both the going-concern and solvency bases, there are no Employer contribution requirements in 2007 in respect of past service.

e) Plan Membership

The membership data received from the Employer for purposes of this valuation include:

- 9 active members, consisting of 1 fire-fighter at age 62.0 years and 2006 pensionable earnings of $ 125,288, and 8 regular members having an average age of 60.8 years and 2006 pensionable earnings totalling $ 523,207.
- 5 disabled and suspended members having an average age of 62.7 years;
- 2,168 retired members having an average age of 76.1 years, in receipt of annual pensions totalling $ 47,377,144;
- 1,066 surviving spouses having an average age of 79.2 years, in receipt of annual pensions totalling $ 12,174,526;
- 6 members who are former employees with vested deferred pension entitlements estimated at $ 14,448 per annum in total, with an average age of 72.9 years.

During 2006, the active membership was unchanged from 9 at the start of the year to 9 at the current valuation date. The number of retired members and surviving beneficiaries receiving pensions from the Plan decreased from 3,344 to 3,234.

During the inter-valuation period, there was 1 new retirement at age 57.4 years.

Reconciliation of these membership changes and further details are included in Appendix B.

Changes in Actuarial Assumptions and Methods

The following changes were made to the going-concern actuarial assumptions from the assumptions used in the previous valuation at December 31, 2005:

- the 12.5% loading (i.e. ratio of 75% spousal pension to 66.67% spousal pension) on the survivor percentage as an allowance for stepped pensions was removed and replaced with a calculation based on the membership data supplied;
- the spousal benefit assumption for pensioners, which assumed 90% married and in receipt of a joint and 2/3 survivor pension and 10% single and in receipt of a lifetime pension with a 5-year guarantee, was removed and instead was based on actual membership data; and
- the pensioner liabilities were loaded by 0.25% as a provision for remarriage.
- the method used to smooth the assets for purposes of determining the actuarial value of assets was changed to incorporate all assets and to base the smoothing for each year on a comparison of actual market value with expected market value rather than expected actuarial value.

These changes in the actuarial assumptions, update of the data and changes in the method for smoothing the assets have decreased the going-concern actuarial liability by $ 9,856,000 and increased the going-concern value of assets by $ 8,208,000. Further details are provided in Section 5.

There have been no other changes made to the going-concern actuarial assumptions and methods from those used in the last actuarial valuation:

A complete description of the going-concern actuarial methods and assumptions is provided in Appendix C.

Changes in By-law Provisions

An increase of 2.23% was granted on pensions, retroactively to January 1, 2006, to pensioners on benefit for more than one year. A proportionate increase of 0.186% for each month of pension payment made in 2005 was granted for pensioners who retired during 2005. The cost of providing this increase was $ 12,771,000, on the going-concern basis or $13,951,000 on the solvency basis.

There have been no other changes to the By-law provisions since the previous valuation as at December 31, 2005.

A summary of the main By-law provisions in effect on the valuation date is provided in Appendix A.

Recommendations

Based on the results of the valuation it is recommended that an increase of 2.01% be granted on pensions, effective January 1, 2007, to pensioners on benefit for more than one year and a proportionate increase of 0.168% for each month of pension payment made in 2006 be granted for pensioners who retired during 2006.

The total estimated cost to provide this increase is $ 11,137,000, on the going-concern basis or $ 11,926,000, on the solvency basis.

The next actuarial valuation of the Plan will be required as at a date not later than December 31, 2009 or as at the date of an earlier amendment to the Plan, in accordance with the minimum requirements of the *Pension Benefits Act (Ontario)*. However, since the Trustees of the Plan have historically required the completion of an actuarial valuation every year, the next actuarial valuation of the Plan is scheduled to occur as at December 31, 2007.

This report will be filed with the Financial Services Commission of Ontario (“FSCO”) and with the Canada Revenue Agency (“CRA”).

Respectfully submitted,

Anil Narale
Fellow of the Canadian Institute of Actuaries
Fellow of the Society of Actuaries

April 10, 2007

Date

Frank Dekeyser
Associate of the Society of Actuaries

April 10, 2007

Date

Metropolitan Toronto Pension Plan
Registration number with the FSCO and with the CRA: 0351577

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Plan Assets

The going-concern assets are recorded at an "Actuarial Value" which is determined as follows:

(1) The market value of total assets at the previous year-end is accumulated, together with the current year's cash flow, with interest at the valuation rate of 5.50%; and

(2) The difference between the accumulation in (1) and the market value of total assets at the valuation date is spread over the current year and the three succeeding years in four equal amounts.

In the previous valuation:

(a) Promissory notes were valued at their discounted present value of maturities using the actuarially determined valuation interest rate;

(b) Short-term investments are valued at Book Value; and

(c) Externally managed assets are valued as described below:

   (i) the adjusted value of the externally managed assets at the previous year end is accumulated together with the current year's cash flow, with interest at the valuation rate of 5.50% per annum; and

   (ii) the difference between the accumulation in (i) and the market value of the externally managed assets on the valuation date is spread over the current year and the three succeeding years in four equal amounts.

This change to the asset valuation method was made to recognize that the prior promissory notes are now paid-up and to bring the smoothing method in line with current common actuarial practice.

The effect of the foregoing is shown below (in $ 000).

Assets of the Pension Fund	Book Value	Market Value	Actuarial Value
I. Cash and Equivalents			
▪ Cash and short-term investments	14,969	14,969	
II. External Management			
▪ Bonds	326,269	336,407	
▪ Canadian equities	166,838	194,367	
▪ Foreign (U.S.) equities	119,660	194,909	
Subtotal	612,767	725,683	
III. Receivables (Payables)	(386)	(386)	
Total Fund at 31.12.2006	627,350	740,266	707,665

Under this adopted asset valuation method, the Plan's investment rate of return in 2006 was equal to 8.52% (net of investment management expenses). After netting out a 2.01% Consumer Price Index (based on a 12 month average to December), the real rate earned was 6.51%.

The currently unrecognized elements of the market value of assets will be taken into account in future years in the following amounts ($ 000).

2007	25% of 2004 gain	1,899	
	25% of 2005 gain	4,207	
	25% of 2006 gain	7,429	13,535
2008	25% of 2005 gain	4,207	
	25% of 2006 gain	7,429	11,636
2009	25% of 2006 gain	7,430	7,430
Total			32,601

The pension fund is held in trust by CIBC Mellon and is invested in accordance with the investment policy by the following investment managers as at December 31, 2006:

Manager	Investments
TD Asset Management (Lancaster)	Bonds
Phillips, Hager & North	Bonds
YMG (Ultravest)	Bonds
Gryphon	Canadian Equities
TD Quantitative Capital	Canadian Equities
State Street	U.S. Equities

Reconciliation of Fund Assets ($ 000)

		Market Value	Actuarial Val
Value at 31.12.2005		732,883	711,097
I. Contributions			
▪ Employee Current Service	0		
▪ Employer Current Service	0	0	0
II. Adjusted Investment Income		69,799	50,776
III. Pensions & Other Benefits			
▪ Pensions for Members	48,755		
▪ Pensions for Widows & Others	12,212		
▪ Death Benefits	0	(60,967)	(60,967)
IV. Actuarial, Legal and Other Fees			
▪ Actuarial Fees	233		
▪ Custodial Fees	65		
▪ Investment Management Fees	1,014		
▪ Other Fees (audit, legal, etc.)	137	(1,449)	(1,449)
Subtotal		740,266	699,457
Change in asset smoothing method			8,208
Value at 31.12.2006		740,266	707,665

Historical Fund Performance

Annual rates of return, net of investment expenses, for the last 9 years are provided below on both a market value and actuarial value bases.

	Year-end Market Value	Market Value Rate of Return	Year-end Actuarial Value	Actuarial Value Rate of Return
2006	$ 740,266,000	9.80%	$ 707,665,000	8.52%
2005	732,883,000	8.52%	711,097,000	4.20%
2004	735,469,000	7.05%	743,769,000	1.63%
2003	748,494,000	9.37%	794,867,000	1.04%
2002	745,915,000	-5.95%	850,667,000	1.79%
2001	859,535,000	-0.16%	899,582,000	7.50%
2000	926,878,000	3.25%	900,371,000	11.67%
1999	965,949,000	9.53%	871,990,000	16.18%
1998	943,011,000	16.45%	810,002,000	17.38%

Historical Updates to Pensions In-Payment

Annual cost-of-living adjustments (COLA) for the last 20 years, applicable to pensions that have been in payment for at least one year on the effective date, are provided below.

Effective Date	COLA Update	Effective Date	COLA Update
July 1, 1987	4.75%	July 1, 1997	2.20%
July 1, 1988	3.00%	July 1, 1998	0.70%
July 1, 1989	5.21%	January 1, 1999	1.00%
July 1, 1990	5.10%	January 1, 2000	2.60%
July 1, 1991	5.00%	January 1, 2001	3.20%
July 1, 1992	3.80%	January 1, 2002	2.50%
July 1, 1993	2.10%	January 1, 2003	2.30%
July 1, 1994	1.70%	January 1, 2004	2.80%
July 1, 1995	0.20%	January 1, 2005	1.83%
July 1, 1996	1.80%	January 1, 2006	2.23%

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Valuation Results – Going-Concern Basis

On the basis of the foregoing, the financial position of the Plan on the going-concern basis as at December 31, 2006, with comparable results from the previous valuation, is summarized below:

Financial Position – Going-Concern Basis

	Dec. 31, 2006 ($ 000)	Dec. 31, 2005 ($ 000)
Assets		
▪ Value of Pension Fund	707,665	711,097
▪ Value of Member and Employer future service contributions	0	0
Total value of assets	707,665	711,097
Liabilities		
▪ Active members		
– Regular members	3,860	3,907
– Fire-fighters	1,047	1,054
Total actives	4,907	4,961
▪ Disabled and suspended members	580	953
▪ Retired members' pensions	457,066	485,845
▪ Spouses and other survivor pensions	97,307	97,349
▪ Vested deferred members	141	135
▪ Reserve for possible surplus distribution to retired members	9,213	9,502
Total actuarial liabilities	569,214	598,745
Funding excess/(unfunded liability)	138,451	112,352

It should be noted that all figures are net of Government Annuity pensions credited to certain members under predecessor pension plans.

Current Service Cost

The estimated value of the benefits that will accrue on behalf of the active members during 2007, and a comparison with the corresponding value for 2006 determined in the prior valuation, is summarized below:

	2007	2006
Estimated Employer current service cost	$ 0	$ 0
Estimated Member required contributions	$ 0	$ 0
Employer current service cost as a percentage of member earnings		
▪ Firefighters	6.5% up to YMPE, 8.0% in excess	6.5% up to YMPE, 8.0% in excess
▪ Other Members	5.5% up to YMPE, 7.0% in excess	5.5% up to YMPE, 7.0% in excess

As at December 31, 2006 all active members had completed 35.0 years of credited service. Therefore, no further contributions for current service are required by the Employer and the Plan members.

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Reconciliation of Going-Concern Financial Position

As the foregoing actuarial balance sheet indicates, the Plan has a funding excess aggregating $ 138,451,000 on the valuation date. The analysis of change in the funding excess during 2006 is as follows.

	($ 000)	($ 000)
Funding Excess at December 31, 2005		112,352
COLA increase at 1/1/2006	(12,771)	
Interest on reserve account at 5.50% per year, after COLA	5,477	
Change in asset smoothing method	8,208	
Change in actuarial assumptions and data update	9,856	10,770
Experience gains (losses)		
▪ Investment experience	11,911	
▪ Retirement experience	14	
▪ Mortality experience	2,634	
▪ Wage increases greater (lower) than expected	(51)	
▪ Recalculation of surplus distribution reserve	812	
▪ Miscellaneous gains (losses)	9	15,329
Funding Excess at December 31, 2006		138,451

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Valuation Results – Solvency Basis

When conducting a solvency valuation, we determine the relationship between the respective values of the Plan’s assets and its liabilities on a solvency basis, determined in accordance with the *Pension Benefits Act (Ontario)*. The value of the Plan’s assets and liabilities on a solvency basis are related to the corresponding values calculated as though the Plan were wound up and settled on the valuation date.

For this valuation, a four year smoothing method has been applied to determine the solvency assets and liabilities. The previous solvency valuation did not use a smoothing method. Further details are provided in Appendix D.

Financial Position on a Solvency Basis

The Plan's solvency position as at December 31, 2006, in comparison with that of the previous valuation as at December 31, 2005, is determined as follows:

Financial Position – Solvency Basis

	Dec. 31, 2006 ($ 000)	Dec. 31, 2005 ($ 000)
Assets		
Market value of assets	740,266	732,883
Termination expenses	(490)	(507)
Solvency assets	739,776	732,376
Solvency asset adjustment (averaging method)	(34,450) *	0
Total value of assets	705,326	732,376
Actuarial liability		
Present value of accrued benefits for:		
▪ active members	5,207	5,513
▪ disabled and suspended members	667	1,103
▪ retired members	490,165	532,571
▪ survivors	103,471	104,497
▪ vested deferred members	155	151
▪ Reserve for possible surplus distribution to retired members	9,213	9,502
Solvency liabilities	608,878	653,337
Solvency liability adjustment	(18,073)	0
Total actuarial liability	590,805	653,337
Solvency excess/(deficiency)	114,521	79,039
Transfer ratio	1.00	1.00

* *Averaging method adjustment = 75% of investment gains (i.e. above the 5.375% expected) of $22,947,000 from 2006 plus 50% of investment gains of $9,551,000 from 2005 plus 25% of investment gains of $1,952,000 from 2004.*

Payment of Benefits

If the transfer ratio is less than one, the Plan administrator should ensure that the monthly special payments are sufficient to meet the requirements of the Act to allow for the full payment of benefits. Otherwise, the Plan administrator should take the actions prescribed by the Act.

Impact of Plan Wind-Up

In our opinion, the value of the Plan's assets would be greater than its actuarial liabilities if the Plan were to be wound up on the valuation date. Specifically, as at December 31, 2006, the market value of Plan assets of $ 739,776,000 would exceed the actuarial liabilities of $ 608,878,000 by an amount of $ 130,898,000. For purposes of this calculation, the market value of assets includes a provision for termination expenses that might be payable from the pension fund and the liabilities exclude the potential liability for future cost-of-living adjustments to pensions in payment.

Pension Benefits Guarantee Fund (PBGF) Assessment

In accordance with subsection 47(1)(p.14) of the Regulations under the *Pension Benefits Act (Ontario)*, the pension benefits provided by this Plan are not guaranteed by the Pension Benefits Guarantee Fund (PBGF) and are therefore exempt from the filing of PBGF assessment certificate (subsection 18(7) of the Regulations) and payment of an annual PBGF assessment (section 37 of the Regulations).

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Indexation Reserve Account

General

The pension plan that the Plan can be fairly compared with is the Ontario Municipal Employees Retirement System (OMERS). OMERS has adopted automatic indexation. It was, and is, our opinion that the Plan with its closed membership could not afford to undertake automatic indexation but, instead, must use available assets to meet inflationary pressures on a yearly basis.

Therefore, in 1991 a policy was recommended and adopted that:

(a) assets not required to meet specific current pension liabilities be held in an Indexation Reserve Account (IRA);

(b) the IRA be limited to 30% of the going-concern liability for non-indexed benefits;

(c) the IRA be built up to the maximum before any allocation of surplus be considered; and

(d) minor improvements in pension benefits and increases in pensions due to cost-of-living inflation should be limited to the extent that the IRA is sufficient.

Indexation Reserve Account

The change in the Indexation Reserve Account during 2006 is outlined below.

	($ 000)	($ 000)
Indexation Reserve Account at December 31, 2005		**112,325**
January 1, 2006 cost-of-living increases to pensions		(12,771)
Indexation Reserve Account at January 1, 2006		**99,554**
Indexation Reserve Account at December 31, 2006		
a) Going-concern excess (deficiency)	138,451	
b) Solvency excess (deficiency)	114,521	
Indexation Reserve Account (lesser of (a) and (b))		**114,521**
January 1, 2007 recommended cost-of-living increases to pensions		(11,926)
Indexation Reserve Account at January 1, 2007		**102,595**

Note: The Indexation Reserve Account (IRA) is not to exceed 30% of the going-concern liability, or $ 174,105,000.

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Recommendations

Active Members

No improvements are recommended for 2007.

Retired Members

It is recommended that an increase of 2.01% be granted on pensions, effective January 1, 2007, to pensioners on benefit for more than one year and a proportionate increase of 0.168% for each month of pension payment made in 2006 be granted for pensioners who retired during 2006 for which the total estimated cost is $ 11,137,000 on the going-concern basis, or $11,926,000 on the solvency basis. The pension increase schedule is provided below.

Number of Months of payment	Adjustment Percentage
12 or greater	2.010%
11	1.843%
10	1.675%
9	1.508%
8	1.340%
7	1.173%
6	1.005%
5	0.838%
4	0.670%
3	0.503%
2	0.335%
1	0.168%

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Actuarial Opinion

With respect to the Actuarial Valuation as at December 31, 2006
of the Metropolitan Toronto Pension Plan
FSCO and CRA Registration No. 0351577

It is hereby certified that, in our opinion, with respect to the Metropolitan Toronto Pension Plan:

1) since all active members had attained 35 years of pensionable service as at December 31, 2006, current service contributions for 2007, and thereafter, are nil;

2) on a going-concern basis, the Plan was in satisfactory financial condition as at December 31, 2006, having a funding excess of $ 138,451,000;

3) on a solvency basis, the Plan has a solvency excess of $ 114,521,000 as at December 31, 2006;

4) adoption of the recommendations in Section 8 of this Report would still leave the Plan in satisfactory financial condition as at January 1, 2007, with an estimated going-concern funding excess of $ 127,314,000 and an estimated solvency excess of $102,595,000;

5) as at December 31, 2006, the transfer ratio of the Plan is 1.00 and the Prior Year Credit Balance is $ 0; and

6) the Plan benefits are not guaranteed by the Pension Benefits Guarantee Fund and are therefore exempt from the annual filing of the PBGF assessment certificate and payment of any associated fees, in accordance with subsection 47(1)(p.14) of the Regulations under the *Pension Benefits Act (Ontario).*

In our opinion,

- the data on which the valuation is based are sufficient and reliable for the purpose of the valuation.
- the assumptions are, in aggregate, appropriate for the purpose of the valuation.
- the methods employed in the valuation are appropriate for the purpose of the valuation.
- the assets of the Plan would exceed the liabilities if the Plan were to be wound up on the valuation date.

This report has been prepared, and our opinions have been given, in accordance with accepted actuarial practice.

Anil Narale Fellow of the Society of Actuaries Fellow of the Canadian Institute of Actuaries	Frank Dekeyser Associate of the Society of Actuaries
April 10, 2007	April 10, 2007
Date	Date

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Appendix A

By-law Provisions

The following is a summary of the main provisions of the Plan, contained in By-law no. 15-92, which are relevant to the actuarial valuation. For complete details reference should be made to the formal plan document.

Effective Date:	January 1, 1954.
Membership:	Employees of the Employer and predecessor employers who were hired before July 1, 1968.
Normal Retirement:	Regular Members – age 65; and Firefighters – age 60
Early Retirement:	Unreduced pensions when age plus service total 85 or more. Firefighters also have a "30 and out" early retirement clause. The early retirement penalty is 4% per year (5% per year pre-1992). However, for a 5-year period beginning July 1, 1998, the rule of 85 was replaced by 80 and the early retirement penalty was reduced to 2.0% per year.
Disability Retirement:	Permitted, with full accrued pensions, (a) after 10 years service, upon total and permanent disability; or (b) after 20 years service, upon inability of performing current job.

Member Contributions:	5½% of annual pensionable earnings up to the Canada Pension Plan Y.M.P.E., and 7% of higher annual earnings until Credited Service equals or exceeds 35 years. Firefighters must contribute an additional 1% of pensionable earnings. However, for a six-month period beginning July 1, 1998, member contributions were reduced by 2%. Member contributions were entirely eliminated for the years 1999 to 2004. Since all active Members had completed 35 years of pensionable service as at December 31, 2004, there are no further contribution requirements after this date. A refund of contributions previously made by members after completion of 35 years of credited service was made in 2000.
Employer Contributions:	Same as Member contributions.
Normal Retirement Pension:	2% of employee's highest consecutive 5-year average earnings, multiplied by his number of years of service up to a maximum of 35 years, less (after age 65 or total disability) 0.7% of final 3 year average Y.M.P.E., multiplied by number of years of service after 1.1.66, up to a maximum of 35 years. For years of service after 1991, the Canada Revenue Agency limit on pensions per year of service applies.
Minimum Pension at Normal Retirement:	Annual pension of $300 multiplied by credited service (to a maximum of 30 years). Effective from June, 1992.
Spousal Benefits:	66.67% of the deceased member's normal pension.
Orphans' Pensions:	If there is no Spouse, 66.67% of the deceased member's normal pension until youngest orphan reaches 21. If there is a Spouse, an amount per child under age 21 where the total paid to Spouse AND Orphans is not to exceed 100% of the deceased member’s normal pension.
Other Pre-Retirement Death Benefits:	Return of deceased member's pre-1987 contributions plus interest, plus the commuted value of the deceased member’s post-1986 accrued pension, in lieu of the spouse pension.

Minimum Death Benefit: Return of deceased member's contributions plus interest, or pension payable for 60 months certain.

Withdrawal Benefits: Vested pension, or return of terminated member's pre-1987 contributions plus interest plus the commuted value of the member's post-1986 accrued pension.

Employer Cost-Sharing: Upon termination, death or retirement, the member or his beneficiary is entitled to receive the excess, if any, of the member's contributions plus interest over 50% of the commuted value of the pension earned over the same period.

Notes:

(1) All pensions are subject to the maximum limitation imposed by the *Municipal Act* and the *Income Tax Act*.

(2) The Fund is subject to the provisions of the *Pension Benefits Act (Ontario).*

Appendix B

Membership Data

Data as to the membership of the Plan were obtained from the Employer for purposes of this actuarial valuation. These data reflect membership changes up to the end of February (approximately) of the year following the valuation date.

Tests were carried out as to the validity of the data by comparison with the data obtained in the previous valuation, by reconciliation of the membership movement during the inter-valuation period and by performing various data checks to ensure that salaries, pension amounts, dates of birth, and so on are reasonable. The results of these tests were satisfactory.

Membership Reconciliation

A reconciliation of the membership data since the previous valuation is provided below.

	Active Members	Suspended & Disabled Members	Pensioners	Surviving Spouses	Vested Deferred Pensioners
As at 31.12.2005	9	6	2,276	1,068	6
Recovery from disabled	1				
Pension Splits			(1)		
Exits By:					
Retirement	(1)		1		
Death - no spouse			(59)	(51)	
Death - with spouse			(49)	49	
Disabled		(1)			
As at 31.12.2006	9	5	2,168	1,066	6

Membership Summary

Plan membership data are summarised below. For comparison, we have also summarised corresponding data from the previous valuation.

Membership Data

	31.12.2006	31.12.2005
Active Members		
▪ Number	9	9
▪ Average years of pensionable service	35.0	35.0
▪ Average age in years	60.9	59.1
▪ Average earnings in the year	$ 65,061	$ 64,274
▪ Average accumulated contributions	$297,130	$288,155
Disabled & Suspended Members		
▪ Number	5	6
▪ Average years of pensionable service	35.0	35.0
▪ Average age in years	62.7	61.9
▪ Average annual accrued pension	$ 8,261	$ 10,997
Deferred Pensioners		
▪ Number	6	6
▪ Total annual pension	$ 14,448	$ 14,136
▪ Average annual pension	$ 2,408	$ 2,356
▪ Average age in years	72.9	71.9
Pensioners		
▪ Number	2,168	2,276
▪ Total annual lifetime pension	$ 44,978,265	$ 45,716,778
▪ Total annual bridge pension	$ 2,398,879	$ 2,865,603
▪ Average total annual pension	$ 21,853	$ 21,346
▪ Average age in years	76.1	75.4
Spousal Pensioners		
▪ Number	1,066	1,068
▪ Total annual lifetime pension	$ 12,023,173	$ 11,767,245
▪ Total annual bridge pension	$ 151,353	$ 182,881
▪ Average total annual pension	$ 11,421	$ 11,189
▪ Average age in years	79.2	78.6

Note that the pension amounts above are net of Government Annuity pensions credited to certain members under predecessor pension plans.

Active Members

There are currently 9 active members consisting of 1 fire-fighter and 8 regular members. The average age of these members is 60.9 years (62.0 for the fire-fighter and 60.8 for regular members).

The following table provides a further breakdown:

Age Group	No.	Average Pensionable Service	Average Earnings	Average Accumulated Contributions
55 – 59	3	35.0	$ 64,448	$ 304,557
60 – 64	6	35.0	65,367	293,416
Total	9	35.0	$ 65,061	$ 297,130
Males	4	35.0	$ 86,970	$ 367,403
Females	5	35.0	$ 47,534	$ 240,910

Disabled & Suspended Members

There are currently 3 disabled members (3 regular members and 0 firefighters) accruing service under the Plan and 2 members (1 firefighter and 1 regular member) whose benefits are suspended. The disabled members average 62.0 years of age and the suspended members average 63.7 years of age.

The following table provides a further breakdown:

Age Group	No.	Average Annual Deferred Pension
55 – 59	1	$ 13,060
60 – 64	3	9,239
65 & over	1	528
Total	5	$ 8,261
Males	3	$ 6,962
Females	2	$ 13,691

Pensioners and Spouses

There are currently 2,168 pensioners having an average age of 76.1 years, receiving an average annual pension of $ 21,853 and there are 1,066 surviving spouses having an average age of 79.2 years, receiving an average annual pension of $ 11,421. The following table provides a further breakdown.

	PENSIONERS		SURVIVING SPOUSES	
Age Group	**No.**	**Average Pension**	**No.**	**Average Pension**
Under 50			3	$ 12,929
50 – 54			3	23,113
55 – 59	24	$ 33,625	15	16,797
60 – 64	174	35,375	41	14,806
65 – 69	329	24,645	89	12,229
70 – 74	462	22,987	156	13,329
75 – 79	486	19,948	226	11,469
80 – 84	378	19,163	251	11,769
85 – 89	230	16,355	183	9,945
90 – 94	66	11,824	82	7,358
95 & over	19	10,850	17	4,136
Total	2,168	$ 21,853	1,066	$ 11,421
Males	1,725	$ 23,943	40	$ 5,846
Females	443	$ 13,715	1,026	$ 11,638

Deferred Vested Pensioners

There are currently 6 members who are former employees having an average age of 72.9 years, with an average annual deferred pension of $ 2,408. The following table provides a further breakdown.

Age Group	No.	Average Deferred Pension
55 – 59	1	$ 264
60 – 64	2	5,040
65 & over	3	1,368
Total	6	$ 2,408
Males	4	$ 1,176
Females	2	$ 4,872

Plan Participants Split by Employer

The number of Plan participants at December 31, 2006 are split by Participating Employer below.

ER Code	Pensioners	Survivors	Other	Total	Participating Employer Name
1	907	478	12	1,397	Metro Toronto
4	2	1	-	3	Metro Planning Dept
6	3	3	-	6	Metro Toronto Zoo
9	9	-	-	9	Riverdale Hospital
16	-	2	-	2	City of Toronto (Swansea)
18	-	2	-	2	Toronto (Forest Hill) Fire Dept
21	147	58	-	205	North York (Inside Employees)
22	196	132	2	330	North York (Outside Employees)
23	32	14	-	46	North York PLB (Union)
24	13	1	-	14	North York PLB (Non-Union)
26	223	65	1	289	North York Firefighters
31	207	130	-	337	Scarborough
32	7	2	-	9	Scarborough PLB
33	135	40	1	176	Scarborough Firefighters
42	-	1	-	1	Etobicoke (New Toronto PLB)
51	2	3	-	5	York (Weston)
52	6	1	-	7	York (Weston) Firefighters
61	60	51	1	112	East York
62	76	18	-	94	East York Firefighters
63	4	4	-	8	East York Board of Education
64	2	1	-	3	East York (Leaside)
71	13	11	1	25	Toronto &York Roads Commission
80	124	49	2	175	Police (Civilians)
Total	**2,168**	**1,066**	**20**	**3,254**	

Appendix C

Actuarial Methods and Assumptions – Going-Concern Basis

The actuarial value of the benefits under the Plan is based on economic and demographic assumptions. At each valuation, we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise the assumptions if necessary.

In this valuation, we have used the same assumptions as in the previous valuation, except as noted. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations. For this valuation, we have used the following assumptions:

Economic Assumptions

Investment Return

We have assumed that the investment return on the actuarial value of the Plan assets, net of eligible expenses charged to the Plan assets, will average 5.50% per year over the long term.

This is based on an assumed inflation rate of 2.50% per year plus a real rate of return of 3.00% per year.

Discount Rate

We have assumed that the discount rate for determination of the actuarial liabilities will be equal to the investment return assumption of 5.50% per year.

Expenses

We have not included a specific allowance for eligible Plan expenses. Instead, we have assumed that the investment return assumption is net of all eligible Plan expenses.

Increases in Pensionable Earnings

The benefits ultimately paid will depend on each member's final average earnings. To calculate the pension benefits payable upon retirement, death or termination of employment, we have taken the 2006 annualized earnings and assumed that such earnings will increase at 4.50% per year.

This is based on an assumed inflation rate of 2.50% per year, a productivity component of 1.0% per year and a merit and promotional increase component of 1.00% per year.

Increases in the YMPE

Since the benefits under the Plan depend on the average Year's Maximum Pensionable Earnings (YMPE) under the Canada Pension Plan, it is necessary to make an assumption about future increases in the YMPE for this valuation.

It is assumed that the YMPE will increase at the rate of 3.50% per year from its 2007 level of $ 43,700.

Increases in the Maximum Pension Permitted under the Income Tax Act

The *Income Tax Act (Canada)* (ITA) stipulates that the maximum pension that can be provided under a registered pension plan will increase by $ 111 per year from $ 2,000 in 2005 to $ 2,444 in 2009 and, thereafter, increase in accordance with general increases in the average wage. For this Plan the ITA maximum pension limitations apply only to the pension benefits accrued after 1991.

For this valuation, it is assumed that the ITA maximum pension will increase at the rate of 3.50% per year, starting in 2010.

Demographic Assumptions

Retirement Age

Because early retirement pensions are reduced in accordance with a formula, the retirement age of Plan members has an impact on the cost of the Plan benefits. Accordingly, we have assumed that active members will retire at the age of 61 years (58 years for firefighters) or the age at the valuation date, if greater.

Termination of Employment

We have not made an explicit assumption for benefits payable on pre-retirement termination.

Mortality

The actuarial value of the pension depends on the lifetime of the member. We have assumed mortality rates after retirement in accordance with the Uninsured Pensioner Mortality Table for 1994 (UP94), with allowance for future mortality improvements. No mortality assumption was included in the pre-retirement period. According to this table, the life expectancy at age 65 years is 18.7 years for a male and 21.3 years for a female.

Disability

We have not made an implicit assumption for benefits payable on disability retirement.

Spousal Benefit Assumptions

In this valuation, the survivor benefit assumption was removed and replaced with a calculation based on actual data provided and an allowance for remarriage of 0.25% of the pensioner liability.

Subject to the entitlement of the prior spouse, if any, the waiting period specified in the Plan and the requirements under the *Pension Benefits Act (Ontario),* a spouse acquired after retirement date may be entitled to receive the spousal pension. Based on remarriage rates for older adults in Canada, it was estimated that the additional liability as a result of this provision is approximately 0.25% of the pensioner liability.

In the previous valuation, we have assumed that 90% of pensioners are married and in receipt of a joint and survivor pension and that the remaining 10% of pensioners are in receipt of a single life pension with a 5-year guarantee. Female spouses are assumed to be 4 years younger than males.

Assumed Percentage of Members Married

In this valuation, we have assumed that 100% of active members are married. Female spouses are assumed to be 4 years younger than males.

In the previous valuation, we assumed that 90% of active and inactive members were married.

Allowance for Stepped Pensions

Upon the death of a pensioner whose pension has been stepped at retirement, the Plan provides a pension to the spouse whereby the survivor percentage is applied to the post-65 pre-stepped pension rather than the post-65 pension in payment. A stepped pension is a pension that has been increased before age 65 and reduced after age 65 to produce a level pension in anticipation of the OAS pension commencing from age 65.

In this valuation, we have performed a calculation based on the membership data supplied to estimate the spousal pension.

In the previous valuation, we determined the spousal liability for retired members by valuing a joint and 75% survivor form (i.e. at 12.5% load on the normal 66.67% survivor percentage) on the stepped pension amount.

Reserve for Surplus Distribution to Retired Members

We have valued a one-time payment of $ 2,500 to each regular pensioner and surviving spouse and $ 4,500 to each firefighter pensioner and surviving spouse. These figures approximate the annual contribution that would have been made to the Plan, were it not for the contribution holiday, by each active regular member and firefighter member, respectively. This payment was approved by the Trustees in 1999, but has yet to be approved by City Council.

Deviation from Assumptions

Emerging experience differing from the assumptions will result in gains or losses in future actuarial valuations.

Funding Method

The total *actuarial liability* has been determined as the actuarial present value of projected benefits for active, disabled and suspended participants plus the actuarial present value of accrued benefits for current pensioners, spousal pensioners and deferred pensioners. The total *value of assets* has been determined as the actuarial value of invested assets. The difference between the total value of assets and the total actuarial liability is called the *funding excess* or *unfunded liability*, as the case may be. An unfunded liability will be amortized over no more than 15 years through special payments as required under the *Pension Benefits Act (Ontario)*.

The Indexation Reserve Account which is equal to the funding excess, subject to a maximum of 30% of the actuarial liability, is to be used primarily to provide ad hoc pension increases to Members in receipt of pension payments from the Pension Fund.

Differences between actual experience and that expected based upon the set of actuarial assumptions during the period between two actuarial valuation dates will result in experience gains/(losses) which will increase/(decrease) the Indexation Reserve Account and Funding Excess.

Appendix D

Actuarial Methods and Assumptions – Solvency Basis

The value of assets used for determining the financial position of the Plan on the solvency basis includes the solvency assets plus a solvency asset adjustment.

The *solvency assets* are determined as the market value of investments held by the Plan plus any cash balances of the Plan and accrued or receivable income items.

The *solvency asset adjustment* is determined as the amount, positive or negative, by which the value of the solvency assets are adjusted as a result of applying an averaging method that stabilizes short-term fluctuations of the Plan assets.

The value of the liabilities used for determining the financial position of the Plan on the solvency basis includes the solvency liabilities plus a solvency liability adjustment.

To determine the *solvency liability*, we have valued those benefits that would have been paid had the Plan been wound up on the valuation date with all members vested in their accrued benefits.

The *solvency liability adjustment* is determined as the amount, positive or negative, by which the value of the solvency liabilities are adjusted as a result of using a solvency valuation interest rate that is the average of the market interest rates calculated over a period of 4 years (the same period used for the averaging method used to determine the solvency asset adjustment).

The difference between (1) the sum of the solvency assets and solvency asset adjustment and (2) the sum of the solvency liability, solvency liability adjustment and prior year credit balance is called the *solvency excess* or *solvency deficiency*, as the case may be. A solvency deficiency will be amortized over no more than 5 years through special payments as required under the *Pension Benefits Act (Ontario)*.

Since virtually all members have qualified for a retirement pension, we have assumed that all benefits will be settled through the purchase of annuities and have used a valuation interest rate for solvency purposes which, when used with the 1994 Uninsured Pensioners mortality table with mortality projected to 2015 (U94P2015), provides an estimate of group annuity purchase rates for non-indexed pensions.

The Plan provides that the new spouse of a pensioner, whose former spouse at retirement has died or who was without spouse at retirement, is eligible for a survivor pension provided that the new spousal relationship, as defined in the Plan, has been in effect for a minimum of 5 years. In order to make allowance for the possible increase in future liabilities on remarriage of a pensioner, we have loaded the pensioner liabilities by 0.25% as an allowance for remarriage.

The allowance for stepped pensions (as described below) has been removed and replaced with a calculation based on the membership data supplied.

In the previous valuation,

- no smoothing method was used to determine the solvency value of assets and liabilities;
- there was an allowance for stepped pensions whereby we valued a joint and 75% survivor form of pension (i.e. a 12.5% load on the normal 66.67% survivor percentage) on the stepped amount.

It should be noted that we have excluded from our calculations any potential liability for future cost-of-living increases provided under the Plan.

Assumptions for determination of the solvency and wind-up liability are as follows:

Actuarial Assumptions

Mortality rates:	U94P2015
Interest rate for benefits to be settled through annuity purchase:	4.60% per year
Family composition:	Same as for going concern valuation
Termination expenses:	$ 490,000 (based on $ 150 per pensioner/survivor and $ 250 per active/suspended/deferred vested)

Assumptions for determination of the solvency liability adjustment are as follows:

Actuarial Assumptions

Mortality rates:	U94P2015
Interest rate for benefits to be settled through annuity purchase:	5.00%
Family composition:	Same as for going concern valuation

We have used an average of the annuity proxy rates as at December 31, 2003 (5.50%* per year), December 31, 2004 (5.25% per year), December 31, 2005 (4.50% per year) and December 31, 2006 (4.60% per year) which produces a rate of 5.00% per year.

* Note that the annuity proxy rate for use with the GAM83 mortality table of 5.25% at December 31, 2003 has been adjusted upward by 0.25% to produce annuity proxy rate of 5.50% for use with the UP94P2015 mortality table.

Appendix E

Employer Certification

With respect to the report on the actuarial valuation of the *Metropolitan Toronto Pension Plan*, as at December 31, 2006, I hereby certify that, to the best of my knowledge and belief:

- a copy of the official Plan documents, and of all amendments made up to the date of the valuation, were provided to the actuary;
- the membership and financial data provided to the actuary for the purposes of this valuation are accurate and complete;
- the membership data provided to the actuary include a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to the date of the valuation, and
- all events subsequent to December 31, 2006 that may have an impact on the results of the valuation have been communicated to the actuary.

Date

Signed

Name

Title

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