EX30.3
Appendix 4

2018 Development Charges Background Study

Report For Public Consultation

HEMSON Consulting Ltd.

January 9, 2018

Table of Contents

Executive Summary **1**

I Purpose of 2018 Development Charges Background Study **7**

A. Introduction and Background 7
B. Legislative Context 8
C. Key Steps In Determining DCs for Future Development-Related Projects 8
D. Proposed Methodolody Aligns Development-Related Costs And Benefits 13
E. Operating and Capital Cost Impacts and Asset Management Plan Legislative Requirements 13
F. Transit Services Specific Requirements 14
G. City-Wide Development Charges Are Calculated 15

II Development Forecast & Transit Ridership Forecast **17**

A. Applicable Planning Horizons and Benefitting Periods 17
B. Residential and Non-Residential Development Forecast 17
C. Assessment of Ridership Forecast 20

III Summary Of Historical Service Levels For Applicable Services **22**

IV The Development-Related Capital Forecast and Planned Level of Service for Transit Services **24**

A. A Development-Related Capital Forecast Is Provided For Council's Approval 24
B. Planned Level of Service for Transit 25
C. The Development-Related Capital Forecast for All City Services 25

V Calculated Development Charges **29**

A. Total DC Recoverable Share of The Net Capital Forecast 29
B. Adjusted Rates for City-Wide Residential and Non-Residential DCs 34
C. Proposed City-Wide Residential and Non-Residential DCs 34
D. Comparison of Proposed and Existing DCs 38

VI Cost of Growth Analysis **41**

A. Asset Management Plan 41
B. Long-Term Capital and Operating Impacts 45

VII Development Charges Administration & Policy Considerations **47**

A. Development Charges Consultation And Approval Process 47
B. City-Wide Vs. Area-Specific Charges 47
C. Other Policy Considerations 51
D. Economic Impact of Development Charges 51
E. Summary of Recommendations 58

List of Appendices

A.1 Growth Forecast 61
A.2 Ridership Forecast 89
B.1 Spadina Subway Extension 98
B.2 Transit (Balance) 107
C.1 Roads And Related 122
C.2 Water 141
C.3 Sanitary Sewer (Wastewater) 154
C.4 Storm Water 177
D.1 Parks And Recreation 187
D.2 Library 220
D.3 Shelter 241
D.4 Subsidized Housing 251
D.5 Police 262
D.6 Fire 278
D.7 Paramedic Services 296
D.8 Development-Related Studies 312
D.9 Civic Improvements 320
D.10 Child Care 331
D.11 Public Health 342
D.12 Pedestrian Infrastructure 354
E. Reserve Funds 363
F. Cost Of Growth Analysis - Transit 366
G. Cost Of Growth Analysis – All Services Excld. Transit 383
H. Proposed Development Charges By-Law (Provided Under Separate Cover) 393

Executive Summary

A. Purpose Of 2018 Development Charges (DC) Background Study

1. Legislative Context

This City of Toronto 2018 Development Charges (DC) Background Study is presented as part of the process to lead to the approval of a new DC by-law in compliance with the Development Charges Act, 1997 (DCA). The study is prepared in accordance with the DCA and associated Regulations, including the amendments that came into force on January 1, 2016.

2. Key Steps in Determining Future Development-Related Projects

In accordance with the DCA and associated regulation, several key steps are required to calculate development charges. This includes preparing a development forecast, establishing historical service levels, determining the increase needs for services arising from development and appropriate shares of costs, attribution to development types (i.e. residential and non-residential) and the final adjustment to the calculated rate of a cash flow analysis.

3. DC Eligible and In-Eligible Costs

Development charges are intended to be pay for the initial round of capital costs needed to service new development over an identified planning period. This is based on the overlaying principle that “growth pays for growth”. However, the DCA and associated regulation includes several statutory adjustments and deductions that prevent these costs from fully being recovered by growth. Such adjustments include, but are not limited to: ineligible costs, including operating and maintenance costs; ineligible services, including, tourism facilities, parkland acquisition, etc.; statutory ten per cent discount for “soft” or general services; deductions for costs that exceed historical service level caps; and statutory exemptions for specific uses (i.e. industrial expansions).

4. The Development-Related Capital Forecast is Subject to Change

It is recommended that Council adopt the development-related capital forecast developed for the purposes of the 2018 DC Background Study. However, it is recognized that the DC Study is a point-in-time analysis and there may be changes to project timing, scope and costs through the City’s normal annual budget process.

B. Development Forecast

1. Residential and Non-Residential

The table below provides a summary of the anticipated residential and non-residential growth over the 2018-2027 and 2028-2041 planning periods. The development forecast is further discussed in Appendix A.1.

Growth Forecast	2018 Estimate (Jan. 1)	Planning Period 2018 - 2027		Planning Period 2028 - 2041	
		Growth	Year-End 2027	Growth	Total at 2041
Residential					
Total Occupied Dwellings	1,133,048	151,120	1,284,168	162,794	1,446,962
Total Permits Issued		138,970		288,360	
Total Population					
Census	2,765,679	252,955	3,018,634	274,248	3,292,882
Population In New Units - Permits Issued		*252,790*		*286,166*	
Non-Residential					
Employment	*1,616,300*	103,350	*1,719,650*	105,850	1,825,500
Employment in New Space		*140,200*		*152,800*	
Non-Residential Building Space (sq.m.)		*4,834,000*		*5,119,000*	

2. Transit Ridership

For the purposes of the Transit services development charges calculation, a ridership forecast for the 2011 to 2041 planning period was completed. The ridership forecast represents an increase in AM peak period person trips. The ridership forecast is further discussed in Appendix A.2.

Allocation of Ridership Forecast

Year	AM Peak Period Ridership	% of Allocation
2011-2018	52,073	28 per cent
2018-2027	49,307	27 per cent
2028-2041	81,640	45 per cent
Total	**183,020**	**100 per cent**

C. Calculated Development Charges

The table below provides the city-wide development charges for residential and non-residential development based on the aforementioned forecasts.

Service	Residential Charge By Unit Type					
	Singles & Semis	Multiples 2+ Bedrooms	Multiples 1 Bed and Bach.	Apartments 2+ Bedrooms	Apartments 1 Bed and Bach.	Dwelling Room
Subtotal Transit (1)	$31,069	$25,680	$12,882	$18,186	$11,872	$8,420
Subtotal General Services	$23,538	$19,455	$9,760	$13,779	$8,994	$6,380
Subtotal Engineered Services	$33,784	$27,923	$14,008	$19,775	$12,909	$9,154
TOTAL CHARGE PER UNIT	**$88,391**	**$73,058**	**$36,650**	**$51,740**	**$33,775**	**$23,954**

(1) Includes Transit and Spadina Subway Extension

Service	Non-Residential Charge By Type	
	Industrial	Non-Industrial
Subtotal Transit (1)	$83.16	$195.60
Subtotal General Services	$14.93	$35.16
Subtotal Engineered Services	$92.80	$218.28
TOTAL CHARGE PER SQUARE METRE	**$190.89**	**$449.04**

(1) Includes Transit and Spadina Subway Extension

D. Cost of Growth Analysis

On overview of the long-term capital and operating costs as well as the asset management-related annual provisions for the capital facilities and infrastructure to be included in the DC by-law is provided in the study. This examination is required as one of the provisions of the Development Charges Act. Additional details on the cost of growth analysis, including asset management analysis, for Transit services is included in Appendix F. The analysis for all other services is included in Appendix G.

1. Transit Services

The City of Toronto evaluates the fiscal impacts of capital works including an examination of the full range of costs – initial capital, operating and the long-term repair, maintenance and replacement of infrastructure. A detailed analysis of the asset management and financial strategies for the various asset groups is described in detail in Appendix F.

The analysis concludes that the asset management plan analysis demonstrates that the City can afford to invest and operate transit infrastructure over the ten-year and long-term planning period. Importantly, the City's ongoing asset management and long-term financial planning practices will ensure that the projects included in the 2018 DC Background Study are financially sustainable over their full life cycle.

2. All Other Services

The calculated annual provisions identified are considered to be financially sustainable as it is expected that the increased capital asset management requirements can be absorbed by the tax and user base over the long-term.

Appendix G summarizes the following:

- Estimated increase in net operating costs (these estimates are derived from the 2017 Capital Budget;
- Breakdown of the increased operating costs by service;
- The components of the development-related capital program that will require funding from non-DC sources; and
- Breakdown of the non-DC financing requirements by service.

E. Development Charges Administration & Policy Considerations

1. Consultation and Approval Process

The consultation process includes dialogue with industry stakeholders regarding the development of the calculated rates, and two public consultation sessions to be held in January 2018 following the release of the 2018 DC Background Study. In addition, as per the requirements of the legislation, the statutory public meeting will be held on January 24, 2018 at City Hall in the City of Toronto.

Following the statutory consultation, the calculations will continue to be reviewed and necessary adjustments to the development charge rates and policies will be made. These adjustments will be incorporated into the finalized amended Development Charges By-law and will be provided to Council for its formal approval, expected in late March 2018.

2. City-wide vs Area-Specific DCs

In accordance with the Development Charges Act, Council must give consideration to the use of area rating, also known as area-specific development charges, as part of the DC Background Study. The DC Background Study includes an examination of the appropriateness of implementing area-specific development charges for the various City services. The Development Charges Act permits the City to designate, in its Development Charges By-law(s), the areas within which the development

charges shall be imposed. The City's current practice is to calculate and levy DCs on a City-wide uniform basis.

3. Statutory and Non-Statutory Policy Considerations

The statutory and non-statutory policies currently identified in the City's existing DC By-law are proposed to be brought forward as part of the proposed 2018 Development Charges By-law with some modifications. For example, the City is considering:

- Replacing the current uniform non-residential rate with a differentiated industrial and non-industrial rate category;
- The applicability of the charge to University residences (previously exempt);
- The exemption through the City's Imagination, Manufacturing, Innovation and Technology (IMIT) Program;
- Updates to the affordable housing definitions to better align with current Council approved programs.

These policies will be prepared and included in the Draft DC By-law that will be made available under separate cover, two weeks in advance of the statutory public meeting on January 24, 2018.

4. Economic Impact Analysis

The study provides an overview of the economic impacts associated with development charges in the context of the City of Toronto and related markets. The 2004 and 2008 DC Background Studies included an analysis on the consequences of development charges rate increases on the residential and non-residential markets and the City's current financial incentives and programs. In the context of recent work completed for the City of Vancouver by Coriolis, these findings are still considered to be relevant.

5. Summary of Recommendations

The following provides a summary of recommendations relating to the implementation of the new DC By-law:

- That present practices regarding collection of DCs and by-law administration continue to the extent possible, having regard to any requirements of the DCA;

- That under the DCA, the City should codify any rules regarding application of the by-laws and exemptions within the DC by-laws proposed for adoption;

- That the City continue to use front-ending agreements or developer agreements (or services-in-lieu arrangements), whichever are practical and desirable by the development industry and the City;

- That the by-law permit the payment of DCs in cash or through services-in-lieu agreements. The City is not obligated to enter into services-in-lieu agreements;

- That Council adopt the development-related capital forecasts, and the increase in the need for services attributable to the anticipated development, as included in the 2018 DC Background Study, subject to annual review through the City's normal capital budget process.

- That Council intends to undertake the adopted capital forecast to ensure that the increase in need for service will be met.

- That Council determine that the future excess capacity identified in the Development Charges Background Study shall be paid for by the development charges contemplated in the said Development Charges Background Study, or other similar charges.

- That Council give consideration of the use of more than one development charge by-law to reflect different needs for services in different areas, also known as area rating or area-specific DCs, and determined that for the services, and associated infrastructure proposed to be funded by DCs under the DC by-law, that the charges be calculated on either a city-wide or area-specific basis

- That Council adopt the Transit development-related capital program, as included in the DC Background Study, as the "planned level of service", and in doing so, indicate that it intends to ensure that the increase in need for Transit will be met.

- That Council approve the Cost of Growth analysis, including the Asset Management Plan, that deals with all assets whose capital costs are intended to be funded under the development charge by-law and that such assets are considered to be financially sustainable over their full life-cycle.

I Purpose of 2018 Development Charges Background Study

A. Introduction and Background

This City of Toronto 2018 Development Charges (DC) Background Study is presented as part of the process to lead to the approval of a new DC by-laws in compliance with the Development Charges Act, 1997 (DCA).

The DCA and Ontario Regulation 82/98 (O. Reg. 82/98) require that a DC background study be prepared in which DCs are determined with reference to:

- A forecast of the amount, type and location of housing units, population and non-residential development anticipated in the City;
- The average capital service levels provided in the City over the ten-year period immediately preceding the preparation of the background study;
- A review of capital works in progress and anticipated future capital projects, including an analysis of gross expenditures, funding sources, and net expenditures incurred or to be incurred by the City or its local boards to provide for the expected development, including the determination of the growth and non-development-related components of the capital projects; and
- An examination of the long-term capital and operating costs for the capital infrastructure required for each service to which the DC by-law would relate.

The study presents the results of the review which determines the development-related net capital costs attributable to development that is forecast to occur in the community. These development-related net capital costs are then apportioned among various types of development (residential; non-residential) in a manner that reflects the increase in the need for each service attributable to each type of development. The study arrives, therefore, at proposed DCs for various types of development.

The DCA provides for a period of public review and comment regarding the proposed DCs. Following completion of this process in accordance with the

DCA and Council's review of the study and the comments it receives or other information brought to its attention about the proposed charges, it is intended that Council will pass new DCs for the City.

The remainder of the study sets out the information and analysis upon which the proposed DCs are based.

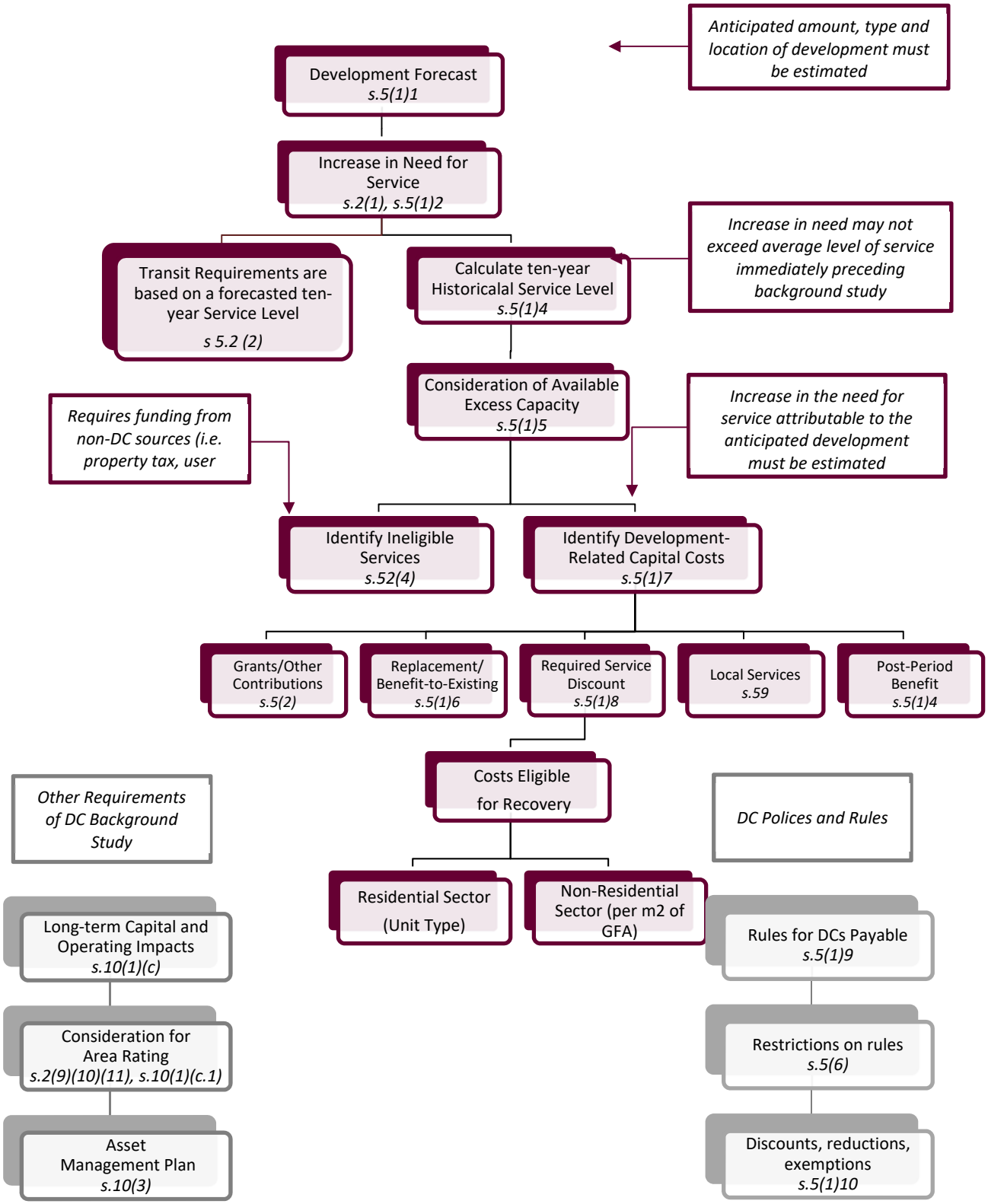
B. Legislative Context

The study is prepared in accordance with the DCA and associated Regulations, including the amendments that came into force on January 1, 2016. Several of these amendments resulted in changes to the calculation methodology used for Transit services including the removal of the ten per cent statutory deduction and the use of a "planned" level of service rather than the "ten-year historical" level of service. In particular, an asset management plan that deals with all assets whose capital costs are proposed to be funded under the Development Charge By-law, and that demonstrates that all such assets mentioned are financially sustainable over their full life cycle, must also be included as part of the background study. The DC background study must also include consideration for the use of area-rated or area-specific development charges.

C. Key Steps In Determining DCs for Future Development-Related Projects

Several key steps are required in calculating DCs for future development-related projects. These are summarized below and shown schematically in Figure 1.

Figure 1: Statutory Requirements of Development Charge Calculation and Study Process



1. Growth Forecast

The first step in the methodology requires a development forecast to be prepared for the ten-year study period, 2018–2027, for general services and transit and the long-term study period, 2018-2041, for the engineered services considered in the study. The forecast of the future residential and non-residential development by location is based on growth anticipated to occur within approved Official Plan-designated urban areas. The residential forecast reflects Official Plan targets, 2016 Census data and recent development activity. The non-residential forecast reflects 2016 Census data, 2016 Toronto Employment Survey data, and recent development activity.

For the residential portion of the forecast, the net population growth and population growth in new building permits issued are estimated. Net population growth equals the population in new housing units reduced by the decline in the population in the existing base anticipated over the ten-year period and to build-out (due to reducing household sizes as the community ages). Net population is used in the calculation of the DC funding envelopes. In calculating the per capita DC, however, the population in new building permits issued units is used.

The non-residential portion of the forecast estimates the gross floor area (GFA) of building space to be developed over the ten-year period, 2018–2027 and the longer-term period from 2018-2041. The forecast provides estimates for three categories: population-related development, major office development, and employment land development. The forecast of GFA is based on the employment forecast for the City. Factors for floor space per worker by category are used to convert the employment forecast into GFA's for the purposes of the DC study.

2. Service Categories and Historical Service Levels

The DCA provides that the increase in the need for service attributable to anticipated development:

> ... must not include an increase that would result in the level of service exceeding the average level of that service provided in the municipality over the ten-year period immediately preceding the preparation of the background study...(s. 5. (1) 4.)

Historical ten-year average service levels thus form the basis for DCs. A review of the City's capital service levels for buildings, land, vehicles, and so on has therefore been prepared as a reference for the calculation so that the portion of future capital projects that may be included in the DC can be determined. The historical service levels used in the study have been calculated based on the 2008–2017 period.

For certain engineered services, namely water, sanitary sewer and storm water management, historical service levels are less applicable and reference is made to the City's engineering standards as well as Provincial health and environmental requirements. In particular, transit services are based on a ten-year "planned" level of service and are not subject to average historical service levels.

3. Development-related Capital program and Analysis of Net Capital Costs to be Included in the DCs

A development-related capital forecast has been prepared based on input from the City's Divisions, Boards and Commissions as part of the present study. The forecast identifies development-related projects and their gross and net costs, after allowing for capital grants, subsidies or other contributions as required by the DCA (s. 5. (2)). The City has received, or is anticipated to receive, upper-level government funding for some projects and furthermore some projects including cost-sharing with the Region of York. For these projects, grants and contributions from other agencies have been netted off the gross project costs thus reducing the City's net capital costs. The capital program provides another cornerstone upon which DCs are based. The DCA requires that the increase in the need for service attributable to the anticipated development may include an increase:

> ... only if the council of the municipality has indicated that it intends to ensure that such an increase in need will be met. (s. 5. (1) 3.)

In conjunction with the DCA, s. 5. (1) 4. referenced above, these sections require that the DC be calculated on the lesser of the historical ten-year average service levels or the service levels embodied in future plans of the City. The development-related capital program prepared for the study ensures that DCs are only imposed to help pay for projects that have been or are intended to be purchased or built in order to accommodate future anticipated development. It is not sufficient in the calculation of DCs merely to have had the service in the past. There must also be a demonstrated commitment to continue to emplace facilities or infrastructure in the future. In this regard, Ontario Regulation 82/98, s. 3 states that:

> For the purposes of paragraph 3 of subsection 5 (1) of the Act, the council of a municipality has indicated that it intends to ensure that an increase in the need for service will be met if the increase in service forms part of an official plan, capital forecast or similar expression of the intention of the council and the plan, forecast or similar expression of the intention of the council has been approved by the council.

For some projects in the development-related capital program, a portion of the project may confer benefits to existing residents. As required by the DCA, s. 5. (1) 6., these portions of projects and their associated net costs are the

funding responsibility of the City from non-DC sources. The amount of City funding for such non-growth shares of projects is also identified as part of the preparation of the development-related capital forecast. A discussion on the methodology for each service is include in the detailed appendices, as identified in the “Replacement and Benefit to Existing Shares” section.

There is also a requirement in the DCA to reduce the applicable DC by the amount of any “uncommitted excess capacity” that is available for a service. Such capacity is available to partially meet the future servicing requirements. Adjustments are made in the analysis to meet this requirement of the DCA.

Finally, in calculating DCs, the development-related net capital costs must be reduced by ten per cent for all services except water, wastewater, storm drainage, services related to highways, protection services and transit (the *DCA*, s. 5. (1) 8.). The ten per cent discount is applied to the other services, e.g. indoor recreation, libraries, shelter, and the resulting City funding responsibility from non-DC sources is identified.

4. Attribution to Types of Development

The next step in the determination of DCs is the allocation of the development-related net capital costs between the residential and the non-residential sectors. This is done by using different apportionments for different services in accordance with the demands which the two sectors would be expected to place on the various services and the different benefits derived from those services.

Where reasonable data exist, the apportionment is based on the expected demand for, and use of, the service by each sector (e.g. shares of population and employment).

Finally, the residential component of the City-wide DC is applied to different housing types on the basis of average occupancy factors. The non-residential component is differentiated and applied on the basis of gross building space in square metres for the industrial and non-industrial sectors.

5. Final Adjustment

The final determination of the DC results from adjustments made to development-related net capital costs for each service and sector resulting from the application of any unallocated development-related reserve fund balances for engineered services that are available to finance the development-related capital costs in the capital forecast. The application of the available reserves are further discussed in Appendix E.

A cash flow analysis is also undertaken to account for the timing of projects and receipt of DCs. Interest earnings or borrowing costs are therefore accounted for in the calculation as allowed under the DCA.

D. Proposed Methodology Aligns Development-Related Costs and Benefits

Several key steps are required in calculating a DC. However, specific circumstances arise in each municipality which must be reflected in the calculation. The approach to the calculated DCs is focused on providing a reasonable alignment of development-related costs with the development that necessitates them. This is achieved through a process that identifies the portion of growth related works that is attributable to the development in the study period, and then further allocates the benefit between residential and non-residential components of growth. The study calculates charges on a City-wide basis which is consistent with the City's current by-law. Despite the fact that DCs are calculated on a City-wide basis, legislation allows a municipality to exempt or reduce rates for specific geographic areas. Furthermore, legislation prevents the recovery of revenue lost due to non-statutory exemptions or reductions from being recovered through increased charges on other areas.

E. Operating and Capital Cost Impacts and Asset Management Plan Legislative Requirements

Section 10 of the Development Charges Act identifies what must be included in a Development Charges Background Study, namely:

> s.10 (2) The development charge background study shall include,
>
> (c) an examination, for each service to which the development charge by-law would relate, of the long term capital and operating costs for capital infrastructure required for the service;
>
> (c.2) an asset management plan prepared in accordance with subsection (3);
>
> Asset management plan
>
> (3) The asset management plan shall,
>
> (a) deal with all assets whose capital costs are proposed to be funded under the development charge by-law;

(b) demonstrate that all the assets mentioned in clause (a) are financially sustainable over their full life cycle;
(c) contain any other information that is prescribed; and
(d) be prepared in a prescribed manner.

The requirement to include an Asset Management Plan (AMP) was part of the Development Charges Act amendments that came into effect on January 1, 2016. A key function of the Asset Management Plan is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life-cycle. For simplicity, the section of the DC Background Study that deals with the operating and capital cost impacts and asset management plan is called the “cost of growth analysis”. Separate cost of growth analysis are prepared for Transit and all other services.

F. Transit Services Specific Requirements

1. Planned Level of Service

As per the new requirements of the Development Charges Act and associated regulation that came into effect on January 1, 2016, Transit services must be treated as a “discrete” service. Generally, it is understood that this provision is intended to preclude combining the Roads and Transit services into a broader "Transportation" DC service.

The Development Charges Act (s.5.2 (3)) requires that in estimating the increase in need for Transit services the increased need “shall not exceed the planned level of service over the 10-year period immediately following the preparation of the background study”.

The definition of planned level of service is not defined in the Act. For the purposes of the development charge calculations, the “planned level of service” is considered the ten-year development-related capital forecast (2018-2027) in the 2018 Development Charges Background Study, as informed by various sources including the City’s current and proposed capital budgets, long range plans, prior DC studies, and staff reports.

In order to meet the requirements of the DCA, it is recommended that Council approve the Background Study and the underlying capital forecast, as an expression that Council intends to ensure that the increase in need in Transit service will be met.

In addition, any background study that incorporates Transit services into the calculation must now include the following:

- An assessment of ridership forecast for all modes of transit and whether ridership is generated from existing or planned development (O.Reg. 82/98 s.8(2)4).

- An assessment of ridership capacity for all modes of transit over the 10-year forecast period (O. Reg. 82/98 s.8(2)4).

2. Asset Management Plan Requirements

In addition to the Asset Management Plan requirements set out in section 10 of the Development Charges Act, the regulations to the Act, Ontario Regulation 82/98, identifies additional direction on the contents of the asset management strategy for transit services, to be addressed in a Development Charges Background Study. This includes an asset management plan as well as an asset and financial strategy. However, it is noted that the Regulations are silent with respect to the AMP requirements for the Background Study for transportation services, or any other services.

G. City-Wide Development Charges Are Calculated

The City provides a wide range of services to the community it serves and has an extensive inventory of facilities, land, infrastructure, vehicles and equipment. The DCA provides municipalities with flexibility to define services that will be included in the DC by-laws, provided that the other provisions of the DCA and its associated regulations are met. The DCA also requires that the by-laws designate the areas within which the by-laws shall be imposed. The DCs may apply to all lands in the municipality or to other designated development areas as specified in the by-laws.

The DCA also requires that consideration be given to the use of area-rated or area specific development charges. This is discussed further in Section VIII. The following services are included in the City-wide DC calculation:

- Spadina Subway Extension
- Transit
- Roads and Related
- Water
- Sanitary Sewer
- Storm Water Management
- Parks and Recreation
- Library
- Subsidized Housing
- Shelter
- Police
- Fire
- Paramedic Services
- Development-Related Studies
- Civic Improvements
- Child Care
- Public Health
- Pedestrian Infrastructure

These services form a reasonable basis on which to plan and administer DCs. It is noted that the analysis of each of these services examines the individual capital facilities and equipment. For example, indoor recreation includes various indoor facilities such as community centres, pools, arenas; associated land requirements as allowed under the DCA and equipment.

The resulting DC for these services would be imposed against all development in the City.

II Development Forecast & Transit Ridership Forecast

A. Applicable Planning Horizons and Benefitting Periods

Development charges for all services identified are based on City-wide forecasts. The DCA requires the City to estimate "the anticipated amount, type and location of development" for which development charges may be imposed. The development forecast must cover both residential and non-residential development and be specific enough with regards to quantum, type, location and timing of development to allow the City to prepare a reasonable development-related capital forecast. A ten-year development forecast, from 2018 to 2027, has been used for the purpose of the general services development charges calculation. For engineered services, a portion of the capital forecast is deemed to benefit growth occurring over a longer planning horizon from 2018 to 2041. It should be noted that the population and employment estimates discussed in the following sections represent calendar year estimates (except for 2041 which is a mid-year end point), therefore the numbers may not match the Census years identified in the detailed tables in Appendix A.1.

B. Residential and Non-Residential Development Forecast

1. Residential Forecast

The forecast approach is structured, in part, as a "top-down" model so that the Toronto forecasts will reflect trends occurring across the economic region, such as recent rises in fertility rates, the continued decline in mortality rates and the current levels of immigration to the region. A number of "bottom-up" factors, however, are also incorporated in the forecasts, the most important of which for the City of Toronto is the nature of the land supply and anticipated future pattern of growth; i.e. most of the City's growth will occur in medium- and high-density development forms. A range of data sources have been used in the forecast, including:

- Projections prepared by City of Toronto staff to 2041, consistent with Schedule 3 of the Growth Plan for the Greater Golden Horseshoe as updated in 2013 under Amendment 2 to the Growth Plan. A new set of projections in which 2016 is the base year, was developed based on recently available 2016 Census information. As a result, the

development forecast prepared for the purposes of the DC Background Study for 2016, 2021 and 2026 do not match the City's projections that were prepared prior to 2016.

- All 2011 Census data for the Greater Toronto and Hamilton Area (GTHA) and Toronto as well as the available information from the 2016 Census, specifically the available population and housing data.
- Statistics Canada building permit data on the value of non-residential permits (as a basis for the forecast of non-residential space growth).
- The City's housing and employment data to the most current available.
- Current CMHC housing data to best estimates of housing unit growth and housing market shares in terms of housing completions, housing starts and units currently under construction.
- City of Toronto development tracking data for historic non-residential building space and construction investment for commercial, institutional and industrial uses.

Table 1 provides a summary of the residential forecast for the ten-year planning period of 2018–2027 and from 2028-2041.

Table 1
Summary of Residential Forecast

Growth Forecast	2018 Estimate (Jan. 1)[1]	Planning Period 2018 - 2027		Planning Period 2028 - 2041	
		Growth	Year-End 2027	Growth	Total at 2041[2]
Residential					
Total Occupied Dwellings	1,133,048	151,120	1,284,168	162,794	1,446,962
Total Permits Issued		138,970		288,360	
Total Population					
Census	2,765,679	252,955	3,018,634	274,248	3,292,882
Population In New Units - Permits Issued		*252,790*		*286,166*	

(1) Calendar year estimate

(2) Mid-year estimate

The City's population is expected to increase by about nine per cent over the next ten years reaching about 3.02 million by 2027. Over the longer planning period to 2041, the population is anticipated to increase by 19 per cent and reach 3.29 million.

The population figures referred to above reflect the “net” increase in population. This is the increase after taking into account the expected continuation of the decline in occupancy factors in existing housing units. The population residing in new housing units based on permits issued is also identified. It is expected that this number will increase by 252,790 people over the ten-year planning period and 538,956 from 2018 to 2041. It is forecast that 151,120 dwelling units will be developed and occupied between 2018 and 2027. Over the longer term planning period from 2018 to 2041, a total of 313,914 units will be constructed.

2. Non-Residential Forecast

Non-residential space is forecast according to three categories: population-related employment, major office employment, and employment land employment. Population-related employment includes traditional retail forms, such as regional centres, district centres, neighbourhood convenience, highway commercial, big box and power centres occupied by retail and local service uses. Population-related employment also includes institutional space consisting of all community institutional uses such as schools, places of worship and hospitals. Major office employment is defined as that contained in free-standing office buildings of 20,000 square feet or greater. Employment land employment consists of buildings in Toronto’s “industrial” areas and may include some non-traditional retail space and office space associated with industrial or storage uses.

For the purposes of the DC calculation, the non-residential sector has been allocated between two distinct categories: industrial and non-industrial. The industrial category includes employees and non-residential GFA associated with employment land employment and non-industrial includes all other categories (i.e. retail and major office).

Because new non-residential space is required primarily to accommodate new employment growth, employment and space are expected to grow at similar rates over the forecast period.

The non-residential space forecast prepared for DC purposes is summarized in Table 2.

Table 2
Summary of Non-Residential Development Forecast

Growth Forecast	2018 Estimate (Jan. 1)[1]	Planning Period 2018 - 2027		Planning Period 2028 - 2041	
		Growth	Year-End 2027	Growth	Total at 2041[2]
Non-Residential					
Employment	*1,616,300*	103,350	*1,719,650*	105,850	1,825,500
Employment in New Space		*140,200*		*152,800*	
Industrial		*7,500*		*7,600*	
Non-Industrial		*132,700*		*145,200*	
Non-Residential Building Space (sq.m.)		*4,834,000*		*5,119,000*	
Industrial		*560,000*		*569,000*	
Non-Industrial		*4,274,000*		*4,550,000*	

(1) Calendar year estimate

(2) Mid-year estimate

Table 2 provides a summary of the employment forecast for the 2018–2027 and 2028-2041 period. Over the next ten years, employment is projected to grow by 103,350 employees, an increase of six per cent. Over the 2018-2041 period, the City is anticipated to grow by 209,200 employees. These are employees that will be accommodated in newly built non-residential building space. Given the dynamic of the City of Toronto non-residential land uses, it is recognized that some existing non-residential building will be demolished and/or redeveloped for other purpose.

The table also shows that about 4.83 million square metres of GFA is forecast to become available over the next decade. The largest share of space (4.27 million square metres or about 88 per cent) that is forecast to be added over the next ten years is anticipated to be in the non-industrial category. The remaining space relates to industrial employment and will add a further 560,000 square metres, or 12 per cent, over the ten-year planning period. Over the longer period to 2041, the City is anticipated to grow by a total of 9.95 million square metre of non-residential GFA.

C. Assessment of Ridership Forecast

The assessment of ridership forecasts for the purposes of the DC Background Study was informed by City Planning ridership model data and discussions with City staff. The current version of the ridership model is state-of-the-art and includes latest generation travel demand and accounts for transit congestion and the overall utility of the system. The utility of the system relates to the ability of riders to actually use the network and whether

congestion will influence their travel behaviours. The model was calibrated using the most recent available regional travel behaviour survey, the “2011 Transportation Tomorrow Survey”, an approach used in most ridership forecasts in the region.

For the purposes of the DC Background Study analysis, Hemson has utilized the outputs from the City’s ridership model data to allocate trips arising from development over the 2011 and 2041 planning period. The interim years from 2011 to 2018 and 2018 to 2027 were attributed based on shares of population and employment growth identified in the DC Background Study development-forecast. Using this assumption, the total ten-year in-period planning trips amounts to 49,310 AM peak period trips. Of the total attributed ridership growth of 183,020 trips from 2011-2041 the additional trips over the 2018-2027 planning period accounts for 27 per cent of total ridership growth. This ridership assessment has been used to inform the benefit to existing, including prior growth, and post-period benefit allocations for the majority of the Transit and Spadina Subway Extension capital projects. These assumptions and the analysis used to support these allocations are discussed further in Appendix A.2.

Table 3
Allocation of Ridership Forecast

Year	AM Peak Period Ridership	% of Allocation
2011-2018	52,073	28 per cent
2018-2027	49,307	27 per cent
2028-2041	81,640	45 per cent
Total	**183,020**	**100 per cent**

III Summary of Historical Service Levels For Applicable Services

The DCA and Ontario Regulation 82/98 require that the DCs be set at a level no higher than the average service level provided in the municipality over the ten-year period immediately preceding the preparation of the background study, on a service-by-service basis. As a result, development charges only, maintain, not exceed, existing service levels as the City develops.

For general services (fire and rescue, library, indoor recreation etc.), the legislative requirement is met by documenting historical service levels for the preceding ten years, in this case, for the period from 2008 to 2017. Typically, service levels for general services are measured as a ratio of inputs per capita (or per population plus employment). With engineered services such as water and sanitary sewer, engineering and legislated environmental and health standards are used in lieu of inputs per capita.

O. Reg. 82/98 requires that when determining historical service levels both quantity and quality of service be taken into consideration. In most cases, the service levels are initially established in quantitative terms. For example, service levels for buildings are presented in terms of square feet per capita. The qualitative aspect is introduced by the consideration of the monetary value of the facility or service. In the case of buildings, for example, the cost would be shown in terms of $/square foot to replace or construct a facility of the same quality. This approach helps to ensure that the development-related capital facilities that are to be charged to new growth reflect not only the quantity (number and size) but also the quality (value or replacement cost) of service provided historically by the City. Both the quantitative and qualitative aspects of service levels used in the present analysis are based on information provided by staff of the City and boards based on historical records and their experience with costs to acquire or construct similar facilities, equipment and infrastructure as of 2017.

Table 4 summarizes service levels for all general City-wide services included in the DC calculation (excluding Transit, Spadina Subway Extension, Water, Sanitary Sewer, and Storm Water Management engineering services). Appendix D provides detailed historical inventory data upon which the calculation of service levels is based.

TABLE 4

CITY OF TORONTO
SUMMARY OF 10-YEAR HISTORICAL SERVICE LEVELS
2008-2017

	Service	Average Service Level	
1	Roads and Related	$3,809.10	/ pop. & emp.
2	Parks and Recreation	$2,984.39	/ capita
3	Library	$867.71	/ capita
4	Subsidized housing	$2,132.88	/ capita
5	Shelter	$292.88	/ capita
6	Police	$609.55	/ pop. & emp.
7	Fire	$370.10	/ pop. & emp.
8	Paramedic Services	$147.39	/ pop. & emp.
9	Child Care	$515.58	/ pop. & emp.
10	Public Health	$29.56	/ pop. & emp.

IV The Development-Related Capital Forecast and Planned Level Of Service For Transit Services

The DCA requires the Council of a municipality to express its intent to provide future capital facilities at the level incorporated in the DC calculation. As noted above in Section II, Ontario Regulation 82/98, s. 3 states that:

> For the purposes of paragraph 3 of subsection 5 (1) of the Act, the council of a municipality has indicated that it intends to ensure that an increase in the need for service will be met if the increase in service forms part of an official plan, capital forecast or similar expression of the intention of the council and the plan, forecast or similar expression of the intention of the council has been approved by the council.

A. A Development-Related Capital Forecast Is Provided For Council's Approval

Based on the growth forecasts summarized in Section III and detailed in Appendix A.1, the Study's development-related capital forecast sets out those projects that are required to service anticipated growth. For all general services including Transit, the capital plan covers the ten-year period from 2018 to 2027. For engineered services both a ten-year planning period from 2018 to 2027 and the longer term planning period from 2018 to 2041 is included. In addition, the capital forecast identifies capital costs expended prior to 2018 that provide capacity to meet the servicing needs of development over the 2018 to 2027 planning period.

For the purposes of the 2018 DC Background Study, 2017 and other pre-2017 expenditures that relate the increase in need for service arising from development of the 2018-2027 planning period have been included in the capital project costs identified in the study.

One of the recommendations contained in the 2018 DC Background Study is for Council to adopt the development-related capital forecast developed for the purposes of the DC calculation. It is assumed that future capital budgets and forecasts will continue to bring forward the development-related projects contained herein that are consistent with the growth occurring in the City. It is acknowledged that changes to the forecast presented here may occur through the City's normal capital budget process.

B. Planned Level of Service for Transit

For Transit, the DCA requires that the estimate in the increase in need for service shall not exceed the planned level of service over the ten-year period immediately following the DC Background Study. For the purposes of the study, the ten-year period for the planned level of service is 2018 to 2027.

For Transit services, the "planned level of service" is considered the City's Council approved development-related capital forecast (2018-2027) contained in the 2018 DC Study, which has been informed by various sources, including the City's current and proposed capital budgets and other long range plans. The proposed recommendation for Council to approve the Transit capital program and the "planned level of service" is discussed in Section VII.

C. The Development-Related Capital Forecast For All City Services

1. Eligible Capital Costs

Eligible capital costs as per s. 5(3) of the DCA include:

- Costs to acquire land or an interest in land, including a leasehold interest
- Costs to improve land
- Costs to acquire, lease, construct or improve buildings and structures
- Costs to acquire, lease, construct or improve facilities including
  - Rolling stock with an estimated useful life of seven years or more
  - Furniture and equipment, other than computer equipment, and
  - Materials acquired for circulation, reference or information purposes by a library board as defined in the Public Libraries Act.
- Costs to undertake studies in connection with any of the matters referred to in paragraphs 1 to 4.
- Costs of the development charge background study required under section 10.
- Interest on money borrowed to pay for costs described in paragraphs 1 to 4. 1997, c. 27, s. 5(3)

A summary of the development-related capital forecast for all services is presented in Table 5.

TABLE 5

CITY OF TORONTO
SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM
CAPITAL PROGRAM BY SERVICE
(in $000s)

	Service	Development-Related Capital Program 2018-2027			
		Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Costs	Share of Net Costs
1	Spadina Subway extension	$3,184,168.5	$2,276,999.9	$907,168.6	4.3%
2	Transit (balance)	$21,484,166.7	$9,988,262.1	$11,495,904.6	54.6%
3	Roads and Related	$2,172,751.2	$376,314.6	$1,796,436.5	8.5%
4	Water	$1,370,338.5	$1,627.3	$1,368,711.2	6.5%
5	Sanitary Sewer	$443,344.9	$24,557.2	$418,787.7	2.0%
6	Storm Water Management	$0.0	$0.0	$0.0	0.0%
7	Parks and Recreation	$3,638,054.7	$483,180.4	$3,154,874.3	15.0%
8	Library	$486,702.0	$2,829.0	$483,873.0	2.3%
9	Shelter	$68,130.2	$0.0	$68,130.2	0.3%
10	Subsidized housing	$755,557.0	$0.0	$755,557.0	3.6%
11	Police	$219,131.0	$0.0	$219,131.0	1.0%
12	Fire	$43,264.4	$0.0	$43,264.4	0.2%
13	Paramedic Services	$151,260.0	$56,250.0	$95,010.0	0.5%
14	Development-related studies	$74,264.2	$21,893.0	$52,371.2	0.2%
15	Civic improvements	$60,533.1	$0.0	$60,533.1	0.3%
16	Child Care	$80,870.0	$0.0	$80,870.0	0.4%
17	Public Health	$800.0	$0.0	$800.0	0.0%
18	Pedestrian Infrastructure	$61,124.6	$365.0	$60,759.6	0.3%
TOTAL		**$34,294,460.9**	**$13,232,278.5**	**$21,062,182.4**	**100.0%**

	Service	Development-Related Capital Program 2018-2041			
		Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Costs	Share of Net Costs
1	Roads and Related	$1,077,274.6	$145,187.9	$932,086.6	11.2%
2	Water	$764,754.2	$106,522.6	$658,231.6	7.9%
3	Sanitary Sewer	$5,754,566.9	$29,478.7	$5,725,088.2	68.8%
4	Storm Water Management	$1,624,972.7	$621,000.0	$1,003,972.6	12.1%
TOTAL		**$9,221,568.3**	**$902,189.2**	**$8,319,379.1**	**100.0%**

TOTAL 2018-2027 and 2018-2041	**$43,516,029.2**	**$14,134,467.8**	**$29,381,561.4**	

2. 2018-2027 Benefitting Period

The table provides a total for all services and covers 2018-2027 period for general services and the longer term period from 2018-2041 for engineered services. Further details on the capital forecasts for each individual service category are available in Appendix B, C and D.

The development-related capital forecast is estimated at a total gross cost of $43,516.03 million. It is anticipated senior government grants, subsidies or other recoveries will total $14,134.47 million, yielding a net cost of $29,381.56 million.

The capital forecast incorporates those projects identified to be related to growth anticipated over the 2018-2027 and 2018-2041 planning periods. It is not implied that all of these costs are to be recovered from new development by way of DCs. Portions of the capital forecast may relate to addressing existing deficiencies and for replacement of existing capital facilities or for growth anticipated to occur beyond the 2018-2027 and 2018-2041 planning periods. In addition, the amounts shown on Table 5 have not been reduced by ten per cent for various “soft” services as mandated by s. 5 (1) 8. of the DCA.

Of the $34,294.46 million in ten-year net development-related capital costs, 17 per cent or $3,583.94 million is for the provision of engineered services. This includes provision for various road related, sanitary sewer and water related works.

Transit services, including Transit and Spadina Subway Extension, account for $12,403.07 million, or 59 per cent, of the net development-related total costs. This includes projects such as Scarborough Subway Extension, Eglinton East Light Rail Transit (LRT), Relief Line South, Waterfront Transit “Reset” and the purchase of various transit rolling stock.

Finally, the other general services accounts for $5,075.17 million, or 24 per cent, and includes the recovery of new park and recreation facilities, additional social housing units, upgrades and improvements to the Toronto Public Library, expansions of Police stations, new child care centres, the continuation of the Places program, the construction of new paramedic stations, new fire stations, a public health clinic, the completion of the north-west underground PATH system, and development-related studies.

3. 2018-2041 Benefitting Period

An additional $8,319.38 million in costs is related to development occurring over the longer planning horizon from 2018-2041. This include costs relating to roads, water, sanitary sewer and storm water management projects.

4. Ineligible Costs

It is not implied that all of these costs are to be recovered from new development by way of DCs. Portions of the capital forecast not recoverable from DCs in the study generally include:

- Operating, capital maintenance and lifecycle costs;
- Capital infrastructure needed to service the existing community that has no benefit to future development;
- Costs addressing existing service deficiencies;
- Costs benefiting growth anticipated to occur beyond the 2018-2027 and 2018-2041 planning periods;
- Ten per cent of various general and “soft” services as mandated by s. 5 (1) 8. of the DCA;
- Capital infrastructure that increase the City's service levels; and
- Ineligible capital costs (e.g. tourism facilities, parkland acquisition, etc.) as determined by the regulations.

V Calculated Development Charges

This section summarizes the calculation of DCs for each service category and the resulting total DC by type of development. For City-wide services, the calculation of the “unadjusted” per capita (residential) and per employee (non-residential) charges is reviewed. Adjustments to these amounts resulting from a cash flow analysis that takes interest earnings and borrowing costs into account are also discussed.

For residential development, the adjusted total per capita amount is then converted to a variable charge by housing unit type using various unit occupancy factors. For non-residential development, the rate per employee is divided by the related floor space per worker (FSW) assumption to arrive at a $/square metre. The non-residential charge is proposed to be differentiated between industrial and non-industrial building space.

It is noted that the calculation of the City-wide DCs does not include any provision for exemptions required under the DCA such as the exemption for enlargements of up to 50 per cent on existing industrial buildings. Such legislated exemptions, or other exemptions which Council may choose to provide, will result in loss of DC revenue for the affected types of development.

A. Total DC Recoverable Share Of The Net Capital Forecast

The capital forecast for the DC-eligible services incorporates those projects identified to be related to growth anticipated over the identified benefitting periods. As engineered services include project with both a ten-year and longer term planning periods, separate tables have been shown for 2018-2027 and 2018-2041 costs.

1. 2018-2027 Benefitting Period

Not all of the capital costs are to be recovered from new development by way of DCs. Table 6 shows that $9,062.70 million of the ten-year capital forecast relates to replacement of existing capital facilities or for shares of projects that provide benefit to the existing community in the 2018-2027 planning period.

TABLE 6

CITY OF TORONTO
SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM
CAPITAL PROGRAM BY SERVICE
(in $000s)

	Service	Development-Related Capital Program 2018-2027						
		Net Project Cost	Replacement & BTE Shares	Required Service Discount	Prior Growth	Available DC Reserves	Post-Period Benefit	Total DC Eligible Costs for Recovery
1	Spadina Subway extension	$907,168.6	$362,255.7	$0.0	$0.0	$0.0	$339,730.5	$205,182.4
2	Transit (balance)	$11,495,904.6	$5,991,239.0	$0.0	$98,503.5	$0.0	$2,893,192.8	$2,512,969.3
3	Roads and Related	$1,796,436.5	$625,727.2	$0.0	$7,506.7	$74,697.8	$25,000.0	$1,063,504.9
4	Water	$1,368,711.2	$844,748.8	$0.0	$0.0	$0.0	$0.0	$523,962.4
5	Sanitary Sewer	$418,787.7	$273,262.6	$0.0	$15,520.0	$0.0	$0.0	$130,005.1
6	Storm Water Management	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
7	Parks and Recreation	$3,154,874.3	$232,470.4	$292,240.4	$5,868.0	$0.0	$1,944,870.0	$679,425.5
8	Library	$483,873.0	$342,612.8	$14,126.0	$0.0	$0.0	$0.0	$127,134.2
9	Shelter	$68,130.2	$600.0	$6,753.0	$0.0	$0.0	$0.0	$60,777.1
10	Subsidized housing	$755,557.0	$228,506.0	$52,705.1	$0.0	$0.0	$0.0	$474,345.9
11	Police	$219,131.0	$119,416.0	$0.0	$0.0	$0.0	$0.0	$99,715.0
12	Fire	$43,264.4	$2,500.0	$0.0	$0.0	$0.0	$0.0	$40,764.4
13	Paramedic Services	$95,010.0	$1,750.0	$9,326.0	$0.0	$0.0	$36,669.7	$47,264.3
14	Development-related studies	$52,371.2	$1,415.0	$5,095.6	$0.0	$0.0	$0.0	$45,860.5
15	Civic improvements	$60,533.1	$4,391.0	$5,614.2	$0.0	$0.0	$27,090.9	$23,437.0
16	Child Care	$80,870.0	$7,046.7	$7,382.3	$0.0	$0.0	$0.0	$66,441.0
17	Public Health	$800.0	$0.0	$80.0	$0.0	$0.0	$0.0	$720.0
18	Pedestrian Infrastructure	$60,759.6	$24,755.0	$3,600.5	$0.0	$0.0	$16,725.5	$15,678.6
TOTAL		**$21,062,182.4**	**$9,062,696.1**	**$396,923.1**	**$127,398.3**	**$74,697.8**	**$5,283,279.5**	**$6,117,187.6**

	Service	Development-Related Capital Program 2018-2041						
		Net Project Cost	Replacement & BTE Shares	Required Service Discount	Prior Growth	Available DC Reserves	Post-Period Benefit	Total DC Eligible Costs for Recovery
1	Roads and Related	$1,077,274.6	$5,896.2	$0.0	$0.0	$0.0	$84,115.7	$987,262.7
2	Water	$658,231.6	$222,855.5	$0.0	$0.0	$111,106.5	$2,857.1	$321,412.6
3	Sanitary Sewer	$5,725,088.2	$4,459,649.6	$0.0	$0.0	$87,741.1	$2,857.1	$1,174,840.4
4	Storm Water Management	$1,003,972.6	$247,554.1	$0.0	$7,200.0	$21,178.9	$30,524.0	$697,515.6
TOTAL		**$8,464,567.0**	**$4,935,955.3**	**$0.0**	**$7,200.0**	**$220,026.6**	**$120,353.9**	**$3,181,031.2**

TOTAL 2018-2027 and 2018-2041	**$29,526,749.4**	**$13,998,651.4**	**$396,923.1**	**$134,598.3**	**$294,724.4**	**$5,403,633.3**	**$9,298,218.8**

This amount relates to shares of projects that are replacing existing facilities, addressing existing deficiencies, and recognized benefit to existing taxpayers, including prior growth. These portions of capital costs will have to be funded from non-DC revenue sources.

An additional share of $5,283.28 million is attributable to growth beyond the 2027 period and is considered committed excess capacity and will be considered for recovery under future development charge studies.

The DCA, s. 5.(1)8., requires that development-related net capital costs for "general" services be reduced by ten per cent in calculating the applicable DC. The discount does not apply to the fire, police, roads, water, sanitary sewer, storm water management services or transit services. The ten per cent share of development-related net capital costs not included in the DC calculation must be funded from non-DC sources. In total, about $396.92 million is identified as the required ten per cent reduction. A further $127.40 million relates to DCs that have been collected and applied to projects and is removed from the DC eligible costs. Finally, $74.70 million is available in the Roads and Related reserve fund and has been removed from the ten year DC eligible project costs. After these adjustments, the discounted net development-related capital cost is $6,117.19 million.

2. 2018-2041 Benefitting Period

Table 6 also identifies the allocation of costs for engineered projects that benefit growth over the longer planning period of 2018-2041. After adjusting for shares of projects that will provide a benefit to the existing community, DCs that have been collected and applied to project costs, available reserve funds and post-period benefit, the total DC eligible cost is reduced to $3,181.03 million.

In total, $9,298.22 million is considered to be DC eligible over the 2018-2027 and 2018-2041 planning periods.

3. Unadjusted Development Charge Calculation

The DC eligible amount is allocated between the residential and non-residential sectors to derive the unadjusted DCs, as shown in Table 7. Parks and Recreation and Library services are all deemed to largely benefit residential development with 95 per cent of the costs allocated to residential development. Subsidized Housing and Shelter has been fully allocated to residential development while Pedestrian Infrastructure is mostly, 80 per cent, allocated to non-residential development. The balance of the ten-year services is allocated 71 per cent to residential and 29 per cent to non-residential sectors based on shares of net population and employment growth (see Appendix B, C and D). Approximately $4,683.68 million of the DC net discounted ten-year capital forecast is deemed to benefit residential

development. When this amount is divided by the ten-year population growth in new permits issued (252,790), an unadjusted charge of $18,527.95 per capita is derived. The non-residential share of the services capital forecast totals $1,433.51 million and when this amount is divided by the ten-year forecast of employees in new space (140,200) an unadjusted charge of $10,224.73 per employee.

Over the 2018-2041 planning period, engineered services are allocated 72 per cent to residential and 28 per cent to non-residential sectors based on shares of net population and employment growth (see Appendix C). Approximately $2,277.35 million of the DC net discounted 2018-2041 capital forecast is deemed to benefit residential development. When this amount is divided by the 23-year population growth in new permits issued (538,956), an unadjusted charge of $4,225.49 per capita is derived. The non-residential share of the capital forecast totals $903.68 million and when this amount is divided by the 23-year forecast of employees in new space (293,000) an unadjusted charge of $3,084.23 per employee.

TABLE 7

CITY OF TORONTO
SUMMARY OF UNADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES

10 Year Population Growth in New Units	252,790
10 Year Employees in New Space	140,200

Service	Total DC 2018-2027 Eligible Costs For Recovery ($000s)	Residential Charge			Non-Residential Unadjusted Charge		
		Share of Eligible Costs		Unadjusted Charge	Share of Eligible Costs		Unadjusted Charge
		%	$000s	$/capita	%	$000s	$/emp
1 Spadina Subway extension	$205,182.4	71.0%	$145,667.1	$576.24	29.0%	$59,515.3	$424.50
2 Transit (balance)	$2,512,969.3	71.0%	$1,784,056.8	$7,057.47	29.0%	$728,912.5	$5,199.09
3 Roads and Related	$1,063,504.9	71.0%	$755,024.4	$2,986.77	29.0%	$308,480.5	$2,200.29
4 Water	$523,962.4	71.0%	$371,981.8	$1,471.51	29.0%	$151,980.7	$1,084.03
5 Sanitary Sewer	$130,005.1	71.0%	$92,295.8	$365.11	29.0%	$37,709.3	$268.97
6 Storm Water Management	$0.0	71.0%	$0.0	$0.00	29.0%	$0.0	$0.00
7 Parks and Recreation	$679,425.5	95.0%	$645,454.2	$2,553.32	5.0%	$33,971.3	$242.31
8 Library	$127,134.2	95.0%	$120,777.5	$477.78	5.0%	$6,356.7	$45.34
9 Shelter	$60,777.1	100.0%	$60,777.1	$240.43	0.0%	$0.0	$0.00
10 Subsidized housing	$474,345.9	100.0%	$474,345.9	$1,876.44	0.0%	$0.0	$0.00
11 Police	$99,715.0	71.0%	$70,791.6	$280.04	29.0%	$28,923.4	$206.30
12 Fire	$40,764.4	71.0%	$28,940.3	$114.48	29.0%	$11,824.1	$84.34
13 Paramedic Services	$47,264.3	71.0%	$33,554.8	$132.74	29.0%	$13,709.5	$97.79
14 Development-related studies	$45,860.5	71.0%	$32,558.2	$128.80	29.0%	$13,302.3	$94.88
15 Civic improvements	$23,437.0	71.0%	$16,638.9	$65.82	29.0%	$6,798.1	$48.49
16 Child Care	$66,441.0	71.0%	$47,169.1	$186.59	29.0%	$19,271.9	$137.46
17 Public Health	$720.0	71.0%	$511.2	$2.02	29.0%	$208.8	$1.49
18 Pedestrian Infrastructure	$15,678.6	20.0%	$3,135.7	$12.40	80.0%	$12,542.9	$89.46
TOTAL	**$6,117,187.6**		**$4,683,680.4**	**$18,527.95**		**$1,433,507.2**	**$10,224.73**

23 Year Population Growth in New Units	538,956
23 Year Employees in New Space	293,000

Service	Total DC 2018-2041 Eligible Costs For Recovery ($000s)	Residential Charge			Non-Residential Unadjusted Charge		
		Share of Eligible Costs		Unadjusted Charge	Share of Eligible Costs		Unadjusted Charge
		%	$000s	$/capita	%	$000s	$/emp
1 Roads and Related	$987,262.7	71.6%	$706,797.6	$1,311.42	28.4%	$280,465.1	$957.22
2 Water	$321,412.6	71.6%	$230,104.6	$426.94	28.4%	$91,308.0	$311.63
3 Sanitary Sewer	$1,174,840.4	71.6%	$841,087.5	$1,560.59	28.4%	$333,752.8	$1,139.09
4 Storm Water Management	$697,515.6	71.6%	$499,362.9	$926.54	28.4%	$198,152.7	$676.29
TOTAL	**$3,181,031.2**		**$2,277,352.5**	**$4,225.49**		**$903,678.7**	**$3,084.23**

TOTAL 2018-2027 & 2018-2041	**$9,298,218.8**		**$6,961,032.9**	**$22,753.44**		**$2,337,185.9**	**$13,308.96**

B. Adjusted Rates For City-Wide Residential And Non-Residential DCs

Final adjustments to the “unadjusted” DC rates summarized above are made through a cash flow analysis. The analysis, details of which are included in the appendices, considers the borrowing cost and interest earnings associated with the timing of expenditures and DC receipts for each service.

Table 8 summarizes the results of the adjustment for the residential and non-residential components of the City-wide rates. As shown in Table 8, the adjusted per rate is $23,953.86 per capita and $14,279.28 per employee after the cash flow analysis.

C. Proposed City-Wide Residential And Non-Residential DCs

Residential City-wide DCs are proposed to vary by dwelling unit type to reflect their different occupancy factors and resulting demand for services. The proposed residential and non-residential DCs for City-wide services are shown in Tables 9 and 10 respectively. As shown in Table 9, the proposed residential charge for DC eligible services ranges from $33,775 for small apartments to $88,391 for single-detached and semi-detached units. The proposed charge for multiples with two bedrooms or more is $73,058 and $36,650 for multiples with less than two bedrooms. Large apartments (two bedrooms are more) are charged $51,740. Finally, the City has a charge for a “dwelling room” which is calculated at $23,954.

The proposed non-residential DC for City-wide services is $14,279.28 per employee. This amount, when divided by the floor space per worker assumption of 74.8 for industrial and 31.8 for non-industrial, results in a charge of $190.89 per square metre of industrial and $449.04 per square metre of non-industrial (see Table 10).

TABLE 8

CITY OF TORONTO
SUMMARY OF ADJUSTED
RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES

Service	Residential Charge		Non-Residential Charge	
	Residential Adjusted Charge $/capita	Percentage of Charge	Non-Residential Adjusted Charge $/emp	Percentage of Charge
Spadina Subway Extension	$720.03	3.0%	$531.09	3.7%
Transit (balance)	$7,699.66	32.1%	$5,689.14	39.8%
Parks and Recreation	$2,795.23	11.7%	$266.08	1.9%
Library	$490.53	2.0%	$46.69	0.3%
Subsidized Housing	$1,874.51	7.8%	$0.00	0.0%
Shelter	$246.60	1.0%	$0.00	0.0%
Police	$290.75	1.2%	$214.85	1.5%
Fire	$120.48	0.5%	$89.02	0.6%
Paramedic Services	$135.02	0.6%	$99.72	0.7%
Development-related Studies	$137.60	0.6%	$101.68	0.7%
Civic Improvements	$65.92	0.3%	$48.70	0.3%
Child Care	$206.66	0.9%	$152.71	1.1%
Health	$2.28	0.0%	$1.69	0.0%
Pedestrian Infrastructure	$13.37	0.1%	$96.76	0.7%
Subtotal General Services	**$14,798.64**	**61.8%**	**$7,338.11**	**51.4%**
Roads and Related	$4,055.47	16.9%	$3,066.07	21.5%
Water	$1,971.45	8.2%	$1,516.02	10.6%
Sanitary Sewer	$2,121.34	8.9%	$1,608.00	11.3%
Storm Water Management	$1,006.96	4.2%	$751.08	5.3%
Subtotal Engineered Services	**$9,155.22**	**38.2%**	**$6,941.17**	**48.6%**
TOTAL CHARGE	**$23,953.86**	**100.0%**	**$14,279.28**	**100.0%**

TABLE 9

CITY OF TORONTO
PRELIMINARY DRAFT CALCULATED CITY-WIDE DEVELOPMENT CHARGES
RESIDENTIAL DEVELOPMENT CHARGES BY UNIT TYPE

Service	Adjusted Charge Per Capita	Residential Charge By Unit Type (1)						Percentage of Charge
		Singles & Semis	Multiples 2+ Bedrooms	Multiples 1 Bed and Bach.	Apartments 2+ Bedrooms	Apartments 1 Bed and Bach.	Dwelling Room	
Spadina Subway Extension	$720.03	$2,657	$2,196	$1,102	$1,555	$1,015	$720	3.0%
Transit (balance)	$7,699.66	$28,412	$23,484	$11,780	$16,631	$10,857	$7,700	32.1%
Parks and Recreation	$2,795.23	$10,314	$8,525	$4,277	$6,038	$3,941	$2,795	11.7%
Library	$490.53	$1,810	$1,496	$751	$1,060	$692	$491	2.0%
Subsidized Housing	$1,874.51	$6,917	$5,717	$2,868	$4,049	$2,643	$1,875	7.8%
Shelter	$246.60	$910	$752	$377	$533	$348	$247	1.0%
Police	$290.75	$1,073	$887	$445	$628	$410	$291	1.2%
Fire	$120.48	$445	$367	$184	$260	$170	$120	0.5%
Paramedic Services	$135.02	$498	$412	$207	$292	$190	$135	0.6%
Development-related Studies	$137.60	$508	$420	$211	$297	$194	$138	0.6%
Civic Improvements	$65.92	$243	$201	$101	$142	$93	$66	0.3%
Child Care	$206.66	$763	$630	$316	$446	$291	$207	0.9%
Health	$2.28	$8	$7	$3	$5	$3	$2	0.0%
Pedestrian Infrastructure	$13.37	$49	$41	$20	$29	$19	$13	0.1%
Subtotal General Services	**$14,798.64**	**$54,607**	**$45,135**	**$22,642**	**$31,965**	**$20,866**	**$14,800**	**61.8%**
Roads and Related	$4,055.47	$14,965	$12,369	$6,205	$8,760	$5,718	$4,055	16.9%
Water	$1,971.45	$7,275	$6,013	$3,016	$4,258	$2,780	$1,971	8.2%
Sanitary Sewer	$2,121.34	$7,828	$6,470	$3,246	$4,582	$2,991	$2,121	8.9%
Storm Water Management	$1,006.96	$3,716	$3,071	$1,541	$2,175	$1,420	$1,007	4.2%
Subtotal Engineered Services	**$9,155.22**	**$33,784**	**$27,923**	**$14,008**	**$19,775**	**$12,909**	**$9,154**	**38.2%**
TOTAL CHARGE PER UNIT	**$23,953.86**	**$88,391**	**$73,058**	**$36,650**	**$51,740**	**$33,775**	**$23,954**	**100.0%**
(1) Based on Persons Per Unit Of:		3.69	3.05	1.53	2.16	1.41	1.00	

TABLE 10

CITY OF TORONTO
PRELIMINARY DRAFT CALCULATED CITY-WIDE DEVELOPMENT CHARGES
NON-RESIDENTIAL DEVELOPMENT CHARGES

Service	Adjusted Charge per Employee	Non-Residential Charge By Type (1)		Percentage of Charge
		Industrial	Non-Industrial	
Spadina Subway Extension	$531.09	$7.10	$16.70	3.7%
Transit (balance)	$5,689.14	$76.06	$178.90	39.8%
Parks and Recreation	$266.08	$3.56	$8.37	1.9%
Library	$46.69	$0.62	$1.47	0.3%
Subsidized Housing	$0.00	$0.00	$0.00	0.0%
Shelter	$0.00	$0.00	$0.00	0.0%
Police	$214.85	$2.87	$6.76	1.5%
Fire	$89.02	$1.19	$2.80	0.6%
Paramedic Services	$99.72	$1.33	$3.14	0.7%
Development-related Studies	$101.68	$1.36	$3.20	0.7%
Civic Improvements	$48.70	$0.65	$1.53	0.3%
Child Care	$152.71	$2.04	$4.80	1.1%
Health	$1.69	$0.02	$0.05	0.0%
Pedestrian Infrastructure	$96.76	$1.29	$3.04	0.7%
Subtotal General Services	**$7,338.11**	**$98.09**	**$230.76**	**51.4%**
Roads and Related	$3,066.07	$40.99	$96.42	21.5%
Water	$1,516.02	$20.27	$47.67	10.6%
Sanitary Sewer	$1,608.00	$21.50	$50.57	11.3%
Storm Water Management	$751.08	$10.04	$23.62	5.3%
Subtotal Engineered Services	**$6,941.17**	**$92.80**	**$218.28**	**48.6%**
TOTAL CHARGE PER SQUARE METRE	**$14,279.28**	**$190.89**	**$449.04**	**100.0%**
(1) Based on Floor Space Per Worker (FSW)		74.8	31.8	

HEMSON

D. Comparison Of Proposed And Existing DCs

Tables 11 and 12 present a comparison of total proposed City-wide DCs for a large apartment unit and per square metre with the City's existing charges (as at February 1, 2017).

Table 11 shows that the calculated charge per large apartment unit of $51,740 will produce an increase of $27,101 over the present DC. Table 12 shows the change calculated for the non-industrial non-residential charge. The proposed charge of $449.04 per square metre of non-industrial GFA represents an increase of $241.52 over the existing rate of $207.52.

TABLE 11

CITY OF TORONTO
COMPARISON OF CURRENT AND PRELIMINARY DRAFT CALCULATED
RESIDENTIAL DEVELOPMENT CHARGES

Service	Current Charge per Large Apt	Calculated Charge per Large Apt	Difference in Charge	
			($)	(%)
Spadina Subway Extension	$1,811	$1,555	($256)	-14%
Transit (balance)	$7,878	$16,631	$8,753	111%
Parks and Recreation	$3,673	$6,038	$2,365	64%
Library	$1,031	$1,060	$29	3%
Subsidized Housing	$830	$4,049	$3,219	388%
Shelter	$0	$533	$533	N/A
Police	$481	$628	$147	31%
Fire	$225	$260	$35	16%
Paramedic Services	$127	$292	$165	130%
Development-related Studies	$173	$297	$124	72%
Civic Improvements	$140	$142	$2	1%
Child Care	$246	$446	$200	81%
Health	$39	$5	($34)	-87%
Pedestrian Infrastructure	$45	$29	($16)	-36%
Subtotal General Services	**$16,699**	**$31,965**	**$15,266**	**91%**
Roads and Related	$3,061	$8,760	$5,699	186%
Water	$2,496	$4,258	$1,762	71%
Sanitary Sewer	$1,881	$4,582	$2,701	144%
Storm Water Management	$502	$2,175	$1,673	333%
Subtotal Engineered Services	**$7,940**	**$19,775**	**$11,835**	**149%**
TOTAL CHARGE PER UNIT	**$24,639**	**$51,740**	**$27,101**	**110%**

Current charge as of February 1, 2017

TABLE 12

CITY OF TORONTO
COMPARISON OF CURRENT AND PRELIMINARY DRAFT CALCULATED
NON-INDUSTRIAL DEVELOPMENT CHARGES

Service	Non-Residential ($/Square Metre)		Difference in Charge	
	Current Non-Residential Charge	Calculated Non-Industrial Charge	($)	(%)
Spadina Subway Extension	$18.74	$16.70	($2.04)	-11%
Transit (balance)	$81.71	$178.90	$97.19	119%
Parks and Recreation	$4.08	$8.37	$4.29	105%
Library	$1.14	$1.47	$0.33	29%
Subsidized Housing	$0.00	$0.00	$0.00	0%
Shelter	$0.00	$0.00	$0.00	0%
Police	$5.06	$6.76	$1.70	34%
Fire	$2.38	$2.80	$0.42	18%
Paramedic Services	$1.35	$3.14	$1.79	133%
Development-related Studies	$1.83	$3.20	$1.37	75%
Civic Improvements	$1.47	$1.53	$0.06	4%
Child Care	$2.58	$4.80	$2.22	86%
Health	$0.42	$0.05	($0.37)	-88%
Pedestrian Infrastructure	$3.83	$3.04	($0.79)	-21%
Subtotal General Services	**$124.59**	**$230.76**	**$106.17**	**85%**
Roads and Related	$32.00	$96.42	$64.42	201%
Water	$26.05	$47.67	$21.62	83%
Sanitary Sewer	$19.64	$50.57	$30.93	157%
Storm Water Management	$5.24	$23.62	$18.38	351%
Subtotal Engineered Services	**$82.93**	**$218.28**	**$135.35**	**163%**
TOTAL CHARGE PER SQ.M.	**$207.52**	**$449.04**	**$241.52**	**116%**

Current charge as of February 1, 2017

HEMSON

VI Cost of Growth Analysis

This section provides a brief examination of the long-term capital and operating costs as well as the asset management-related annual provisions for the capital facilities and infrastructure to be included in the Development Charges By-law. This examination is required as one of the provisions of the Development Charges Act. Additional details on the cost of growth analysis, including asset management analysis, for transit services is included in Appendix F. The analysis for all other services is included in Appendix G.

A. Asset Management Plan

1. Transit

The asset management plan for Transit services examines how both the City of Toronto ("City") and the Toronto Transit Commission ("TTC") utilize long-term financial planning and asset management planning to ensure the fiscal sustainability of transit services operations, including the full life-cycle cost of assets. Although all transit assets have a useful life longer than ten-years, the analysis used for the purposes of the 2018 DC Background Study is focused on the DCA legislated ten-year transit planning horizon (the period immediately following the preparation of the DC Background Study) of 2018-2027. The analysis also focuses on the share of the capital assets included in the calculation of the DC rates, although reference is also made to the needs of the gross-cost of the added assets.

The City of Toronto is currently updating its Long-Term Financial Plan to ensure the City continues to run efficiently, spend public money wisely, and be able to deliver the long-term programs and services that residents need and want. For the purposes of the analysis, five different asset groups were examined to calculate the annual provisions required for the ongoing operation and maintenance of the system. The five groups are as follows:

1. Track Related Infrastructure (Higher-Order Transit Projects and Other Track Projects)
2. Rolling Stock (Subway Cars, Street Cars, Buses and other fleet)
3. Buildings & Structures
4. Equipment
5. Planning & Design Studies & Service Planning

Table 13 provides a summary of the calculated annual reserve fund contributions based on the identified useful lives of the various assets and projects.

Table 13 – Summary of Calculated Full Life Cycle Annual Contributions ($000s) at 2028		
Capital Project Description	**Gross Cost 2028 Contribution**	**2018-2027 Maximum Development Charge Recoverable 2028 Contribution**
Track Related Infrastructure		
Subway Projects	$157.62	$8.27
Streetcars & LRT	$173.20	$14.98
Rolling Stock		
Non-Revenue Vehicles	$0.93	$0.21
Buses	$18.53	$18.53
Streetcars, LRT & Subway Cars	$126.70	$8.35
Buildings & Structures	$55.88	$9.97
Other Equipment	$61.80	$13.95
Planning & Design Studies & Service Planning		
Studies & Non-Assets	$0	$0
Other Projects – As above	$3.63	$0.78
Total	**$598.29**	**$75.04**

A detailed analysis of the asset management and financial strategies for the various asset groups is described in detail in Appendix F. Several staff report and documents are referenced that identify the City's commitment to fund capital expenditures and address long-term capital and operating impacts.

The analysis concludes that the asset management plan analysis demonstrates that the City can afford to invest and operate transit infrastructure over the ten-year and long-term planning period. Importantly, the City's ongoing asset management and long-term financial planning practices will ensure that the projects included in the 2018 DC Background Study are financially sustainable over their full life cycle.

2. All Other Services

Table 14 and 15 provides the calculated annual asset management contribution for 2018-2028 and 2018-2042 for both the gross capital expenditures and the share related to the 2018-2027 and 2018-2041 DC recoverable portion. The year 2028 and 2042 have been included to calculate the annual contribution for the 2018-2027 and 2018-2041 periods as the expenditures in 2027 and 2041 will not trigger asset management contributions until 2028 and 2042, respectively. As shown in Table 14, by 2028, the City will need to fund an additional $69.77 million per annum in order to properly fund the full life-cycle costs of the new assets related to the general services supported under the development charges by-law. A further $25.26 million will be required for engineered services.

Table 15 provides a separate analysis of the annual provisions required for the engineered services capital program as the program extends to 2041. As shown in Table 15, the annual provision in 2042 amounts to $70.66 million. The calculated annual funding provision should be considered within the context of the City's forecasted growth; over the next ten years (to 2027) the City is projected to grow by approximately 151,120 total private dwellings units as well as roughly 103,350 net new employees. Over the longer planning period to 2041, the City will grow by 313,920 dwelling units and 209,200 net new employees. This growth will have the effect of increasing the overall assessment base and additional user fee and charges revenues to offset the capital asset provisions required to replace the infrastructure proposed to be funded under the development charges by-law.

The calculated annual provisions identified are considered to be financially sustainable as it is expected that the increased capital asset management requirements can be absorbed by the tax and user base over the long-term.

Table 4 Calculated Annual Provision by 2028 General Services				
	2018-2027 Capital Program		Calculated AMP Annual Provision by 2028	
Service	**DC Recoverable**	**Non-DC Funded**	**DC Related**	**Non-DC Related**
Public Health	$ 800,000	$ -	$ 16,000	$ -
Police Services	$ 99,700,000	$ 119,400,000	$ 3,486,000	$ 5,692,000
Fire Services	$ 40,800,000	$ 2,500,000	$ 1,162,000	$ 45,000
Paramedic Services	$ 56,600,000	$ 94,700,000	$ 1,684,000	$ 2,866,000
Library	$ 141,300,000	$ 345,400,000	$ 10,673,000	$ 33,667,000
Parks and Recreation	$ 1,604,700,000	$ 2,631,600,000	$ 36,444,000	$ 99,107,000
Subsidized Housing	$ 527,100,000	$ 228,500,000	$ 11,605,000	$ 5,352,000
Shelter	$ 67,500,000	$ 600,000	$ 1,459,000	$ 1,459,000
Civic Improvements	$ 29,100,000	$ 31,500,000	$ 1,110,000	$ 196,000
Pedestrian Infrastructure	$ 19,300,000	$ 41,600,000	$ 547,000	$ 961,000
Childcare	$ 73,800,000	$ 7,000,000	$ 1,587,000	$ 2,007,000
Studies	$ 51,100,000	$ 23,200,000	$ -	$ -
General Services (Excld. Transit) Sub-total			**$ 69,773,000**	**$ 151,352,000**
Roads & Related	$ 1,145,700,000	$ 1,027,000,000	$ 15,941,841	$ 14,290,190
Water Services	$ 524,000,000	$ 846,400,000	$ 7,291,197	$ 11,777,232
Sanitary Sewer	$ 145,500,000	$ 297,800,000	$ 2,024,560	$ 4,143,738
Storm Water Management	$ -	$ -	$ -	$ -
Engineering Services Total			**$ 25,257,598**	**$ 30,211,159**
Total 2028 Provision			**$ 95,030,598**	**$ 181,563,159**

Table 5 Calculated Annual Provision by 2042 Engineered Services				
	2018-2041 Capital Program		Calculated AMP Annual Provision by 2042	
Service	**DC Recoverable**	**Non-DC Funded**	**DC Related**	**Non-DC Related**
Roads & Related	$ 1,987,800,000	$ 1,262,200,000	$ 27,659,240	$ 17,562,880
Water Services	$ 956,500,000	$ 1,178,600,000	$ 13,309,218	$ 16,399,628
Sanitary Sewer	$ 1,408,100,000	$ 4,789,800,000	$ 19,593,005	$ 66,647,665
Storm Water Management	$ 725,900,000	$ 899,100,000	$ 10,100,534	$ 12,510,526
Total 2042 Provision			**$ 70,661,998**	**$ 113,120,698**

* Non-DC funding includes projects that are funded by local developers, post-period shares etc.

B. Long-Term Capital And Operating Impacts

1. Transit

Table 16 provides a summary of the long-term capital and operating impacts for Transit services, arising from ridership increases, over the identified benefitting periods from 2011-2017, 2018-2027 and 2028-2041. The analysis assumes that these assets are currently open and operational, although it is likely that these costs will actually occur at a later point in the future. The relationship of operating revenue per AM Peak Period Trip is established based on 2017 ridership on the 2011 network which has been extrapolated from the TTC's annual reports. This approach is deemed reasonable for the purposes of the DC Background Study, and meeting the requirements of the DCA. However, it is recognized that the actual cost impacts, including timing, will be determined through the TTC's annual budgeting process.

Consistent with current practices, the net funding difference is anticipated to be funded from other revenue sources such as property taxes. It is noted that the City also continues to have dialogue with organizations such as Metrolinx regarding revenue agreements of fare sharing and discount assumptions.

Table 16 - Long-Term Operating Impact Analysis

OPERATING REVENUE AND EXPENSE	2011-2017	2018-2027	2028-2041
OPERATING REVENUE STATISTICS			
Operating Revenue – including property rental, etc. ($ Millions)	$1,213.75	$687.47	$1,901.22
AM Peak Period Trips	87,053	49,307	81,640
Operating Revenue per AM Peak Period Trip($)	$13,942.67	$13,942.67	$13,942.67
OPERATING EXPENSE STATISTICS			
Operating Expenses ($ Millions)	$1,737.58	$984.17	$2,721.75
AM Peak Period Trips	87,053	49,307	81,640
Operating Expense per AM Peak Period Trip ($)	$19,960.05	$19,960.05	$19,960.05
NET OPERATING IMPACTS			
Net Operating Impacts ($ Millions)	$523.83	$296.70	$820.53
Net Operating Impacts per AM Peak Period Trip ($)	$6,017.39	$6,017.39	$6,017.39

2. All Other Services

Appendix G summarizes the estimated increase in net operating costs that the City will experience for additions associated with the planned capital forecast. These estimates are generally based on average costs derived from the 2017 Capital Budget.

Increases in net operating costs will be experienced as new facilities such as community centres are opened. Operating and maintenance costs will also increase as additions to the City's road network and parkland and playing

fields are made. However, it is recognized that the increase in assessment and non-tax revenues associated with new development are anticipated to partially or fully offset the increased costs identified, depending on the nature of the new development. Appendix G provides a breakdown of the increased operating costs by service. It is noted that the appendix is not a full fiscal impact analysis of new development, which would access the net impact on the City's budget arising from new development. New development will bring in additional tax revenue from the property taxes, but it will also require additional costs to provide municipal services. A comprehensive fiscal impact analysis is beyond the scope of the study.

Appendix G also summarizes the components of the development-related capital forecast that will require funding from non-DC sources. In total, $8,042.08 million will need to be financed from non-DC sources over the next ten-years. In addition, $2,170.71 million in interim DC financing, may be required. Because DC by-laws must be revisited at least every five years, however, it is difficult to determine the quantum of interim financing that may be necessary. Appendix G provides a breakdown of the non-DC financing requirements by service.

The share of the development-related capital forecast requiring funding from non-DC sources consists of two components. The most significant, at $7,645.16 million, is related to replacement of existing City facilities with newer and larger facilities that will benefit the existing community. An additional $396.92 million is identified as the mandatory ten per cent discount for certain City-wide general services. Council is made aware of these factors so that they understand the operating and capital costs that will not be covered by DCs as it adopts the development-related capital forecast set out in the study.

VII Development Charges Administration & Policy Considerations

A. Development Charges Consultation And Approval Process

The 2018 DC Background Study is intended to be used for the purposes of public consultation and fully satisfies all requirements of the Development Charges Act and associated Regulation. Following the statutory consultation period, the calculations will reviewed and necessary adjustments to the development charge rates and policies will be made. These adjustments will be incorporated into the finalized amended Development Charges By-law and will be provided to Council for their formal approval.

It is anticipated that the Development Charges By-law will be brought forward for Council's approval in late March 2018, subject to any changes.

B. City-Wide Vs. Area-Specific Charges

1. Consideration for Area Rating

In accordance with the Development Charges Act, Council must give consideration to the use of area rating, also known as area-specific development charges, as part of the DC Background Study. As part of the City's 2018 DC update, the appropriateness of implementing area-specific development charges for the various City services was examined.

The Development Charges Act permits the City to designate, in its Development Charges By-law, the areas where development charges shall be imposed. The charges may apply to all lands in the City or to other designated development areas as specified in the DC By-law.

The following was considered with respect to area-specific development charges:

- Is the use of area-specific charges appropriate for some or all services?
- Are there any data limitations with calculating an area-specific development charge?
- Are there policy, risk or financial implications of implementing an area-specific charge?

Area-specific development charges are typically considered when there is clear benefit to a particular area (including the population or population and employment), and have been implemented mostly in stand alone green field developments.

2. Consistent with Historical Practices, City-wide DCs are Proposed

The City's current practice is to calculate and levy development charges on a City-wide uniform basis. The previous DC Background Studies included a rational to support the City-wide DC structure. Several of these findings are still relevant to the 2018 DC Background Study update and include the following:

- The majority of municipalities in Ontario have established uniform, municipal-wide development charges. Typically, area-specific charges are applied to infrastructure that has clear benefits to a particular area such as storm water management, collector/minor arterial roads and/or water and sanitary services. Area-specific rates are also used when there are master servicing or front-end financing arrangements that identify specific infrastructure requirements for a particular area.

- In the Toronto context, continued growth in the downtown and outer areas triggers the need to develop City-wide transportation, water and sewer processing, and recreation networks.

- The calculation and updating of area-specific charges in portions of a large metropolitan area is difficult especially given the movement of people across the City between where they live, work and recreate and the need to allocate cost by benefitting area;

- The use of area-specific charges can also be challenging for general services given the service level restrictions under the DCA. In creating area-specific charges, this may unintentionally limit service levels in particular areas.

- Some infrastructure investments, particularly higher order transit lines, are expected to support intensification and generate related service demand. Costs recovered through area-specific charges may discourage intensification and run counter to these broader objectives.

3. Need for Servicing in Different Areas

The need for servicing in different areas, as required by the DCA, was also examined in the context of the Port Lands and the City's downtown core area known as TOcore. The following provides a discussion of the consideration for area-specific DCs in these areas.

a. Waterfront and Port Lands

In previous DC Background Studies, the use of area-specific charges for Waterfront projects, including Port Lands related projects, were reviewed and considered. Both studies concluded that the use of a City-wide uniform rate was preferred for reasons such as challenges with distinguishing servicing benefits between areas.

As part of this update, the use of area-specific charges were considered for the Port Lands area. The rationale for continuing with the City's current practice of City-wide DCs for these areas are as follows:

- While some projects in the Port Lands will specifically be used to meet the increased need for services in the area, most projects will meet the needs of development occurring elsewhere in the City. In this respect, it is challenging to segregate benefits between these areas.

- The City has applied development charges uniformly, without varying them in an attempt to account for geographically-based servicing cost differences. This is the most widely used municipal approach in Ontario and beyond, and the one proposed for continued use in Toronto.

- DC collections can be earmarked and exclusively directed toward the funding of Waterfront and Port Lands infrastructure projects. However, it may be more prudent to leave the City with the full discretion as to the way in which it prioritizes development-related needs and DC reserve fund draws.

- Waterfront and Port Lands related projects are deemed to support development not only in these areas, but also further develop larger networks of infrastructure across the City. As such, these projects have not been identified separately in the DC capital forecasts and are not intended to be treated differently then other services.

b. TOcore

In recent years, the City has began to develop a plan to shape the development of the downtown core, referred to as TOcore: Planning Downtown. This project is currently in the preliminary planning stages and is anticipated that reports regarding the anticipated development and infrastructure needs will be developed in the near future. However, these assumptions will not be finalized in time for the completion of the 2018

DC Background Study and therefore, the use of area-specific development charges, will be considered in subsequent DC updates.

One key piece of TOcore infrastructure already identified by Council is the Rail Deck Park initiative. Due to the high cost of creating a large urban park in a downtown area, Council has requested that the Province amend the DCA to facilitate greater cost recovery through DCs, unconstrained by current service levels.

c. General and Engineered Service Delivery

The resulting development charges for City services would be imposed uniformly against all new development everywhere in the City. Through discussions with staff, it was determined that a continuation of the City's current practice of City-wide development charges would form a reasonable basis to plan and administer the development charges.

The following table provides a discussion of the needs for servicing in different areas, by service.

City Services Considered	Needs for Servicing in Different Areas
General Services	• Services such as Library, Parks & Recreation, Public Health, Shelter, and Subsidized Housing are open and accessible to all residents in the City and are driven and planned for based on City-wide population growth. • For Child Care, Fire, Paramedic Services, Development-related Studies, Police etc. these services are provided to all residents and employees in the City and are driven and planned for based on City-wide population or population and employment growth. • For Transit services the City provides, the full range of capital facilities, land, equipment and infrastructure is available throughout the City. All residents and employees therefore have access to all facilities. A widely accepted method for recovering the development-related capital costs for such services is to apportion them over all new development anticipated. This approach is consistent with the development charges imposed under the City's current by-law for Transit services.
Engineered Services	• Roads & Related are provided through a City-wide network and is planned based on City-wide population and employment growth. • Services such as Water, Sanitary Sewer and Storm Water Management services, a network of ponds, linear infrastructure and treatment facilities are used to provide services to City-wide population and employee growth.

C. Other Policy Considerations

1. Statutory and Non-Statutory Policies

The statutory and non-statutory policies currently identified in the City's existing DC By-law are proposed to be brought forward as part of the proposed 2018 Development Charges By-law with some modifications. For example, the City is considering:

- Replacing the current uniform non-residential rate with a differentiated industrial and non-industrial rate category;
- The applicability of the charge to University residences (previously exempt);
- The exemption through the City's Imagination, Manufacturing, Innovation and Technology (IMIT) Program;
- Updates to the affordable housing definitions to better align with current Council approved programs.

These policies will be prepared and included in the Draft DC By-law that will be made available under separate cover, two weeks in advance of the statutory public meeting on January 24, 2018.

D. Economic Impact of Development Charges

1. The Development of Land is Complex, Dynamic and Involves Many Parties

In the study of land economics it is generally recognized that the development of land, for residential or non-residential purposes, is a complex economic environment involving a multitude of players (i.e. landowner, developer, construction industry, sellers and buyers) and that changes in prices are borne by all or several of those involved, depending on the status of the land market.

Previous analysis completed on behalf of the City of Toronto, during earlier DC updates, has found that in general, during a strong housing market, it appears that an increase in residential DCs has limited to no impact on the rate of housing construction. Certain types of non-residential land uses, in particular industrial use, can be impacted by changes in upfront charges involving DCs. Population-related land uses, i.e. retail use, are not overly sensitive to increases in DCs. An overview of this previous work is summarized below. These findings are largely consistent with analysis undertaken for the City of Vancouver, Canada's other market that has

experience significant high-density residential development and downtown-core non-residential activity, as part of Vancouver's Development Cost Levy review. These findings are also summarized below.

The City recognizes that it is currently reviewing a number of development-related policies and initiatives policies, in addition to the DCs, including:

- The Imagination, Manufacturing, Innovation, and Technology (IMIT) Property Tax Incentives Program Review, which may result in changes to tax increment equivalent grant eligibility and/or grant amounts;

- The TOcore initiative to prepare a Secondary Plan for Toronto's Downtown, under which the City is identifying future infrastructure needs and considering land use policies to better support policy objectives such as ensuring non residential development in key locations;

- The Parkland Acquisition Policy Review, which re-examines Toronto's parkland dedication and cash-in-lieu of parkland policies; and

- Ongoing efforts to reduce the City's commercial and industrial property tax ratios.

The City is reviewing the potential cumulative impacts of DCs and various other financial tools and other City initiatives on residential and non-residential development patterns in Toronto.

2. City of Toronto's Previous Analysis on the Consequences of Development Charges

The City commissioned a study in 2004 by Professor David M. Nowlan to assess the economic effects of the calculated 2004 City of Toronto DCs. The study concluded that:

- Most of the increased DCs would be borne by the owners of developable land;

- Competition from existing dwelling stock will restrain the extent to which selling prices can be raised to recover the higher charge;

- Higher DCs will permit tangible savings in property taxes and user charges, although developers may compensate for this via increased selling or rental prices by a small magnitude; and

- The possibility of the increased charge being passed forward to consumers is much higher in unique locations, such as the central area.

The City's 2008 DC Study summarized the results of previous research (included the analysis of Professor David M. Nowlan) concerning the potential impact of (increased) DCs on economic development:

- There are two fundamentally different ways of viewing the City's current comparatively low DCs. The first view is that this is sound policy reflecting the City's cost economies of scale and enhancing its competitive position in attracting residential, commercial, and industrial growth. The second opposing view is that higher DCs would not tangibly inhibit growth and that the City is failing to fully utilize this significant capital funding source. As a result, its tax levy and water/sewer rates are higher than would otherwise be necessary and/or needed works are being deferred.

- Many municipalities impose the full residential DC and, in some cases, discount or exempt only a portion of their non-residential (i.e. industrial/commercial) charges, in the interests of attracting more of such development. Their policy position, implicitly or explicitly, is that the rate of industrial and/or commercial development may be impacted by the quantum of their DCs. Their actions suggest that this is not the case with residential development, or at least that the "growth pays for growth" philosophy is expected to be more operative in that case.

a. Residential Development Impacts

- A change in DC quantum is thought by some to reflect itself directly and automatically on house prices. However, in the strong market experienced for years in Toronto, house prices reflect demand pressures more than a simple cost recovery formula. DC increases are absorbed in pricing (and/or land purchase) but may not always be a significant detriment of such prices due to overall market dynamics. However, in poor markets, house prices may be unable to absorb DC increases. As a result, DC increases may impact profits and/or construction activity. Over a longer period of time, DC increases may result in compensating land price decreases where the selling price of the final product cannot be increased sufficiently. This is particularly the case where there is a high "value-add" to the undeveloped land value.

- The potential impact of DC quantum shifts on the residential housing market is also impacted by the competitive environment and by the price and nature of the housing involved. For example, Toronto is surrounded by four Regions which impose much higher DCs; however, land costs, building forms, the planning process, ease of construction, tax rates, municipal and commercial service levels and lifestyle also vary significantly between these two

markets. It is the cumulative effect of these socio-economic forces which determines whether a significant addition to Toronto's residential DCs will diminish its rate of residential growth. This, in turn, raises the question of whether a small reduction in residential growth, resulting from an increase in DC quantum which better equips the City to fund its growth-related servicing needs, is an acceptable trade-off.

- When one plots DC quanta against residential development activity amounts in different municipalities, a cost and effect relationship is not apparent. That is, in part, because municipalities which are attractive high-growth areas, are able to impost high DCs as part of maintaining high service levels. Municipalities with lower market appeal tend to moderate DCs in the hopes of encouraging more growth. However, in a high growth market, the primary detriments to the amount of residential development in a municipality generally relate more to serviced/zoned land availability, amenity/lifestyle, access to job opportunities, development industry focus, etc.

b. Industrial/Commercial Development Impacts

- The City is currently not imposing industrial/office/institutional DCs (except in relation to non-industrial ground floor), although the Toronto Catholic District School Board does impose education DCs. The City is one of the very few major municipalities in Ontario not imposing development charges on these forms of development.

- The decision as to whether or not Toronto should establish industrial/office/institutional DCs and, if so, how high they should be and whether they should vary between industrial and commercial uses is an important policy issue. Essentially, it involves the trade-off between increased capital contributions (which must otherwise come from property taxes and/or user rates) and a potential deterrent of indeterminate size to new and expanded development activity within the City.

- The potential impact of DC quantum shifts on the industrial and commercial market is also impacted by the competitive environment and by the price and nature of the development involved. For example, Toronto currently waives DCs for industrial and office development, but imposes substantially higher municipal taxes on these properties than surrounding municipalities. Land costs, building forms, the planning process, ease of construction, tax rates, municipal and commercial service levels and lifestyle

also vary significantly between those two markets. It is the cumulative effect of these socio-economic forces which determines whether a significant increase to Toronto's industrial and office DCs will diminish the rate of growth. Since DCs provide a one-time contribution, while property taxes establish an ongoing revenue stream to municipalities, this, in turn, raises the question of whether a reduction in industrial and office development, resulting from an increase in DCs, improves or diminishes the City's financial position.

- Industrial and commercial properties are generally acknowledged as paying more in property taxes than the cost of the municipal services they consume. It is this net positive contribution to municipal revenues that helps support the services and programs the City provides to its residents. The long-term fiscal sustainability of such municipal services is therefore benefitted by maintaining a strong industrial and office property tax base.

- Municipalities are generally more concerned with attracting industrial/office development than residential, because the former brings local jobs, commercial services, less increased need for some municipal services, economic stimulus and more highly taxed assessment.

- In this regard, industrial and head office development, under pass by-laws been given added attention, in comparison with retail and service sector employment, which is generally "population-related". Also, "major destination retail" which services the entire GTA, differs somewhat from community-specific retail services. The latter is more related to urban population centres than industry (for example, the automotive industry, which has located plants in smaller communities such as Alliston, Cambridge and Ingersoll).

- Industrial site selection analysis generally focuses on non-financial matters, such as transportation access to markets, proximity to labour and suppliers, quality of life/image/amenity and the sustainability of the available real estate. Financial matters are often less important and relate more to land and construction costs, as well as property tax and utility rate costs. DCs are a relatively small component of the latter but at the margins can have an impact on a cumulative basis, particularly where property taxes are high, as in Toronto.

- Notwithstanding the fact that Toronto has historically had the lowest DCs for industrial and commercial development of any municipality in the GTA, the City has experienced a steady decline

in industrial employment. In the face of this trend, can the City afford to establish DCs for such uses? The financial answer to the question lies, in part, with the trade-off between the one-time DC revenue figure and the long-term, net property tax surplus stream created by new non-residential development. This is important to understand within the City's overall goal of promoting live/work proximity/access to services and balancing assessment types.

- "Market optics" can play a role in a municipality's ability to attract industrial/commercial development. This often relates more to planning approval matters, but having no DCs or heavily discounted DCs can be part of sending out a favourable message – once again at a price.

- The City has, in the past, used a number of measures to moderate the impact of non-residential development charges. It is evident that all these measures involve sacrificing capital revenues that must be generated from other sources in order to provide the real estate and development market with sufficient opportunity to adjust to any significant change in DC quantum or policy. This is particularly the case in the event of a significant economic downturn relating to international turbulence.

3. City Of Vancouver's Evaluation of the Market Impact of Development Levies

Similar to the City of Toronto, the City of Vancouver levies charges on development, locally referred to as "development cost levies or DCLs", to fund growth-related capital costs associated with meeting the servicing needs arising from new development. Vancouver has been levying DCLs since 2000 and recently undertook comprehensive review and update of the DCLs with Council adopting a new DCL by-law in July, 2017. Hemson Consulting was retained by the City to undertake the review and update. In addition to Hemson, the City also retained Coriolis Consulting. Coriolis was retained to evaluate the financial ability of new development projects in the City to support an increased DCL rates. A copy of the Coriolis report can be found here:

http://vancouver.ca/files/cov/citywide-DCL-rate-update-potential-impacts-on%20urban-development-coriolis-jun-2017.pdf

Coriolis had been retained by the City of Vancouver in 2000, as part of the City's original DCL implementation, and produced a report entitled "Urban Development Charges: An Evaluation of Market Impacts." Coriolis summarized the key finding of the report as follows:

1. In a competitive marketplace, developers cannot simply add the cost of a levy, or an increase in a levy, onto the asking prices for new space. Adding the levy on to the asking price would imply that purchasers are willing to pay more for “levied” space than they would pay for comparable space in comparable neighbourhoods with lower (or no) levies. This, of course, does not happen. Unless someone has a monopoly on a commodity, prices are set by the interaction between supply and demand; no supplier can unilaterally determine price simply because costs are higher. In a sense, a levy in a particular area is no different than if the area had unusually poor soil conditions and therefore above average construction costs. Prices in the affected area will not be arbitrarily higher than in directly competitive areas simply because costs are higher. Something else must “give”.

2. While developers pay the levy when they obtain project approval, they will seek ways to transfer the impact to others, because developers require a profit margin to make development an attractive business. Being neither willing to absorb the levy as a reduction in profit nor able to simply add a surcharge on end prices for their products, the first response of developers to a levy is to lower the bid price for development sites by an amount equal to the levy. The primary impact of levies, therefore, is to put downward pressure on the value of properties for redevelopment. As noted earlier, this is no different than a developer’s response to the fact that an area has worse soils conditions than comparable areas. A developer will be willing to pay less for such sites, by an amount equal to the cost of remedial work (e.g., piling, drainage, excavation, or extra construction costs) needed to make the net cost of the site equivalent to comparable land with no soils problems.

3. It is the land market’s response to the downward pressure on land value that mainly determines the ultimate impact of a new (or increased) levy. If the same amount of land remains available for new development projects (i.e., available for sale at a price developers are willing to pay) after the introduction of a levy, broadly speaking the supply of new product to the market should be unchanged and there will not be an impact to the price of new floorspace.3 Developers experience the same total project cost (albeit made up of different line items) as they would face without the levy, the same amount of new development happens, and there is no reason for demand to change, so prices to consumers and profits for developers remain where they were before the introduction (or increase) of the levy. Only the land value supported by redevelopment changes.

4. The key to understanding and anticipating the impact of levies, therefore, is to understand how the levy is likely to affect the supply of

land available for new development. This depends on the characteristics of individual properties, market conditions, the objectives of individual owners, and other factors.

Coriolis' overall conclusion was that "any new or increased levy can have a combination of these various effects (on different properties), so it is the net combination that determines the impact of a levy on the likelihood of redevelopment and on the ultimate price of new floorspace." Although it is recognized that there are differences between the Toronto and Vancouver land development markets the basis principles of land economics apply equally and as such the Coriolis findings are considered to have relevance to Toronto.

E. Summary of Recommendations

The following provides a summary of recommendations relating to the implementation of the new DC By-law:

- That present practices regarding collection of DCs and by-law administration continue to the extent possible, having regard to any requirements of the DCA;

- That under the DCA, the City should codify any rules regarding application of the by-laws and exemptions within the DC by-laws proposed for adoption;

- That the City continue to use front-ending agreements or developer agreements (or services-in-lieu arrangements), whichever are practical and desirable by the development industry and the City;

- That the by-law permit the payment of DCs in cash or through services-in-lieu agreements. The City is not obligated to enter into services-in-lieu agreements;

- That Council adopt the development-related capital forecasts, and the increase in the need for services attributable to the anticipated development, as included in the 2018 DC Background Study, subject to annual review through the City's normal capital budget process.

- That Council intends to undertake the adopted capital forecast to ensure that the increase in need for service will be met.

- That Council determine that the future excess capacity identified in the Development Charges Background Study shall be paid for by the

development charges contemplated in the said Development Charges Background Study, or other similar charges.

- That Council give consideration of the use of more than one development charge by-law to reflect different needs for services in different areas, also known as area rating or area-specific DCs, and determined that for the services, and associated infrastructure proposed to be funded by DCs under the DC by-law, that the charges be calculated on either a city-wide or area-specific basis

- That Council adopt the Transit development-related capital program, as included in the DC Background Study, as the “planned level of service”, and in doing so, indicate that it intends to ensure that the increase in need for Transit will be met.

- That Council approve the Cost of Growth analysis, including the Asset Management Plan, that deals with all assets whose capital costs are intended to be funded under the development charge by-law and that such assets are considered to be financially sustainable over their full life-cycle.

Appendix A

Development and Transit Ridership Forecasts

HEMSON

Appendix A.1

City of Toronto Growth Forecast

HEMSON

A Growth Forecast

Appendix A provides the details of the growth forecast used to prepare the 2018 Development Charge Background Study for the City of Toronto. The appendix provides a description of the forecast basis and method, underlying assumptions and key inputs. The results of the forecasts are provided in a series of tables which follow.

The 2018 Development Charge Background Study forecasts were prepared by Hemson Consulting incorporating the City's population and household projections, 2016 Census information that has been released to date and the most recent available data on residential and non-residential growth in the City. Given the timing of the forecast update, 2016 Census information on employment is not yet available and the 2011 National Household Survey is relied upon as well as more currently available information from the City of Toronto's 2016 Employment Survey and other sources.

The Study's population and household forecasts are consistent with Amendment 2 to the *Growth Plan for the Greater Golden Horseshoe,* which updated the forecasts in Schedule 3 to the *Growth Plan*. The Schedule 3 forecasts are intended to be used as a basis growth planning in the GGH, including the City of Toronto.

The next section of this appendix provides a brief overview of the forecasts to provide a larger context for the City of Toronto's growth outlook. This is followed by a section addressing the population and housing forecast and then a section on employment and non-residential space. The appendix concludes with a series of tables providing the relevant forecast results.

A. Forecast Overview

The City of Toronto is the central city and the major economic and employment concentration of the metropolitan Greater Toronto and Hamilton Area (GTAH), accounting for 45 per cent of the employment in the area and about 40 per cent of its nearly 7 million population. The GTAH itself is the centre of the larger urban region of the GGH housing over 9 million people.

Since the last Development Charge Background Study was prepared in 2013, the City has maintained a large share of new development in the GTAH, relative to prior decades when residential growth was more concentrated in the suburbs around Toronto. Toronto had topped the North American market for high-rise apartment development for many years and has only been surpassed in recent years by New York City. As well, the resurgence of the Toronto office market, though highly concentrated Downtown, continues to reinforce the attraction of the City for both business and high-density living.

Most of the Toronto's future growth in population and employment will continue to be accommodated through intensive use of the existing land and building supply, including high-density residential development, office development, institutions and other commercial redevelopment. The City has effectually built-out its land supply and has very limited opportunities for greenfield development sites.

More intensive forms of development have many effects on land use and infrastructure planning, and therefore, the municipal corporation as whole. New projects are increasingly complex and contentious in a highly urbanized, built-out environment. The City's infrastructure needs to be maintained, replaced and expanded to accommodate growth, which has major municipal finance implications. The Development Charge Background Study forecasts provide a basis for City of Toronto staff and Council to effectively plan ahead for meeting the needs of growth and funding necessary new and upgraded infrastructure.

B. Population And Housing Forecast

The forecasts presented herein have been prepared by Hemson for the current 2018 DC Study. The forecasts take into account population and household projections to 2041 prepared by the City as well as the most currently available information regarding Toronto's demographic and economic outlook, including releases to date of 2016 Census data. The forecasts reflect trends occurring across the economic region, such as recent rises in fertility rates, the continued decline in mortality rates and the current levels of immigration to the region. The forecast also recognizes factors

affecting the level and what kind of residential growth can be accommodated in the City, such as the nature of the land supply and its effect on future pattern of growth; that is, that most of the City's growth will occur in medium and high density development forms. A range of data sources have been used in the forecast, including:

- Projections prepared by City of Toronto staff to 2041, consistent with Schedule 3 of the Growth Plan for the Greater Golden Horseshoe as updated in 2013 under Amendment 2 to the Growth Plan. Hemson created a new set of projections in which 2016 is the base year utilizing the recently available 2016 Census information. As a result, Hemson's population and household projections at 2016, 2021 and 2026 do not match City's projections that were prepared prior to 2016.

- All 2011 Census data for the GTAH and Toronto as well as the available information from the 2016 Census, specifically the available population and housing data.

- Statistics Canada building permit data on the value of non-residential permits (as a basis for the forecast of non-residential space growth).

- The City's housing and employment data to the most current available.

- Current CMHC housing data to best estimates of housing unit growth and housing market shares in terms of housing completions, housing starts and units currently under construction.

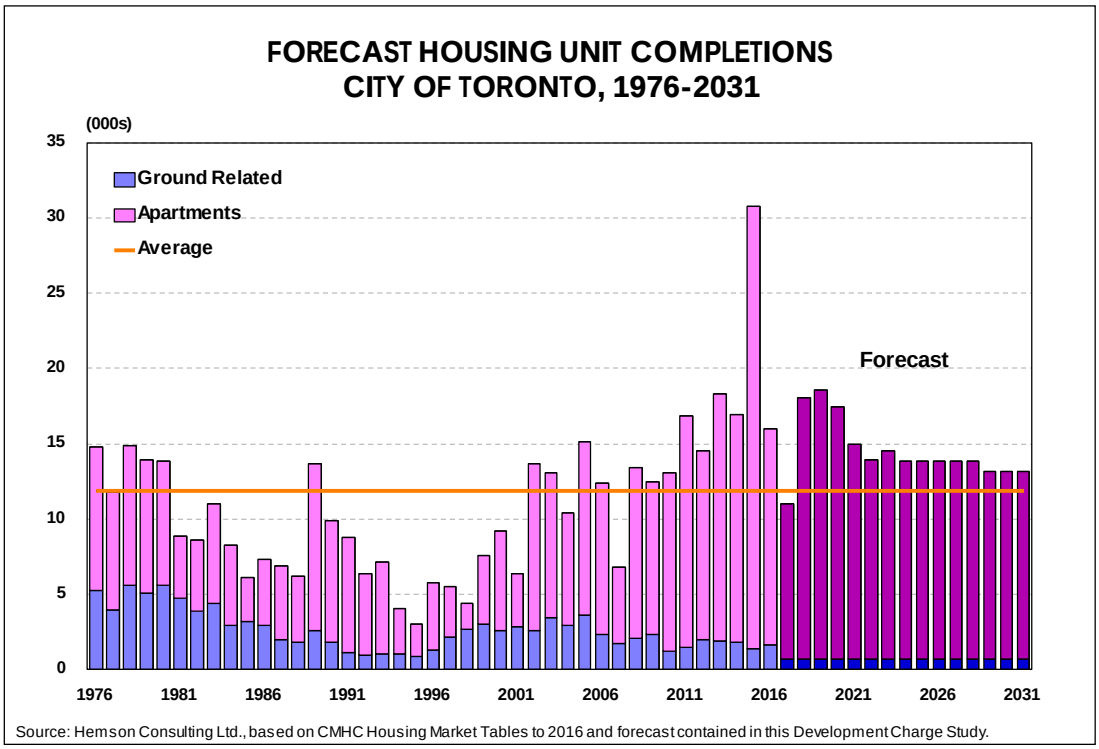
- City of Toronto development tracking data for historic non-residential building space and construction investment for commercial, institutional and industrial uses.

The resulting population projections are consistent with the forecasts which formed the basis of Schedule 3 of the *Growth Plan* and have been updated to reflect more recently available data and the current understanding of economic and demographic factors affecting growth and change in the City and broader region. As is the typical forecast approach, the growth outlook begins with the preparation of a housing forecast; future housing growth is determined by applying market shares to the overall GTAH housing growth; and a forecast of average household size is then applied to the housing forecast to determine the overall population. The forecast also takes into

account the different types of intensification which will occur over the period, including: infill, redevelopment and higher density development on existing designated sites. The housing supply is focussed on the opportunities for intensification through a limited number of lower density units, somewhat more medium density potential and a large supply of high density units.

The specifics of the ten-year forecast which provides the basis for the Development Charge Background Study is largely dependant on the short- and medium- term real estate market outlook, particularly for condominium apartments. At the time that the last development charge study was prepared during 2012 and into 2013, there was a great deal of uncertainty as to whether the high level of construction observed at the time would continue. It has – now much longer than expected and exceeding the levels of growth observed at the time, particularly the large number of units completed in 2015. The historical housing completions data and the forecast to 2031 are shown in the graph below.

Completions for apartment units are essentially know for the first three years of the forecast based on the completion of units currently under construction. Unit completions starting in 2020 are the first real year of a forecast that cannot rely on permits already issued.



Hemson's unit completions forecast accounts for an observed one-year average construction time for ground related units and three-year average construction period for apartments, meaning that permits issued in 2017 become 2018's ground related unit completions and 2020's apartment unit completions. This timing relationship is highlighted in orange in Table 4 – Forecast New Occupied Housing Units and Housing Unit Starts, Net of Demolitions.

The housing and population forecast includes a gradual decline in average household size or Persons Per Unit (PPU) as was anticipated at the time the last DC study was prepared. According to the 2016 Census, the City's all units PPU was about 2.42. This is similar to the City's earlier forecast estimate of about 2.42, which is close to the City's earlier forecast estimate of 2.39 at 2016. The City's forecast change of 3.5 per cent decline in overall PPU from 2016 to 2026 remains reasonable, resulting in a 2026 forecast PPU of 2.33.

The PPUs for new units used in Hemson's forecast is based on 2016 Census data which is the most recently information on household size by unit type and provides an appropriate basis for the current Development Charge population forecast. The PPUs by unit type are as follows:

- Single and Semi 3.69
- Rows 2.96
- Apartments 1.74

C. Non-Residential Space Forecast

The nature of employment growth in the City of Toronto, like residential growth, is shaped by the land supply – or lack thereof. Toronto is unique within the GTAH because its industrial-type employment land is effectually built-out. This means unlike many 905 communities, employment growth in Toronto is dependent almost solely on more intensive use, reuse and redevelopment of developed land and the existing building stock to accommodate new employment, mainly in the office sector.

The relationship between investment, job growth and use of existing buildings in the City is complex. Furthermore, because the employment base in Toronto is so large, even small shifts in factors such as floor space per worker has a large effect on total employment. As a results of these conditions, the market for new investment in Toronto is driven more by the dynamics of the land and building supply rather than simply demand to accommodate employment growth. Major offices will continue to be the primary source of employment growth in the City. As well, the City will continue to accommodate employment growth in the form of retail and institutional services to the resident population.

A new employment forecast has been prepared for the DC Background Study, The forecasts in the *Growth Plan* can not be used for this Study since observed growth has far out-paced the expectations for growth in Schedule 3. The *Growth Plan* requires municipalities to use Schedule 3 as a basis for planning. However in instances where the Schedule 3 forecasts are clearly no longer appropriate, for example in the City of Toronto where employment has

already exceeded the City's 2031 Schedule 3 employment forecast, it is necessary to re-visit and update the growth outlook in order to plan for growth and associated infrastructure and service needs on a realistic basis. As such, Hemson has prepared an employment forecast that updates the Schedule 3 forecasts that acknowledges the actual growth that has already occurred in the City. The employment forecast is of place of work employment, excluding work at home employment. Work at home jobs do not directly generate demand for non-residential space, thus are not included for DC purposes.

While the total GTAH employment forecast is generally on track to meet the total 4.8 million jobs by 2041 forecast under Schedule 3, the pattern of growth within the GTAH is turning out to be much more centralized than forecast. The distribution of the growth in Schedule 3 was based largely on the observed patterns of the last decade. However, the rapid employment growth in Major Office in Toronto and the stabilisation of Employment Land Employment (which had been expected to continue to decline as it had in the previous decades) that has occurred through the post-recession recovery produced a very different result. This pattern has meant that the 2016 Toronto Employment Survey results plus 2016 Census counts of those with no usual place of work and those who work at home so as to be comparable with Schedule 3 puts Toronto ahead of its 2031 official plan target employment and nearly at the 2041 forecast total per the *Growth Plan*. Total employment in Toronto is about 1,695,000 in 2016 (up from 1,530,000 in 2011) and just short of the 1,720,000 that had been forecast for 2041 in the *Growth Plan*. It is likely that the City will actually reach this 2041-forecast figure before 2021. The pattern of employment within the City has also continued to be characterized by highly concentrated office employment in the Core more so than Centres and other areas outside the downtown.

Owing to this dramatically different economic environment than had been anticipated, a new forecast is necessary.

The new forecast prepared by the Hemson indicates City total employment growth over the next 23 years (2018-2041).

Some considerations regarding the City's employment outlook:

- Toronto will continue to maintain a large employment base over the forecast period but, even with the revised forecast, the rate of growth will be slower than the GTAH overall.

- The City will continue to retain its long-term established position in the GTAH office market, higher than the slow years of the 1990s and early 2000s but at a more moderate share than the current heights of this office development cycle. Office employment will continue to be concentrated in the City's downtown core.

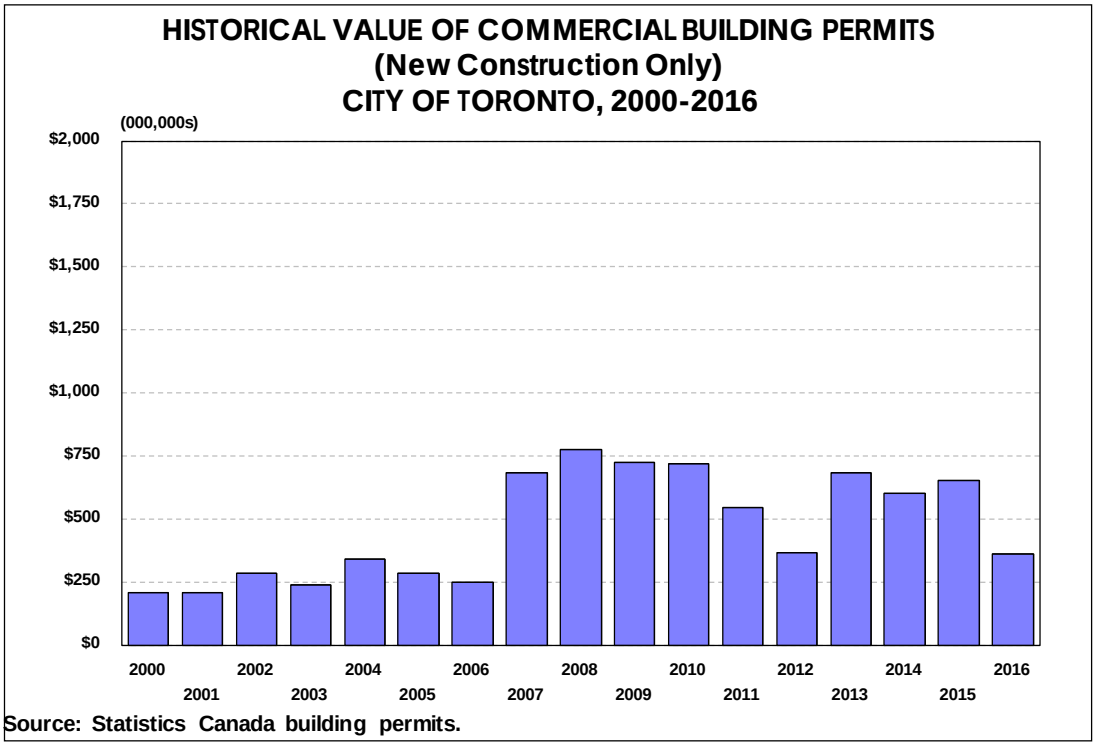
- Population-related employment is expected to continue to increase moderately over time, driven by metropolitan-wide population-related employment growth and consistent with the central place function of the City as well as growth in population.

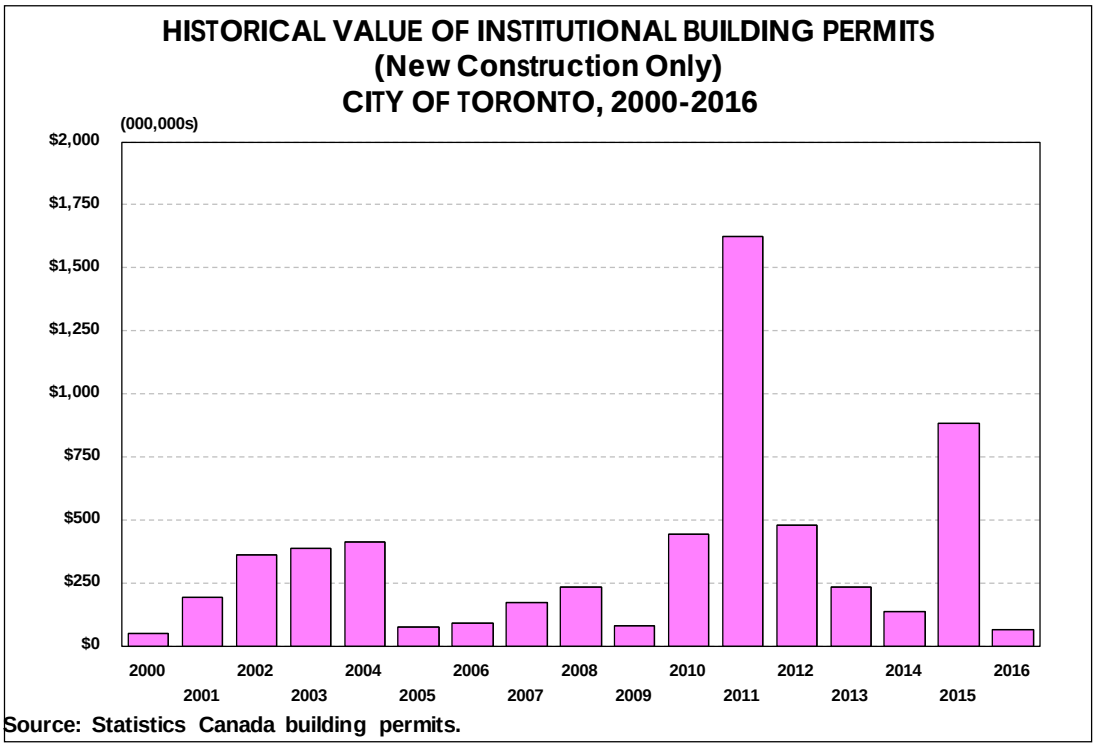
- Employment land employment is expected to continue to decline moderately as the re-use of existing industrial building stock tends to result in lower employment levels than the historic uses. As well, historic land use changes in the City's employment areas to other land uses — some to residential, but mostly to other employment categories such as office or population-related in the form of retail and institutional – has resulted in limited opportunities for this category of employment growth.

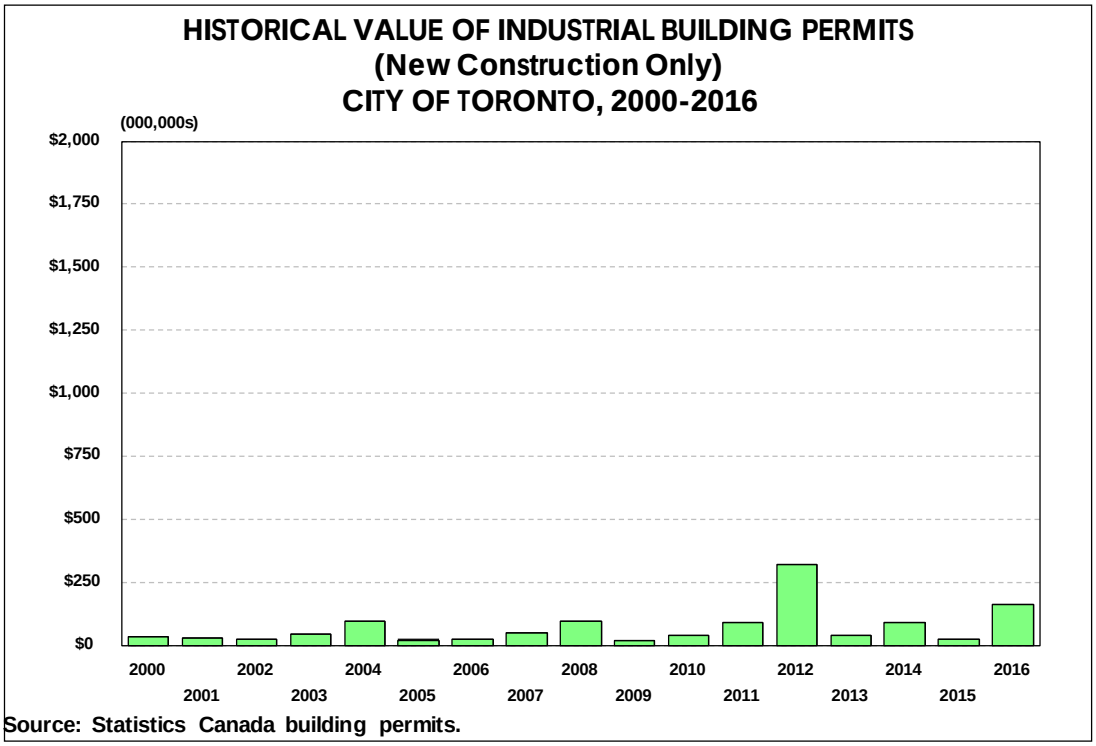
It is important to note that other than office development, employment forecasts do not provide a very good indicator of new non-residential construction, which is of primary interest for the development charge study. Most of the growth in non-residential space is not directly responsive to general employment growth. New non-residential space in the City is a relatively small marginal growth as an addition to the very large stock of standing space. New residential space is more the result of replacement and modernization of space for the specific uses. This would include new retailers coming into the market, market share expansion of existing retailers and addition of new retail formats. Similarly, other new commercial, institutional and industrial space is largely the result of the specific needs of end users, rather than the provision of speculative space to accommodate general market growth.

As a result of the loose connection between general employment growth and new non-residential space, the forecast of non-residential space is most

appropriately based on the continuation of historic patterns of growth. The estimated historic new non-residential development is shown in the following graphs for commercial, institutional and industrial space over the longer term. The forecast itself is relying on recent building area construction data from the City of Toronto, but a complete data set in only available from 2010 onward. The longer-term is provided through the value of building permits data from Statistics Canada, shown in the graphs following.




HISTORICAL VALUE OF INSTITUTIONAL BUILDING PERMITS
(New Construction Only)
CITY OF TORONTO, 2000-2016
(000,000s)
$2,000
$1,750
$1,500
$1,250
$1,000
$750
$500
$250
$0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Source: Statistics Canada building permits.


HISTORICAL VALUE OF INDUSTRIAL BUILDING PERMITS
(New Construction Only)
CITY OF TORONTO, 2000-2016
(000,000s)
$2,000
$1,750
$1,500
$1,250
$1,000
$750
$500
$250
$0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Source: Statistics Canada building permits.

D. Results of the City of Toronto Forecast

The forecasts of population, housing, employment and non-residential space which provide a basis for the 2018 City of Toronto Development Charge Background Study are provided in the following tables.

For historic data, the most recent ten years is shown distinct from the longer-term historic data in order to distinguish between the historic period used for service level calculations and the longer-term history provided for context. Likewise, in the forecasts, a ten year forecast is provided for 2018 through 2027 and a longer-term forecast to 2041 which is the timeframe that will be applied in the development charge calculations.

Table 1: Total new occupied units and household and Census Population by single year for the period back to 1986. The long-term historic is for context purposes. The ten year "historic" period from 2008 to 2017 (estimated) is required for historic service level calculations for ten years immediately prior to the by-law period of 2018 to 2027.

Table 2: Historic housing unit completions and housing unit starts by calendar year from 1986 to 2017. These data are from CMHC's Detailed Housing Market Tables. Housing starts data is very similar to building permits, but varies slightly in terms of timing and with respect to what units are included. CMHC only counts new construction so does not include accessory units of those added in pre-existing residential or non-residential buildings. These represent a very small proportion of the total units, so this data still represents a good historic guide to development patterns.

Table 3: Total forecast new occupied units and household and Census population by single year for the forecast period to 2041. The 2031 and 2041 figures are consistent with Schedule 3 of the *Growth Plan*. The 2016 base has been updated with the currently available Census information. As a result, Hemson's projections for 2016, 2021 and 2026 do not match City's projections that were prepared prior to 2016.

Table 4: Forecast of new occupied housing units and housing unit starts, net of demolitions. The forecast of occupied units is provided on a calendar year basis and is tied to the forecasts in Table 3.

For DC collection purposes, it is the date of permit issuance that is relevant, so the forecast is shown first it terms of completions and then by date issuance which takes account of construction timing, particularly the 3-year average construction timing for apartment buildings.

The units highlighted in orange in the table are those being used for the calculation of the development charge going forward, that is, those units issued permits in 2018 though 2027 which amount to ground related units completed from 2019 through 2028 and apartments completed from 2021through 2030.

Table 5: Historic household size (PPU) by unit type by period of construction from 1945 to 2016, from Statistics Canada Special Run data.

Table 6: Forecast of population in forecast new units based on the forecast PPU and permit issuances from 2018 through 2027.

The forecast is based on the 2001-2011 PPUs as shown in Table 5 (which derive from 2011 Statistics Canada Special Run Data) and the anticipated forecast unit mix.

Table 7: Ten-year and the balance of planning period to 2041 forecast of new units. The nearer-term forecast is based on CMHC data on units under construction while the longer-term forecast is based on the long-term projections prepared by the City.

Table 8: Ten-year and the balance of planning period to 2041 forecast of household population in new units by permit type and issuance date. Based on Table 7 and the population in new units by unit type.

Table 9: Historic employment, shown annually from mid-year 1986 through mid-year 2017. The 10 year historic period is shown distinct from the longer-term historic. Employment is shown by land use based categories for major offices, population-related employment and employment land employment.

Table 10: Forecast employment for the 10 year Development Charge forecast period and the balance of planning period to 2041. The employment forecast prepared for the DC study accounts for the observed growth that has occurred in recent years, which has exceeded the expectations of the *Growth Plan* Schedule 3 and the Official Plan employment forecasts for the City. The employment forecast excludes work at home employment as this component of the employment base does not generate demand for non-residential space.

Table 11: Historic building permit values by the major non-residential types. The upper part of the table includes the value of all building permits, including those for interior renovations. The lower part of the table provides similar data but estimated only for new construction either in the form of a full new building or as a building expansion, the latter of which typically represents a small proportion of the building value.

Table 12: Estimated historic building space construction based on new build and expansion building permit values. The permit values are translated into space using standard construction cost ratios by building type, adjusted for inflation.

Table 13: Forecast construction of new space, including new builds and additions (m^2) based on the City of Toronto DC Forms as time for building permit issuance for the 2018-2027 period.

Table 14: Forecast employees in newly constructed space, including new builds and additions. The employees are forecast by applying an average forecast floor space per worker (m^2) to the total new space forecast. Forecast for the 2018-2027 period, 2028-2041 period and 2018-2041 cumulative are shown. The floor space per worker assumption is based on work undertaken for the City as input to the TO Core Office Institutional Study which included an analysis of historical employment trends within the existing standing stock of office space.

Table 1
Historic Total Occupied Units and Population

Occupied Housing Units and Population						
Period	Year at Mid-Year	Occupied Units	Household Population	PPU	Non-Household Population	Census Population
11-30 Year Historic	1986	816,500	2,157,700	2.64	35,000	2,192,700
	1987	822,900	2,165,700	2.63	35,700	2,201,400
	1988	828,900	2,172,300	2.62	36,400	2,208,600
	1989	838,000	2,186,800	2.61	37,000	2,223,800
	1990	848,700	2,205,600	2.60	37,700	2,243,300
	1991	864,600	2,237,400	2.59	38,400	2,275,800
	1992	872,900	2,261,700	2.59	37,400	2,299,000
	1993	880,400	2,283,700	2.59	36,400	2,320,100
	1994	886,600	2,302,500	2.60	35,400	2,337,900
	1995	890,600	2,315,500	2.60	34,400	2,350,000
	1996	903,500	2,351,900	2.60	33,500	2,385,400
	1997	909,300	2,365,700	2.60	33,400	2,399,100
	1998	914,400	2,377,600	2.60	33,300	2,411,000
	1999	920,500	2,392,200	2.60	33,300	2,425,500
	2000	929,000	2,413,100	2.60	33,200	2,446,300
	2001	943,100	2,448,400	2.60	33,100	2,481,500
	2002	948,200	2,446,800	2.58	33,700	2,480,600
	2003	954,700	2,448,600	2.56	34,400	2,483,000
	2004	960,300	2,448,300	2.55	35,000	2,483,300
	2005	966,500	2,449,200	2.53	35,700	2,484,800
	2006	979,400	2,466,900	2.52	36,300	2,503,300
	2007	988,200	2,476,900	2.51	36,900	2,513,800
10 Year Historic	2008	997,400	2,488,000	2.49	37,400	2,525,400
	2009	1,009,200	2,505,200	2.48	37,900	2,543,200
	2010	1,020,900	2,521,900	2.47	38,500	2,560,400
	2011	1,047,900	2,576,000	2.46	39,000	2,615,100
	2012	1,059,473	2,594,710	2.45	40,466	2,635,176
	2013	1,070,165	2,611,018	2.44	41,986	2,653,004
	2014	1,079,357	2,623,520	2.43	43,564	2,667,085
	2015	1,094,734	2,650,869	2.42	45,201	2,696,070
	2016	1,112,900	2,684,700	2.41	46,900	2,731,600
	2017	1,125,776	2,705,284	2.40	47,764	2,753,048

Source: Historic Data for Census Years are from Statistics Canada Census, interim years are interpolated.

HEMSON

Table 2
Historic Housing Unit Completions and Starts

Period	Calendar Year	Completions (Units Completed and Occupied Add Population)				Starts (Units Started Approximates Charge Collection Date)			
		Single/Semi	Row	Apt	Total	Single/Semi	Row	Apt	Total
11-30 Year Historic	1986	2,767	152	4,372	7,291	-	-	-	-
	1987	1,834	208	4,891	6,933	1,751	440	9,173	11,364
	1988	1,482	371	4,335	6,188	1,977	144	9,744	11,865
	1989	2,191	438	11,057	13,686	2,207	515	8,636	11,358
	1990	1,701	132	8,106	9,939	1,117	62	5,743	6,922
	1991	1,064	64	7,651	8,779	764	95	3,445	4,304
	1992	808	166	5,396	6,370	790	138	6,370	7,298
	1993	904	167	6,097	7,168	758	144	2,576	3,478
	1994	895	157	3,054	4,106	991	163	2,361	3,515
	1995	823	103	2,151	3,077	838	224	4,437	5,499
	1996	958	344	4,488	5,790	1,060	542	2,804	4,406
	1997	1,364	785	3,421	5,570	1,626	1,191	2,928	5,745
	1998	1,360	1,357	1,665	4,382	1,625	1,399	3,735	6,759
	1999	1,860	1,208	4,508	7,576	1,495	1,321	7,281	10,097
	2000	1,505	1,138	6,556	9,199	1,843	1,109	7,793	10,745
	2001	1,727	1,168	3,454	6,349	1,647	1,048	12,594	15,289
	2002	1,530	1,078	11,081	13,689	2,265	1,024	8,327	11,616
	2003	2,389	1,062	9,663	13,114	2,046	1,007	11,842	14,895
	2004	2,209	776	7,453	10,438	2,491	1,265	9,804	13,560
	2005	2,239	1,412	11,485	15,136	1,575	1,034	12,993	15,602
	2006	1,369	1,027	10,024	12,420	1,492	1,007	10,227	12,726
	2007	1,227	552	5,007	6,786	1,521	876	6,457	8,854
10 Year Historic	2008	1,186	944	11,320	13,450	1,289	779	17,642	19,710
	2009	1,395	919	10,159	12,473	1,006	424	10,489	11,919
	2010	1,010	230	11,843	13,083	1,045	785	11,595	13,425
	2011	947	558	15,345	16,850	1,238	491	17,243	18,972
	2012	1,107	457	11,910	13,474	1,247	645	23,524	25,416
	2013	1,185	685	12,672	14,542	1,407	617	13,594	15,618
	2014	1,334	456	7,754	9,544	1,304	293	10,074	11,671
	2015	1,230	193	29,326	30,749	1,358	501	17,054	18,913
	2016	1,358	296	14,373	16,027	1,413	623	17,581	19,617
	2017	250	500	10,310	11,060	250	500	16,700	17,450

Source: Canada Mortgage and Housing Corporation, Detailed Housing Market Data

Table 3
Forecast Total Occupied Units and Population

Occupied Housing Units and Population						
Period	Year at Mid-Year	Occupied Units	Household Population	PPU	Non-Household Population	Census Population
	2016	1,112,900	2,684,700	2.41	46,900	2,731,600
	2017	1,125,776	2,705,284	2.40	47,764	2,753,048
10 Year Forecast	2018	1,140,321	2,729,666	2.39	48,644	2,778,310
	2019	1,158,620	2,762,770	2.38	49,540	2,812,310
	2020	1,176,626	2,794,883	2.38	50,452	2,845,335
	2021	1,192,826	2,822,433	2.37	51,381	2,873,814
	2022	1,207,276	2,845,388	2.36	52,158	2,897,546
	2023	1,221,534	2,867,668	2.35	52,947	2,920,614
	2024	1,235,736	2,889,597	2.34	53,747	2,943,344
	2025	1,249,574	2,910,462	2.33	54,560	2,965,021
	2026	1,263,412	2,931,117	2.32	55,385	2,986,502
	2027	1,277,249	2,951,331	2.31	56,652	3,007,984
Remainder of Planning Period	2028	1,291,087	2,971,336	2.30	57,949	3,029,285
	2029	1,304,579	2,990,340	2.29	59,275	3,049,615
	2030	1,317,725	3,008,353	2.28	60,632	3,068,985
	2031	1,330,871	3,026,174	2.27	62,020	3,088,194
	2032	1,342,621	3,045,577	2.27	63,805	3,109,382
	2033	1,354,372	3,064,870	2.26	65,642	3,130,512
	2034	1,366,122	3,084,053	2.26	67,531	3,151,584
	2035	1,377,873	3,103,126	2.25	69,475	3,172,601
	2036	1,389,623	3,122,090	2.25	71,475	3,193,565
	2037	1,401,091	3,140,899	2.24	72,683	3,213,583
	2038	1,412,559	3,159,611	2.24	73,912	3,233,523
	2039	1,424,026	3,178,224	2.23	75,162	3,253,386
	2040	1,435,494	3,196,739	2.23	76,433	3,273,172
	2041	1,446,962	3,215,157	2.22	77,725	3,292,882

Source: Hemson Consulting Ltd. based in part on City Forecasts, Building Permit Data and CMHC Housing Data

Table 4

Forecast New Occupied Housing Units and Housing Unit Starts, Net of Demolitions

Period	Calendar Year	New Occupied Units, Net of Demolitions (Units Completed and Occupied Add Population)				Building Permit Issuance, Units Net of Demolitions (Units Started Approximates Charge Collection Date)			
		Single/Semi	Row	Apt	Total	Single/Semi	Row	Apt	Total
	2016	220	620	13,860	14,700	220	620	17,840	18,680
	2017	250	500	10,310	11,060	250	500	16,700	17,450
10 Year Forecast	2018	250	500	17,290	18,040	250	500	14,200	14,950
	2019	250	500	17,810	18,560	250	500	13,200	13,950
	2020	250	500	16,700	17,450	250	500	13,820	14,570
	2021	250	500	14,200	14,950	250	500	13,090	13,840
	2022	250	500	13,200	13,950	250	500	13,090	13,840
	2023	250	500	13,820	14,570	250	500	13,090	13,840
	2024	250	500	13,090	13,840	250	500	13,090	13,840
	2025	250	500	13,090	13,840	250	500	13,090	13,840
	2026	250	500	13,090	13,840	250	500	12,400	13,150
	2027	250	500	13,090	13,840	250	500	12,400	13,150
Remainder of Planning Period	2028	250	500	13,090	13,840	250	500	12,400	13,150
	2029	250	500	12,400	13,150	250	500	10,777	11,527
	2030	250	500	12,400	13,150	250	500	10,777	11,527
	2031	250	500	12,400	13,150	250	500	10,777	11,527
	2032	250	500	10,777	11,527	250	500	10,777	11,527
	2033	250	500	10,777	11,527	250	500	10,777	11,527
	2034	250	500	10,777	11,527	250	500	10,777	11,527
	2035	250	500	10,777	11,527	250	500	10,777	11,527
	2036	250	500	10,777	11,527	250	500	10,777	11,527
	2037	250	500	10,777	11,527	250	500	10,777	11,527
	2038	250	500	10,777	11,527	250	500	10,777	11,527
	2039	250	500	10,777	11,527	250	500	10,777	11,527
	2040	250	500	10,777	11,527	250	500	10,777	11,527
	2041F	125	250	5,388	5,763	125	250	5,388	5,763

(1) Note 2041 is a mid-year forecast

Table 5

Household Size by Unit Type by Period of Construction

Geography: Toronto 00000 (4.9%)

	Period of Construction												
	Pre 1945	1946-1960	1961-1970	1971-1980	1981-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2016	Pre 2006	2006-2016	Total
Singles/Semis													
Household Po	244,325	271,540	163,785	108,265	87,245	23,540	30,050	41,315	31,205	26,125	970,065	57,330	1,027,395
Households	88,045	97,525	55,515	33,655	25,695	6,545	8,310	11,015	8,380	7,150	326,305	15,530	341,835
Household Siz	2.78	2.78	2.95	3.22	3.40	3.60	3.62	3.75	3.72	3.65	2.97	3.69	3.01
Rows													
Household Po	19,665	12,290	24,595	46,365	21,280	6,240	13,910	19,495	16,135	9,500	163,840	25,635	189,475
Households	7,660	3,715	7,580	14,835	6,510	1,835	4,655	6,420	5,460	3,195	53,210	8,655	61,865
Household Siz	2.57	3.31	3.24	3.13	3.27	3.40	2.99	3.04	2.96	2.97	3.08	2.96	3.06
Apartments													
Household Po	172,710	182,235	253,225	267,725	170,220	73,620	63,065	75,940	95,890	120,040	1,258,740	215,930	1,474,670
Households	79,700	86,480	116,240	119,785	77,690	33,710	30,590	40,860	53,690	70,450	585,055	124,140	709,195
Household Siz	2.17	2.11	2.18	2.24	2.19	2.18	2.06	1.86	1.79	1.70	2.15	1.74	2.08
All Units													
Household Po	436,700	466,065	441,605	422,355	278,745	103,400	107,025	136,750	143,230	155,665	2,392,645	298,895	2,691,540
Households	175,405	187,720	179,335	168,275	109,895	42,090	43,555	58,295	67,530	80,795	964,570	148,325	1,112,895
Household Siz	2.49	2.48	2.46	2.51	2.54	2.46	2.46	2.35	2.12	1.93	2.48	2.02	2.42

Source: Statistics Canada, 2011 National Household Survey Special Run.

Table 6
Forecast of Persons in Newly Constructed Units

Population in New Units by Unit Type					
		Single & Semi	Row	Apartment	All Units
10 Year Forecast	PPU for New Units Added 2018-2027	3.69	2.96	1.74	1.82
	Building Permits Issued 2018-2027	2,500	5,000	131,470	138,970
	Household Population In New Units Added 2018-27 by Building Permit	9,230	14,800	228,760	252,790

Source: Historic Data from CMHC Housing Starts and Completions Data
Near-term completions forecast is based on CMHC data on units under construction
Longer-term completions and starts based on the long-term growth forecasts for the City

Table 7
New Units by Permit

New Units by Type by Permit Issuance Date					
Period	Calendar Year	Single & Semi	Row	Apartment	All Units
10 Year Forecast	2018	250	500	14,200	14,950
	2019	250	500	13,200	13,950
	2020	250	500	13,820	14,570
	2021	250	500	13,090	13,840
	2022	250	500	13,090	13,840
	2023	250	500	13,090	13,840
	2024	250	500	13,090	13,840
	2025	250	500	13,090	13,840
	2026	250	500	12,400	13,150
	2027	250	500	12,400	13,150
	2018-27	2,500	5,000	131,470	138,970
Forcast Period	2028	250	500	12,400	13,150
	2029	250	500	10,777	11,527
	2030	250	500	10,777	11,527
	2031	250	500	10,777	11,527
	2032	250	500	10,777	11,527
	2033	250	500	10,777	11,527
	2034	250	500	10,777	11,527
	2035	250	500	10,777	11,527
	2036	250	500	10,777	11,527
	2037	250	500	10,777	11,527
	2038	250	500	10,777	11,527
	2039	250	500	10,777	11,527
	2040	250	500	10,777	11,527
	2041	125	250	5,388	5,763
	2028-41	3,375	6,750	147,109	157,234

Source: Near-term completions forecast is based on CMHC data on units under construction
Longer-term completions and starts based on the long-term growth forecasts for the City

HEMSON

Table 8
New Units and Household Population in New Units by Permit

Household Population in New Units by Type by Permit Issuance Date					
Period	Calendar Year	Single & Semi	Row	Apartment	All Units
10 Year Forecast	2018	920	1,480	24,710	27,110
	2019	920	1,480	22,970	25,370
	2020	920	1,480	24,050	26,450
	2021	920	1,480	22,780	25,180
	2022	920	1,480	22,780	25,180
	2023	920	1,480	22,780	25,180
	2024	920	1,480	22,780	25,180
	2025	920	1,480	22,780	25,180
	2026	920	1,480	21,580	23,980
	2027	920	1,480	21,580	23,980
	2018-27	9,200	14,800	228,790	252,790
Forcast Period	2028	920	1,480	21,580	23,980
	2029	920	1,480	18,750	21,150
	2030	920	1,480	18,750	21,150
	2031	920	1,480	18,750	21,150
	2032	920	1,480	18,750	21,150
	2033	920	1,480	18,750	21,150
	2034	920	1,480	18,750	21,150
	2035	920	1,480	18,750	21,150
	2036	920	1,480	18,750	21,150
	2037	920	1,480	18,750	21,150
	2038	920	1,480	18,750	21,150
	2039	920	1,480	18,750	21,150
	2040	920	1,480	18,750	21,150
	2041	460	740	9,380	10,580
	2028-41	12,420	19,980	255,960	288,360

Source: Near-term completions forecast is based on CMHC data on units under construction
Longer-term completions and starts based on the long-term growth forecasts for the City

Table 9
Historic Employment

Historic Employment							
	Mid-Year	Major Office	Population Related	Employment Land	Total for DC Study	Work At Home	Total Employment
11 - 18 Year Historic	2001	546,200	433,300	380,900	1,360,400	74,800	1,435,200
	2002	552,200	435,500	377,200	1,364,900	76,900	1,441,800
	2003	558,300	437,600	373,500	1,369,400	79,000	1,448,400
	2004	564,400	439,700	369,900	1,374,000	81,100	1,455,100
	2005	570,600	441,600	366,300	1,378,500	83,300	1,461,800
	2006	576,800	443,400	362,800	1,383,000	85,470	1,468,470
	2007	579,700	456,100	359,000	1,394,800	85,600	1,480,400
10 Year Historic	2008	582,600	468,900	355,200	1,406,700	85,700	1,492,400
	2009	585,600	481,100	351,400	1,418,100	86,400	1,504,500
	2010	588,600	493,300	347,700	1,429,600	87,100	1,516,700
	2011	591,600	505,500	344,000	1,441,100	87,795	1,528,895
	2012	607,400	513,400	349,300	1,470,100	89,600	1,559,700
	2013	623,600	521,500	354,600	1,499,700	91,400	1,591,100
	2014	640,300	529,600	360,000	1,529,900	93,200	1,623,100
	2015	657,400	537,800	365,500	1,560,700	95,100	1,655,800
	2016	675,000	546,000	371,100	1,592,100	97,000	1,689,100
	2017	687,200	552,100	368,900	1,608,200	98,000	1,706,200

Source: Hemson Consulting based on Statistics Canada data and NAICS.

Table 10
Forecast Employment

	Forecast Employment						
	Mid-Year	Major Office	Population Related	Employment Land	Total for DC Study	Work At Home	Total Employment
	2016	675,000	546,000	371,100	1,592,100	97,000	1,689,100
	2017	687,200	552,100	368,900	1,608,200	98,000	1,706,200
10 Year Forecast	2018	699,600	558,100	366,700	1,624,400	99,000	1,723,400
	2019	712,200	564,100	364,500	1,640,800	100,000	1,740,800
	2020	725,100	570,000	362,300	1,657,400	101,000	1,758,400
	2021	738,200	575,900	360,100	1,674,200	102,000	1,776,200
	2022	745,200	578,100	358,000	1,681,300	102,400	1,783,700
	2023	752,300	580,100	355,900	1,688,300	102,900	1,791,200
	2024	759,500	582,100	353,800	1,695,400	103,300	1,798,700
	2025	766,700	584,200	351,700	1,702,600	103,700	1,806,300
	2026	774,100	585,800	349,700	1,709,600	104,200	1,813,800
	2027	781,700	587,300	347,300	1,716,300	104,600	1,820,900
Remainder of Planning Period	2028	789,300	588,800	344,900	1,723,000	105,000	1,828,000
	2029	797,000	590,100	342,600	1,729,700	105,400	1,835,100
	2030	804,800	591,300	340,300	1,736,400	105,800	1,842,200
	2031	812,700	592,500	338,000	1,743,200	106,200	1,849,400
	2032	820,700	595,000	335,200	1,750,900	106,700	1,857,600
	2033	828,800	597,400	332,500	1,758,700	107,100	1,865,800
	2034	837,000	599,600	329,800	1,766,400	107,600	1,874,000
	2035	845,200	601,900	327,100	1,774,200	108,100	1,882,300
	2036	853,500	604,100	324,400	1,782,000	108,600	1,890,600
	2037	861,900	607,300	321,400	1,790,600	109,100	1,899,700
	2038	870,400	610,400	318,500	1,799,300	109,600	1,908,900
	2039	878,900	613,500	315,600	1,808,000	110,100	1,918,100
	2040	887,500	616,500	312,700	1,816,700	110,700	1,927,400
	2041	896,200	619,400	309,900	1,825,500	111,200	1,936,700

Table 11
Historic Non-Residential Building Permit Values

All permits including new consturuction, renovation and alternations

	Year	Value of All Non-Residential Permits (000s)			
		Commercial	Industrial	Institutional	Total
10 - 18 Year Historic	2000	$221,941	$50,580	$51,484	$324,005
	2001	$247,727	$36,396	$209,289	$493,412
	2002	$330,216	$30,084	$396,046	$756,346
	2003	$297,421	$47,598	$405,432	$750,451
	2004	$372,518	$97,002	$445,782	$915,302
	2005	$962,149	$81,384	$449,163	$1,492,696
	2006	$1,081,938	$131,904	$296,725	$1,510,567
	2007	$1,541,113	$110,040	$495,480	$2,146,633
10 Year Historic	2008	$1,843,098	$304,953	$630,425	$2,778,476
	2007	$1,766,754	$259,681	$393,643	$2,420,078
	2010	$1,687,385	$577,679	$834,819	$3,099,883
	2011	$1,566,220	$232,506	$1,869,075	$3,667,801
	2012	$1,643,112	$425,372	$760,244	$2,828,728
	2013	$2,602,085	$336,874	$487,383	$3,426,342
	2014	$1,963,987	$241,756	$400,237	$2,605,980
	2015	$2,237,447	$251,778	$1,271,499	$3,760,724
	2016	$2,237,202	$361,520	$566,619	$3,165,341
	2017 Est.	$2,237,202	$361,520	$566,619	$3,165,341

Source: Statistics Canada Building Permit Data.

Permits for new consturuction only, including building additions

		Value of Non-Residential Permits for New Buildings and Additions (000s)			
		Commercial	Industrial	Institutional	Total
10 - 18 Year Historic	2000	$205,306	$35,180	$49,094	$289,580
	2001	$206,387	$30,246	$191,927	$428,560
	2002	$284,919	$23,084	$360,066	$668,069
	2003	$236,440	$42,841	$385,262	$664,543
	2004	$339,497	$96,002	$412,742	$848,241
	2005	$282,527	$21,148	$75,217	$378,892
	2006	$250,257	$26,318	$89,365	$365,940
	2007	$682,434	$50,133	$173,033	$905,600
10 Year Historic	2008	$774,255	$92,952	$234,851	$1,102,058
	2009	$726,409	$17,592	$81,221	$825,222
	2010	$718,149	$38,806	$443,733	$1,200,688
	2011	$542,853	$89,403	$1,623,457	$2,255,713
	2012	$365,170	$318,545	$478,033	$1,161,748
	2013	$683,406	$41,155	$232,011	$956,572
	2014	$599,652	$90,996	$136,258	$826,906
	2015	$651,367	$24,625	$882,661	$1,558,653
	2016	$359,540	$163,679	$65,817	$589,036
	2017 Est.	$359,540	$163,679	$65,817	$589,036

Table 12
Historic Construction of New Space, New and Additions

Space Construction, New and Additions (m^2) Based on City of Toronto DC Forms as Time of Building Permit Issuance											
		Commercial Space				Mixed Use		Total Commercial and Non-Res. In Mixed Use	Industrial	Institutional	Total
	Year	Office (est. as all non-ground floor commercial)	Commercial (net of office estimate, so mainly retail)	"Residential" (mainly hotels)	Other (mainly inflatable and farm buildings)	Non-Res. In larger buildings (mainly retail and office in apt. buildings)	Non-Res. in low scale (singles,semis and rows)				
8-Year Historic (based on City Building Permit Measures)	2010	12,100	125,200	9,000	8,000	16,100	31,000	201,400	4,900	0	206,300
	2011	43,900	305,800	3,700	12,100	33,100	8,800	407,400	82,400	190,900	680,700
	2012	47,500	211,400	4,400	7,100	33,200	8,100	311,700	52,500	137,700	501,900
	2013	220,500	147,200	11,400	900	19,600	11,500	411,100	97,600	589,200	1,097,900
	2014	40,700	135,100	25,500	1,900	73,200	9,200	285,600	70,800	2,100	358,500
	2015	97,200	106,300	5,500	7,000	23,200	15,100	254,300	63,000	53,100	370,400
	2016	130,900	157,300	2,600	10,100	4,900	300	306,100	38,300	90,500	434,900
	2017 Est.	130,900	157,300	2,600	10,100	4,900	300	306,100	38,300	90,500	434,900
8 Year Average	Annual Average New Space in m^2	90,500	168,200	8,100	7,200	26,000	10,500	310,500	56,000	144,300	521,500

Source: City of Toronto permit data.

Table 13
Forecast Construction of New Space, New and Additions

Space Construction, New and Additions (m^2) Based on City of Toronto DC Forms as Time of Building Permit Issuance, 2018-2027											
		Commercial Space				Mixed Use		Total Commercial and Non-Res. In Mixed Use	Industrial	Institutional	Total
		Office (est. as all non-ground floor commercial)	Commercial (net of office estimate, so mainly retail)	"Residential" (mainly hotels)	Other (mainly inflatable and farm buildings)	Non-Res. In larger buildings (mainly retail and office in apt. buildings)	Non-Res. in low scale (singles,semis and rows)				
10 Year Forecast	Annual Average New Space in m^2	129,200	140,000	10,000	7,200	29,000	12,000	327,400	56,000	100,000	483,400
	Total New Space in m^2	1,292,000	1,400,000	100,000	72,000	290,000	120,000	3,274,000	560,000	1,000,000	4,834,000

Source: Hemson Consulting Ltd. based on City and Statistics Canada data.

Table 14
Forecast Employees in Newly Constructed Space, New and Additions

Employees in New Space Forecast	Employees in New Space, 2018 to 2027									
	Year	Commercial Space				Mixed Use		Total Commercial and Non-Res. In Mixed Use	Industrial	Institutional	Total
		Office (est. as all non-ground floor commercial)	Commercial (net of office estimate, so mainly retail)	"Residential" (mainly hotels)	Other (mainly inflatable and farm buildings)	Non-Res. In larger buildings (mainly retail and office in apt. buildings)	Non-Res. in low scale (singles,semis and rows)				
	Floor Space per Worker (m^2)	20.0	40.0	40.0	100.0	35.0	25.0	28.2	75.0	60.0	34.5
	Total New Space in m^2	1,292,000	1,400,000	100,000	72,000	290,000	120,000	3,274,000	560,000	1,000,000	4,834,000
	Employees	64,700	35,000	2,500	700	8,300	4,800	116,000	7,500	16,700	140,200

Employees in New Space Forecast	Employees in New Space, 2028 to 2041									
	Year	Commercial Space				Mixed Use		Total Commercial and Non-Res. In Mixed Use	Industrial	Institutional	Total
		Office (est. as all non-ground floor commercial)	Commercial (net of office estimate, so mainly retail)	"Residential" (mainly hotels)	Other (mainly inflatable and farm buildings)	Non-Res. In larger buildings (mainly retail and office in apt. buildings)	Non-Res. in low scale (singles,semis and rows)				
	Floor Space per Worker (m^2)	20.0	40.0	40.0	100.0	35.0	25.0	27.5	75.0	60.0	33.5
	Total New Space in m^2	1,519,000	1,423,000	102,000	73,000	295,000	122,000	3,534,000	569,000	1,016,000	5,119,000
	Employees	76,100	35,600	2,600	700	8,400	4,900	128,300	7,600	16,900	152,800

TOTAL

Employees in New Space Forecast	Employees in New Space, 2018 to 2041									
	Year	Commercial Space				Mixed Use		Total Commercial and Non-Res. In Mixed Use	Industrial	Institutional	Total
		Office (est. as all non-ground floor commercial)	Commercial (net of office estimate, so mainly retail)	"Residential" (mainly hotels)	Other (mainly inflatable and farm buildings)	Non-Res. In larger buildings (mainly retail and office in apt. buildings)	Non-Res. in low scale (singles,semis and rows)				
	Floor Space per Worker (m^2)	20.0	40.0	40.0	100.0	35.0	25.0	27.9	75.0	60.0	34.0
	Total New Space in m^2	2,811,000	2,823,000	202,000	145,000	585,000	242,000	6,808,000	1,129,000	2,016,000	9,953,000
	Employees	140,700	70,600	5,100	1,400	16,700	9,700	244,200	15,100	33,600	292,900

Source: Hemson Consulting Ltd. based on City and Statistics Canada data.

Appendix A.2

Transit Ridership Forecast

HEMSON

Appendix A.2

Transit Ridership Forecast

This appendix provides details of the ridership forecast used in the 2018 DC Background Study for the City of Toronto. The forecast method and key assumptions are discussed and the results of the forecasts are presented in the following sections.

A. Requirements of the Development Charges Act

In accordance with the Development Charges Act, Transit services must be based on a "planned level of service" rather than the "10-year historical average level of service". As discussed further in Appendix B.2, for the purposes of determining the "planned level of service" for transit, the City's Transit service development-related capital program have been informed based on existing and proposed capital budget documents, discussions with staff from the City and Toronto Transit Commission (TTC), other long-term planning documents and Council directed initiatives.

In addition, any background study that incorporates Transit services into the calculation must now include the following:

- An assessment of ridership forecast for **all modes** of transit and whether ridership is generated from existing or planned development (O.Reg. 82/98 s.8(2)4).
- An assessment of ridership capacity for **all modes** of transit over the 10-year forecast period (O. Reg. 82/98 s.8(2)4).

The ridership forecast for the purposes of this Background Study has been informed by the City's Planning Division, Transportation Planning Section for 2011, 2031 and 2041. The allocation of ridership for the interim planning years from 2018 to 2027 have been informed based on the DC Background Study shares of population and employment growth.

The results of the forecast are discussed in the following sections.

B. Transit Service Delivery in the City Of Toronto

As demonstrated in Appendix A.1, Toronto has experienced steady population and employment growth which is anticipated to continue over the forecast period. As the City continues to develop, so will the need to provide adequate levels of Transit service. Council has endorsed a number of projects related to street car infrastructure (including vehicle and track related work), higher-order transit projects such as subways and light rail transit (LRTs), and conventional transit in the form of buses.

C. Forecast Methodology and Key Assumptions

The assessment of ridership forecasts for the purposes of the DC Background Study was informed by City Planning ridership model data and discussions with City staff. The current version of the ridership model is state-of-the-art and includes latest generation travel demand and accounts for transit congestion and the overall utility of the system. The utility of the system relates to the ability of riders to actually use the network and whether congestion will influence their travel behaviours. The model was calibrated using the most recent available regional travel behaviour survey, the “2011 Transportation Tomorrow Survey”, an approach used in most ridership forecasts in the region.

The ridership data provided by City’s Planning Division, Transportation Planning Section is based on a ridership model developed and calibrated by the Travel Modelling Group at the University of Toronto and is currently used to analyze and inform the City's major transit infrastructure plans.

The ridership model analysis examined the proposed 2031 transit network which includes the following major transit network improvements:

- Eglinton Crosstown
- Finch West LRT
- Scarborough Subway Extension
- SmartTrack/Regional Express Rail (RER)
- Toronto York Spadina Subway Extension (TYSSE)
- Eglinton East LRT
- Eglinton West LRT
- Waterfront Transit
- Relief Line South

- North Yonge Subway Extension
- Sheppard LRT

Including a comprehensive list of known transit projects over the planning period is reasonable and appropriate as all of these projects directly impact on the overall TTC ridership and the works being considered for DC funding in this Background Study. The TTC plans for and manages the transit service on a system-wide basis in the context of local and regional growth and regional transportation investments.

The ridership analysis relies on population and employment projections for the 2031 and 2041 planning horizons in relation to the proposed 2031 transit network. The population forecast is consistent with Schedule 3 of the Growth Plan for the Greater Horseshoe and the employment forecast is consistent with the City's medium employment scenario with SmartTrack influence.

The forecast details in the following sections include 2011 simulated ridership numbers and 2041 forecast ridership based on outputs from the City's current model. The interim ridership analysis for 2018 (base year), 2027 (end of the ten-year planning period), and 2041 (end of benefitting period) were developed from the population and employment estimates used for the ridership and development forecast for the DC Background Study. Consistent with standard practice, AM peak period ridership from 6 AM to 9 AM has been used for the purposes of the ridership forecast.

The ridership presented in this analysis includes total transit riders, related to origin and destination trips in the City's network, over the identified period. It is not equivalent to transit boarding's. For example, if a rider was to transfer between two different lines, they would be counted as two boarding's, but for the purposes of the AM peak period ridership forecast, are counted here as one rider.

D. Ridership Forecast

As required by the Development Charges Act, the anticipated ridership forecast includes an assessment of all modes (collectively) of transit proposed to be funded by development charges over the forecast period. The forecast includes both bus and rapid rail transit.

1. Anticipated Ridership

Table 1 summarizes the direct ridership model outputs of the AM peak period transit demand for 2011 (2011 network), 2011 (2031 network) and 2041 (2031 network). By applying the proposed 2031 transit network to the anticipated population and employment in 2041, the total AM peak period trips are anticipated to increase from 523,000 in 2011 (base) to 741,000 in 2041 (2031 network).

Table 1: Summary of Ridership Analysis

Scenario	Land Use	Network	AM Peak Period Transit Demand
A	2011	2011 Network	523,000
B	2011	2031 Network	576,000
C	2041	2031 Network	741,000

For the purposes of the DC Background Study analysis, Hemson has utilized the outputs in Table 1 to allocate trips arising from development over the 2011 and 2041 planning period. Item D equals the increased ridership arising from Scenario C less Scenario A as shown in Table 1. In order to determine the share of the ridership related to new development occurring over the planning period, the 2011 (base) scenario was applied to the proposed 2031 network. The difference between Scenario A and Scenario B is 53,000 AM peak period trips. However, recognizing that Scenario B is not a realistic analysis given that the 2031 network would not actually be made available in 2011, item F is intended to reflect that as additional trips arise to 2041, and resulting increased peak period congestion, would result in one-third of the 2011 added base trips (item E) leaving the transit network. As such, the trips identified as being generated by development occurring over the 2011 to 2041 planning period is equal to 183,020 AM peak period trips.

Table 2: Summary of Ridership Growth

	Analysis of Ridership Growth	AM Peak Period Trips
D	**Increased Ridership 2011-2041 (C - A)**	**218,000**
	Trips from 2011 Base (B - A)	
E	Added trips if network improvements available in 2011 (B-A)	53,000
F	Added trips from 2011 existing at 2041, one-third (E*2/3)	34,980
G	**Trips Generated from Growth 2011 to 2041 (D – F)**	**183,020**

The current ridership model cannot produce ridership forecasts for the interim planning years of 2018 and 2027 without extensive modelling and analysis

that cannot be provided for the 2018 DC Background Study. As a result, the anticipated ridership growth for these years were extrapolated using shares of population and employment growth.

Table 3 provides a summary of the population and employment assumptions used for the purposes of allocating the ridership analysis for the 2018 to 2027 period. Different forecast assumptions were applied to the ridership inputs and the development forecast in this DC Background Study. For example, the population input for the ridership forecast uses total population, whereas the development forecast for the DC Background Study uses net population (less Census undercount of approximately three per cent). Similarly, the non-residential input for the ridership forecast does not include no fixed place of work employment but includes work at home, whereas the development forecast for the DC Background Study includes no fixed place of work but excludes work at home.

Although the ridership forecast inputs do not include no fixed place of work, the model still accounts for trips generated by these employment uses. The forecast assumptions used as inputs to the ridership analysis are just one component of the larger ridership model which accounts for transit trips generated by various residential and non-residential users.

For the purposes of extrapolating the interim year targets, the DC forecast was adjusted to match the forecast input assumptions used in the ridership analysis. The 2018 and 2027 residential forecast includes Census undercount and the employment forecast excludes no fixed place of work but includes work at home employment.

Table 3: Summary of Population and Employment

Year	Population	Employment	Total	%
Total Population and Employment				
2011	2,701,405	1,378,975	4,080,380	
2018	2,869,994	1,554,041	4,424,035	
2027	3,107,247	1,642,188	4,749,435	
2041	3,404,635	1,883,580	5,288,215	
Population and Employment Growth				
2011-2018	168,589	175,066	343,655	28%
2018-2027	237,253	88,146	325,399	27%
2027-2041	297,388	241,392	538,780	45%
2011-2041	**703,230**	**504,605**	**1,207,835**	100%

The ridership forecast is then further allocated using the shares of population and employment growth shown in Table 3. As shown in Table 4, the 183,020 AM peak period trips deemed to benefit growth occurring from 2011 to 2041 is then allocated at 28 per cent, or 52,070 trips, to 2011-2018 period, 27 per cent, or 49,307 trips, to the 2018-2027 period, and 45 per cent, or 81,640 trips to the 2027-2041 period.

Table 4: Allocation of Ridership Forecast		
Year	**AM Peak Period Ridership**	**% of Allocation**
Ridership Analysis		
2011 & Earlier	34,980	
2011-2041	183,020	
Total	**218,000**	
Allocation of Ridership		
2011-2018	52,073	28%
2018-2027	49,307	27%
2028-2041	81,640	45%
Total	**183,020**	**100%**

Finally, the allocated trips are then assigned to the various planning periods which is used to allocate the majority of the capital costs related to transit infrastructure in the Transit services capital program. This is discussed further in Table 5 below.

2. Assessment of Ridership Capacity

The proposed transit infrastructure included in the Transit capital program is required to achieve the total AM peak period trips of 183,020 by 2041. However, recognizing that only 49,310 AM peak period transit person trips will be achieved over 2018-2027, a portion of the capital costs have been deemed to be available ridership capacity at the end of the ten-year planning period relating to infrastructure improvements required to achieve the planned level of service to 2041.

E. Transit Development Charges Capital Program Allocations

Table 5 provides a summary of the allocations used to arrive at the benefit to existing, in-period and post-period share calculations for the majority of Transit related projects.

1. Benefit to Existing Share (BTE) and Post-Period Benefit Calculation

Using the scenario's identified in Table 1 and the ridership allocations in Table 4, the benefit to existing share is calculated based on the 2011 (base) trips (34,980) plus the 2011-2018 trips (52,073). In total, this amounts to 87,050 AM peak period trips, or 40 per cent, over the 2011 to 2041 planning horizon.

The post-period benefit is based on the trips identified in Table 4 occurring from 2028 to 2041. In total, 81,640, or 37 per cent of trips are deemed to relate to development occurring beyond the ten-year planning horizon. The remaining portion, 49,310 trips, is related to development occurring within the planning period.

Table 5: Allocations Used for Transit Related Capital Costs

Allocation	Year	AM Peak Period	% of Allocation
Benefit to Existing	2011 + 2011-2018	87,053	40%
In-Period	2018-2027	49,307	23%
Post-Period	2028 and beyond	81,640	37%
	Total	**218,000**	**100%**

Appendix B

Transit Related Services

HEMSON

Appendix B.1

Spadina Subway Extension

HEMSON

Appendix B.1

Spadina Subway Extension
Technical Appendix

This appendix provides a brief outline the 2018–2027 development-related capital program for the Toronto York Spadina Subway Extension (TYSSE), the calculation of the DC and the financing costs. The cost, quantum and timing of the projects identified in the program have been provided by City staff and are based on the Council-approved capital budget, previous DC studies and other long-range planning documents.

The following discusses the individual components included in the Spadina Subway Extension category. The analysis is set out in the tables which follow. The tables include:

Table 1 2018–2027 Development-Related Capital Program and Calculation of the Discounted Growth-Related Net Capital Costs

Table 2 Cash Flow Analysis

A. Planned Level of Service Provisions for TYSSE

With respect to level of service restrictions for TYSSE, the Development Charges Act was amended to state the following:

> **Provision does not apply**
> (2) Paragraph 4 of subsection 5 (1) does not apply in determining the estimate for the increase in the need for the Toronto–York subway extension. 2006, c. 33, Sched. H, s. 2.

The increase in need for service must not be of a size which would result in the level of service exceeding the average provided in the municipality in the preceding ten-year period. As such, an historical level of service calculation is not calculated for the Spadina Subway Extension service. The project, and associated expenditures as approved by Council, is determined to be the "planned level of service" for the purposes of TYSSE.

B. Development-Related Capital Program

The 2018–2027 development-related capital program recovers for the TYSSE. The extension will extend into the City of Vaughan to the proposed Vaughan Metropolitan Centre. In total, six new stations are planned along the 8.6 kilometre route. The original cost identified for TYSSE of $2.63 billion was preliminary and has since been updated to reflect new information. The change was largely the result of a schedule and budget reset which was needed to ensure that the line opened by December 2017. As a result, the revised cost and related increase, as adopted by Council in February 2016[1], has been included in the 2018 DC Background Study calculations. It should be noted that there is nothing in the Development Charges Act or associated regulation that prevents a municipality from updating a cost of a project as better information becomes available.

The total cost of the project is $3,184.17 million and is allocated as follows:

Funding	**$ Share in Millions**
Provincial	$974,000
Federal	$696,999
York Region	$606,000
City of Toronto	$907,169
Total	**$3,184,168**

The City's share of TYSSE is therefore netted down to $907.17 million. This share is expressed as the principle cost of the subway line. The City, however, has issued debt in the form of three sinking funds to help fund the capital costs of the extension. The City has issued debt on the past expenditures and the financing costs related to the three sinking funds amount to $415.00 million. The City also plans to issue additional debt for the

[1] *Council Consideration regarding the TYSSE budget increase can be found here http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.CC12.2*

future forecasted expenditures related to the growth-related in-period 2018-2027 costs of the project.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

In total, approximately 70 per cent of the total project costs will be funded from the federal and provincial levels of government as well as York Region. The net municipal share allocation percentages were arrived at by negotiation between the two jurisdictions.

The upper-level grants subtotal to $1,671.00 million and an additional $606.00 million will be funded by York Region. In total, $2,277.00 million in grants and other recoveries has been identified and applied to the DC capital program.

2. Replacement and Benefit to Existing Shares

Consistent with the treatment of the Transit services capital projects, the ridership forecast discussed in Appendix A.2 has been used to inform the benefit to existing shares for TYSSE. It should be noted that this calculation also include shares of projects that benefits prior growth (e.g. growth that has already occurred). The calculation is based on a point in time and available information. Subsequent studies will review the benefit to existing allocations based on available information at that time.

In total, $362.26 million is identified as the replacement and benefit to existing share.

3. Legislated Ten Per Cent Reduction

No ten per cent reduction is made to the costs for this service as it is not required by the Development Charges Act or associated legislation.

4. Post-2027 Benefit

Consistent with the treatment of the Transit related projects, a portion of the capital program will service development that will not occur until after 2027. This portion of the capital program is deemed to be “pre-built” service capacity and is considered as committed excess capacity to be considered in

future development charges studies. The analysis that supports the post-period share allocations is discussed further in Appendix A.2.

In total, $339.73 million is identified as the post-period benefit share.

5. 2018-2027 DC Eligible Development-Related Costs

After the statutory deductions, the development charge eligible costs that are recovered in-period 2018-2027 is reduced to $205.18 million.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The in-period development-related cost of $205.18 million has been allocated to the benefitting residential and non-residential sectors. The discounted development-related costs have been allocated 71 per cent to residential development and 29 per cent to non-residential. This allocation is based on future shares of net population and employment growth.

Table 1 displays the 71 per cent allocation to the residential sector, or $145.67 million, and 29 per cent to the non-residential sector, or $59.52 million.

Table 1 also displays the calculation of the per capita residential charge for the Toronto-York Spadina Subway Extension. The $145.67 million in discounted development-related net capital costs is allocated to the 252,390 population forecast from new permits issued, yielding an unadjusted per capita charge of $577.15. The non-residential unadjusted charge per square metre is calculated by taking the $59.52 million allocated to the non-residential sector and divided it by 140,200 employees in new space. This yields an unadjusted charge of $424.50 per employee.

E. Sinking Fund Analysis

Sinking fund financing costs have also been included in the analysis and are shown as separate line item. Table 3 provides the detailed cash flow analysis for the Toronto-York Spadina Subway Extension. Sinking fund financing costs, where incorporated, are based on a 30 year term at a rate of 3.25 per

cent. Payments beyond 2027 that relate to development occurring in-period have been present valued to the last year of the planning period (2027).

F. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of DCs. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the DC rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate DC rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee DCs. After cash flow consideration, the residential calculated charge increases to $720.03 per capita. The non-residential charge after cash flow increases to $531.09 per employee.

The following table summarizes the calculation of the Spadina Subway Extension services DC.

SPADINA SUBWAY EXTENSION SUMMARY

2018 - 2027 Development-Related Capital Program		Unadjusted Development Charge		**Adjusted Development Charge**	
Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$3,184,168,477	$907,168,608	$576.24	$424.50	**$720.03**	**$531.09**

APPENDIX B.1
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SPADINA SUBWAY EXTENSION

Project Description	Timing	Gross Project Cost [1]	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs			Total Development Related Costs	Allocation to Period	
					BTE[2] %	Replacement & BTE Shares	0% Reduction		2018-2027	Post 2027
1 SPADINA SUBWAY EXTENSION										
1.1 Spadina Subway Extension										
1.1.1 Spadina Subway Extension	2018 - 2027	$3,184,168,477	$2,276,999,869	$ 907,168,608	40%	$ 362,255,729	$ -	$ 544,912,879	$ 205,182,397	$ 339,730,482
Subtotal Spadina Subway Extension		$3,184,168,477	$2,276,999,869	$ 907,168,608		$ 362,255,729	$ -	$ 544,912,879	$ 205,182,397	$ 339,730,482
TOTAL SPADINA SUBWAY EXTENSION		**$3,184,168,477**	**$2,276,999,869**	**$907,168,608**		**$ 362,255,729**	**$ -**	**$ 544,912,879**	**$ 205,182,397**	**$ 339,730,482**

1 Capital program does not include cash flow or financing assumptions
2 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Principle Costs	71.0%	$145,667,141
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$576.24**
Large Apartment	2.30	$1,325
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Principle Costs	29.0%	$59,515,256
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$424.50**

Allocation of Ridership Growth		
	Ridership	**Share**
BTE: 2011 + 2011-2018	87,053	40%
Ridership Growth 2018-2027	49,307	23%
Ridership Capacity at 2028	81,640	37%
Total	**218,000**	100%

APPENDIX B.1
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SPADINA SUBWAY EXTENSION
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

SPADINA SUBWAY EXTENSION	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	$3,475.6	$14,362.9	$26,833.6	$39,156.6	$52,302.4	$66,307.7	$81,210.6	$97,050.6	$112,838.7	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- TYSSE Sinking Fund Payments (1)	$16,104.3	$8,052.1	$8,052.1	$8,052.1	$8,052.1	$8,052.1	$8,052.1	$8,052.1	$8,052.1	$134,297.2	**$214,818.6**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$19,520.1	$18,632.6	$19,814.3	$19,240.2	$19,625.0	$20,017.5	$20,417.8	$20,826.2	$20,230.3	$20,635.0	**$198,958.9**
INTEREST											
- Interest on Opening Balance	$0.0	$121.6	$502.7	$939.2	$1,370.5	$1,830.6	$2,320.8	$2,842.4	$3,396.8	$3,949.4	**$17,273.9**
- Interest on In-year Transactions	$59.8	$185.2	$205.8	$195.8	$202.5	$209.4	$216.4	$223.5	$213.1	($3,125.7)	**($1,414.2)**
TOTAL REVENUE	$19,579.9	$18,939.4	$20,522.8	$20,375.1	$21,198.0	$22,057.5	$22,955.0	$23,892.1	$23,840.2	$21,458.6	**$214,818.6**
CLOSING CASH BALANCE	$3,475.6	$14,362.9	$26,833.6	$39,156.6	$52,302.4	$66,307.7	$81,210.6	$97,050.6	$112,838.7	($0.0)	

(1) Sinking Fund Payments are not inflated

2018 Adjusted Charge Per Capita	**$720.03**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.1
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SPADINA SUBWAY EXTENSION
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

SPADINA SUBWAY EXTENSION	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.00	$881.26	$5,292.32	$10,012.33	$15,055.17	$20,435.32	$26,167.78	$32,268.17	$38,752.72	$45,638.27	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- TYSSE Sinking Fund Payments	$6,579.7	$3,289.9	$3,289.9	$3,289.9	$3,289.9	$3,289.9	$3,289.9	$3,289.9	$3,289.9	$54,869.9	**$87,768.5**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$7,445.8	$7,594.7	$7,746.6	$7,901.6	$8,059.6	$8,220.8	$8,385.2	$8,552.9	$8,724.0	$8,898.5	**$81,529.8**
INTEREST											
- Interest on Opening Balance	$0.0	$30.8	$185.2	$350.4	$526.9	$715.2	$915.9	$1,129.4	$1,356.3	$1,597.3	**$6,807.6**
- Interest on In-year Transactions	$15.2	$75.3	$78.0	$80.7	$83.5	$86.3	$89.2	$92.1	$95.1	($1,264.2)	**($568.9)**
TOTAL REVENUE	$7,461.0	$7,700.9	$8,009.9	$8,332.7	$8,670.0	$9,022.3	$9,390.3	$9,774.4	$10,175.4	$9,231.6	**$87,768.5**
CLOSING CASH BALANCE	$881.3	$5,292.3	$10,012.3	$15,055.2	$20,435.3	$26,167.8	$32,268.2	$38,752.7	$45,638.3	($0.0)	

(1) Sinking Fund Payments are not inflated

2018 Adjusted Charge Per Employee	**$531.09**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix B.2

Transit

HEMSON

Appendix B.2

Transit
Technical Appendix

The Toronto Transit Commission (TTC) is responsible for the provision of transit buses, streetcars and rapid transit services throughout the City.

This appendix provides an outline the 2018–2027 development-related capital program, the calculation of the "unadjusted" DC, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the program have been provided by City staff and are based on sources including the current and proposed capital budgets, previous DC studies and other long-range planning documents.

The following discusses the individual components included in the transit category. The analysis is set out in the tables which follow. The tables include:

Table 1 2018–2027 Development-Related Capital Program and Calculation of the Discounted Growth-Related Net Capital Costs

Table 2 Cash Flow Analysis

A. Planned Level of Service

The Development Charges Act (s.5.2 (3)) requires that in estimating the increase in need for Transit services the increased need “shall not exceed the planned level of service over the 10-year period immediately following the preparation of the background study”. For the purposes of the development charge calculations, the “planned level of service” is considered the ten-year development-related capital program (2018-2027) in the Development Charges Background Study, as informed by the City’s current and proposed capital budgets, long range plans and discussions with City and TTC staff. Through its approval of the Background Study and the related underlying capital program, Council has indicated that it intends to ensure that the increase in need in Transit service will be met.

Other Background Study requirements for Transit, including the assessment of Transit ridership, is contained in Appendix A.1, and the asset management plan requirement is contained in Appendix F.

B. Description of Projects Included In The Capital Program

Table 1 provides detailed on the 2018-2027 development-related capital program for Transit services. The capital program includes projects associated with the development streetcar related infrastructure, higher order transit, conventional transit and other equipment. As permitted by the Development Charges Act, the Transit capital program also includes for the recovery of past commitments as well as debt and finance related costs.

1. Streetcar Related Infrastructure

The first category in the Transit capital program includes streetcar related infrastructure such as surface tracks, yards and roads, building and structures, new streetcars, shop equipment and other maintenance vehicles.

2. Higher-Order Transit (Subway and Light Rail Transit)

The capital program also includes a provision for higher-order transit including subways and light rail transit (LRT) infrastructure. Such projects include the Scarborough Subway Extension, Sheppard Subway, Union Station Revitalization, Waterfront Transit and corporate initiatives related to the planning, design, engineering and construction of higher-order transit projects. Other projects include the Eglington East LRT (Increment above Scarborough Subway), station upgrades, the Downtown Relief Line and Union Station Second Platform.

Signalization improvements for subways are also included in this category. Building and structures related to the capacity improvements for stations and the construction of bridges to support LRT infrastructure in the Port Lands is identified.

This category also includes for the purchase of new subways and related shop and maintenance equipment.

3. Conventional Transit (Buses)

The projects identified in the conventional transit category relate to fleet, buildings and structures and equipment for the TTCs bus fleet. Non-revenue vehicles are also identified in this category.

4. General Equipment

General equipment includes communications, revenue and fair handling, maintenance and fare system equipment. This category relates to the overall delivery of the City's transit system.

5. Service Planning

Finally, service planning relates to projects, studies and other infrastructure used to plan and deliver Transit services. This includes environmental assessments, platform modifications to accommodate articulated buses and opportunities to improve transit priority measures.

C. Calculation of Discounted Development-Related Capital Costs

The total gross cost of the Transit capital program amounts to $21,484.17 million.

1. Grants, Subsidies and Other Recoveries

Grants, subsidies and other recoveries include funding providing by the provincial and federal government to support the City's transit initiatives. For large projects such as the Eglinton East LRT, Waterfront Transit "Reset", and the Relief Line South an assumption of 80 per cent grant funding has been assumed for these projects.

In total, $9,988.26 million in grants is identified and applied to the DC capital program.

2. Replacement and Benefit to Existing Shares

The ridership forecast discussed in Appendix A.2 has been used to inform the benefit to existing shares for many of the identified projects. It should be noted that this calculation also include shares of projects that benefits prior growth (e.g. growth that has already occurred). The calculation is based on a

point in time and available information. Subsequent studies will review the benefit to existing allocations based on available information at that time.

For certain projects, such as the rolling stock associated with streetcars, higher-order transit and conventional bus transit, have been examined on a project-by-project basis. The replacement of existing streetcars and subways have been based on existing and future capacity of the new cars and trains. For conventional buses, the vehicles identified in the capital program are net new purchases and as such are treated as 100 per cent growth related.

The benefit to existing share for Sheppard Subway is based on the benefit to existing share identified in previous DC background studies. As this project has been open and accessible to the public for a number of years, a smaller portion of the project is deemed to benefit growth over the 2018-2027 planning period.

In total, $5,991.24 million is identified as the replacement and benefit to existing share.

3. Legislated Ten per cent Reduction

It should be noted that under the amended Development Charges Act, Transit is now a service for which the ten per cent statutory reduction no longer applies. As such, no reductions have been made to this service.

4. Prior Growth

Prior growth relates to portions of projects which have had DCs collected and applied against a portion of the DC eligible project costs. These amounts are removed from the capital program and not brought forward into the development charge calculation.

In total, $73.01 million in prior growth shares relate to DCs collected prior to 2018 that have been applied against the Sheppard Subway project. A further $25.49 million was identified and removed from the Union Station Platform and Queens Quay (Bay to Small Street) project costs.

5. Post-2027 Benefit

For most of the Transit investments, a portion of the capital program will service development that will not occur until after 2027. This portion of the capital program is deemed to be “pre-built” service capacity and is considered as committed excess capacity to be considered in future development

charges studies. The analysis that supports the post-period share allocations is discussed further in Appendix A.2.

Projects that have not been allocated using shares of ridership, such as the replacement of existing rolling stock and Sheppard Subway, do not have post-period benefitting shares as the remaining costs of these projects are deemed to benefit growth occurring over the 2018-2027 planning period.

In total, $2,893.19 million is identified as the post-period benefit share.

6. 2018-2027 DC Eligible Development-Related Costs

After the statutory deductions, the development charge eligible costs that are recovered in-period 2018-2027 is reduced to $2,512.97 million.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The in-period development-related cost of $2,512.97 million has been allocated to the benefitting residential and non-residential sectors. The discounted development-related costs have been allocated 71 per cent to residential development and 29 per cent to non-residential. This allocation is based on future shares of net population and employment growth.

Table 2 displays the 71 per cent allocation to the residential sector, or $1,784.06 million, and 29 per cent to the non-residential sector, or $728.91 million.

Table 2 also displays the calculation of the unadjusted per capita residential charge for Transit. The $1,784.06 million in discounted development-related net capital costs is allocated to the 252,790 population forecast from new permits issued, yielding a per capita charge of $7,057.47 before cash flow adjustments.

The non-residential unadjusted charge per square metre is calculated by taking the $728.91 million allocated to the non-residential sector and dividing it by 140,200 employees in new space. This yields an unadjusted charge of $5,199.09 per employee.

E. Sinking Fund Analysis

Sinking fund financing costs have also been included in the analysis for both Scarborough Subway Extension and Sheppard Subway Extension; these costs are shown as separate line items. Table 3 provides the detailed cash flow analysis for the Transit calculations, including Scarborough Subway Extension and Sheppard Subway. Sinking fund financing costs, where incorporated, are based on a 30 year term at a rate of 3.25 per cent. Payments beyond 2027 that relate to development occurring in-period have been present valued to the last year of the planning period (2027).

F. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of DCs. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the DC rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate DC rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee DCs. After cash flow consideration, the residential calculated charge increases to $7,699.66 per capita. The non-residential charge after cash flow increases to $5,689.14 per employee.

The following table summarizes the calculation of the Transit services DC.

TRANSIT (BALANCE)					
2018 - 2027		Unadjusted		**Adjusted**	
Development-Related Capital Program		Development Charge		**Development Charge**	
Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$21,484,166,674	$2,512,969,269	$7,057.47	$5,199.09	**$7,699.66**	**$5,689.14**

APPENDIX B.2
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
TRANSIT (BALANCE)

Project Description	Timing	Gross Project Cost [1]	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: BTE[2] %	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Growth	Development Related Costs: 2018-2027	Development Related Costs: Post 2027
2.0 TRANSIT (BALANCE)											
2.1 STREETCAR RELATED INFRASTRUCTURE											
2.1.1 Surface Track											
2.1.1.1 King/Queen/Roncesvalles Modifications	2018 - 2019	$ 8,310,000	$ -	$ 8,310,000	40%	$ 3,318,000	$ -	$ 4,992,000	$ -	$ 1,879,943	$ 3,112,057
Subtotal Surface Track		$ 8,310,000	$ -	$ 8,310,000		$ 3,318,000	$ -	$ 4,992,000	$ -	$ 1,879,943	$ 3,112,057
2.1.2 Yards & Roads											
2.1.2.1 Streetcar Network Upgrades for LRV	2018 - 2020	$ 76,051,000	$ -	$ 76,051,000	40%	$ 30,369,000	$ -	$ 45,682,000	$ -	$ 17,201,249	$ 28,480,751
2.1.2.2 TTC Streetcar Shelter Reconstruction	2018 - 2027	$ 4,050,000	$ -	$ 4,050,000	40%	$ 1,617,000	$ -	$ 2,433,000	$ -	$ 916,294	$ 1,516,706
Subtotal Yards & Roads		$ 80,101,000	$ -	$ 80,101,000		$ 31,986,000	$ -	$ 48,115,000	$ -	$ 18,117,543	$ 29,997,457
2.1.3 Buildings & Structures											
2.1.3.1 Leslie Barns	2018 - 2019	$ 523,489,000	$ -	$ 523,489,000	40%	$ 209,043,000	$ -	$ 314,446,000	$ -	$ 118,401,771	$ 196,044,229
2.1.3.2 LRV Carhouse Facility Renewal Program	2018 - 2027	$ 91,640,000	$ -	$ 91,640,000	40%	$ 36,594,000	$ -	$ 55,046,000	$ -	$ 20,727,240	$ 34,318,760
Subtotal Buildings & Structures		$ 615,129,000	$ -	$ 615,129,000		$ 245,637,000	$ -	$ 369,492,000	$ -	$ 139,129,011	$ 230,362,989
2.1.4 Purchase of Streetcars											
2.1.4.1 Purchase of 204 Streetcars - Replacement	2018 - 2020	$ 1,186,503,000	$ -	$ 1,186,503,000	68%	$ 809,087,000	$ -	$ 377,416,000	$ -	$ 377,416,000	$ -
2.1.4.2 Purchase of 60 Streetcars - New	2018 - 2021	$ 360,885,000	$ -	$ 360,885,000	40%	$ 144,111,000	$ -	$ 216,774,000	$ -	$ 81,624,223	$ 135,149,777
Subtotal Purchase of Streetcars		$ 1,547,388,000	$ -	$ 1,547,388,000		$ 953,198,000	$ -	$ 594,190,000	$ -	$ 459,040,223	$ 135,149,777
2.1.5 Shop Equipment											
2.1.5.1 Street Car Carhouse Shop Equipment	2018 - 2027	$ 4,766,000	$ -	$ 4,766,000	40%	$ 1,903,000	$ -	$ 2,863,000	$ -	$ 1,078,155	$ 1,784,845.1
Subtotal Shop Equipment		$ 4,766,000	$ -	$ 4,766,000		$ 1,903,000	$ -	$ 2,863,000		$ 1,078,155	$ 1,784,845
2.1.6 Other Maintenance Equipment											
2.1.6.1 Streetcar Department Equipment	2018 - 2027	$ 7,555,000	$ -	$ 7,555,000	40%	$ 3,017,000	$ -	$ 4,538,000	$ -	$ 1,708,687	$ 2,829,313
Subtotal Other Maintenance Equipment		$ 7,555,000	$ -	$ 7,555,000		$ 3,017,000	$ -	$ 4,538,000		$ 1,708,687	$ 2,829,313
2.2 HIGHER-ORDER TRANSIT (SUBWAYS and LRT)											
2.2.1 Scarborough Subway Extension											
2.2.1.1 Scarborough Subway	2018 - 2027	$ 3,305,000,000	$ 2,523,504,000	$ 781,496,000	40%	$ 312,071,000	$ -	$ 469,425,000	$ -	$ 176,758,333	$ 292,666,667
2.2.1.2 SRT Life Extension - Facilities, Equipment & Vehicles	2018 - 2026	$ 132,000,000	$ 53,354,000	$ 78,646,000	100%	$ 78,646,000	$ -	$ -	$ -	$ -	$ -
2.2.1.3 SRT Decommissioning & Demolition	2026 - 2027	$ 123,000,000	$ 73,138,000	$ 49,862,000	100%	$ 49,862,000	$ -	$ -	$ -	$ -	$ -
Subtotal Scarborough Subway Extension		$ 3,560,000,000	$ 2,649,996,000	$ 910,004,000		$ 440,579,000	$ -	$ 469,425,000		$ 176,758,333	$ 292,666,667
2.2.2 Sheppard Subway											
2.2.2.1 Sheppard Subway	2018 - 2027	$ 384,914,238	$ -	$ 384,914,238	70%	$ 269,440,000	$ -	$ 115,474,238	$ 73,008,842	$ 42,465,396	$ -
Subtotal Sheppard Subway		$ 384,914,238	$ -	$ 384,914,238		$ 269,440,000	$ -	$ 115,474,238	$ 73,008,842	$ 42,465,396	$ -
2.2.3 Planning and Design Studies											
2.2.3.1 Transit Expansion Initiatives	2018 - 2018	$ 1,500,000	$ -	$ 1,500,000	40%	$ 599,000	$ -	$ 901,000	$ -	$ 339,257	$ 561,743
2.2.3.2 CCOO - Union Station	2018 - 2018	$ 1,500,000	$ 750,000	$ 750,000	40%	$ 299,000	$ -	$ 451,000	$ -	$ 170,128	$ 280,872
2.2.3.3 CCOO - Real Time Transit Screens	2018 - 2018	$ 60,000	$ 30,000	$ 30,000	40%	$ 12,000	$ -	$ 18,000	$ -	$ 6,765	$ 11,235
2.2.3.4 Ontario Place / Exhibition Place	2018 - 2018	$ 900,000	$ 450,000	$ 450,000	40%	$ 180,000	$ -	$ 270,000	$ -	$ 101,477	$ 168,523
2.2.3.5 Waterfront Transit (Planning, Design and Engineering)	2018 - 2018	$ 3,600,000	$ 1,800,000	$ 1,800,000	40%	$ 719,000	$ -	$ 1,081,000	$ -	$ 406,908	$ 674,092
2.2.3.6 Relief Line South (Planning, Design and Engineering)	2018 - 2018	$ 55,520,000	$ 27,760,000	$ 27,760,000	40%	$ 11,085,000	$ -	$ 16,675,000	$ -	$ 6,279,007	$ 10,395,993
Subtotal Planning and Design Studies		$ 63,080,000	$ 30,790,000	$ 32,290,000		$ 12,894,000	$ -	$ 19,396,000	$ -	$ 7,303,543	$ 12,092,457
2.2.4 GO Transit											
2.2.4.1 Go Transit Ten-Year Expansion Program	2018 - 2018	$ 60,000,000	$ -	$ 60,000,000	40%	$ 23,960,000	$ -	$ 36,040,000	$ -	$ 13,570,275	$ 22,469,725
Subtotal GO Transit		$ 60,000,000	$ -	$ 60,000,000		$ 23,960,000	$ -	$ 36,040,000	$ -	$ 13,570,275	$ 22,469,725

APPENDIX B.2
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
TRANSIT (BALANCE)

Project Description	Timing	Gross Project Cost [1]	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: BTE[2] %	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Growth	Development Related Costs: 2018-2027	Development Related Costs: Post 2027
2.2.5 Development-Related Higher Order Projects											
2.2.5.1 Eglinton East LRT	2018 - 2027	$ 1,832,000,000	$ 1,465,600,000	$ 366,400,000	40%	$ 146,313,000	$ -	$ 220,087,000	$ -	$ 82,871,881	$ 137,215,119
2.2.5.2 Waterfront Transit "Reset"	2018 - 2027	$ 1,133,763,440	$ 901,601,461	$ 232,161,979	40%	$ 92,708,000	$ -	$ 139,453,979	$ -	$ 52,510,383	$ 86,943,596
2.2.5.3 Queens Quay (Bay to Small street)	2018 - 2023	$ 159,328,560	$ 3,929,671	$ 155,398,889	40%	$ 62,055,000	$ -	$ 93,343,889	$ 5,000,000	$ 30,147,718	$ 58,196,171
2.2.5.4 Queens Quay (Small to Cherry incls. Parliament infill; realignment of Parliament)	2018 - 2022	$ 101,908,000	$ 1,479,620	$ 100,428,380	40%	$ 40,104,000	$ -	$ 60,324,380	$ -	$ 22,714,412	$ 37,609,968
2.2.5.5 Queens Quay (Spadina to Bay)	2018 - 2021	$ 4,764,612	$ -	$ 4,764,612	40%	$ 1,903,000	$ -	$ 2,861,612	$ -	$ 1,077,287	$ 1,784,325
2.2.5.6 Warden Station - AODA	2018 - 2027	$ 68,000,000	$ 45,560,000	$ 22,440,000	40%	$ 8,961,000	$ -	$ 13,479,000	$ -	$ 5,075,323	$ 8,403,677
2.2.5.7 Islington Station - AODA	2018 - 2027	$ 77,000,000	$ 51,590,000	$ 25,410,000	40%	$ 10,147,000	$ -	$ 15,263,000	$ -	$ 5,747,072	$ 9,515,928
2.2.5.8 Relief Line South	2021 - 2027	$ 3,561,035,000	$ 2,848,828,000	$ 712,207,000	40%	$ 284,403,000	$ -	$ 427,804,000	$ -	$ 161,085,746	$ 266,718,254
2.2.5.9 Smart Track	2018 - 2026	$ 3,324,100,000	$ 1,526,700,000	$ 1,797,400,000	40%	$ 717,748,000	$ -	$ 1,079,652,000	$ -	$ 406,533,945	$ 673,118,055
2.2.5.10 Union Station Second Platform	2018 - 2018	$ 138,281,224	$ 80,067,802	$ 58,213,422	40%	$ 23,246,000	$ -	$ 34,967,422	$ 20,494,705	$ 14,472,717	$ -
Subtotal Development-Related Higher Order Projects		$ 10,400,180,836	$ 6,925,356,554	$ 3,474,824,282		$ 1,387,588,000	$ -	$ 2,087,236,282	$ 25,494,705	$ 782,236,482	$ 1,279,505,095
2.2.6 Signal Systems											
2.2.6.1 YUS ATC Resignalling	2018 - 2021	$ 562,836,000	$ -	$ 562,836,000	40%	$ 224,755,000	$ -	$ 338,081,000	$ -	$ 127,301,500	$ 210,779,500
2.2.6.2 Bloor-Danforth ATC Resignalling	2018 - 2027	$ 300,675,000	$ -	$ 300,675,000	40%	$ 120,067,000	$ -	$ 180,608,000	$ -	$ 68,006,592	$ 112,601,408
Subtotal Signal Systems		$ 863,511,000	$ -	$ 863,511,000		$ 344,822,000	$ -	$ 518,689,000	$ -	$ 195,308,092	$ 323,380,908
2.2.7 Finishes											
2.2.7.1 Interchange Station Rehabilitation - Eglinton Crosstown LRT - Study	2018 - 2018	$ 200,000	$ -	$ 200,000	40%	$ 80,000	$ -	$ 120,000	$ -	$ 45,101	$ 74,899
Subtotal Finishes		$ 200,000	$ -	$ 200,000		$ 80,000	$ -	$ 120,000	$ -	$ 45,101	$ 74,899
2.2.8 Buildings & Structures											
2.2.8.1 Yonge - Bloor Capacity Improvements Conceptual Design & Alignment	2018 - 2018	$ 6,000,000	$ -	$ 6,000,000	40%	$ 2,396,000	$ -	$ 3,604,000	$ -	$ 1,357,028	$ 2,246,972
2.2.8.2 Station Capacity Study for Increased Passenger Demand	2018 - 2018	$ 600,000	$ -	$ 600,000	40%	$ 240,000	$ -	$ 360,000	$ -	$ 135,303	$ 224,697
2.2.8.3 Union Station New Platform	2018 - 2018	$ 18,000,000	$ -	$ 18,000,000	40%	$ 7,188,000	$ -	$ 10,812,000	$ -	$ 4,071,083	$ 6,740,917
2.2.8.4 Union Station Revitalization	2018 - 2018	$ 750,700,000	$ 358,600,000	$ 392,100,000	40%	$ 156,576,000	$ -	$ 235,524,000	$ -	$ 88,684,349	$ 146,839,651
2.2.8.5 New Subway Maintenance and Storage Facility	2018 - 2018	$ 120,000,000	$ -	$ 120,000,000	40%	$ 47,919,000	$ -	$ 72,081,000	$ -	$ 27,141,550	$ 44,939,450
2.2.8.7 Stations Transformation	2018 - 2026	$ 50,816,000	$ -	$ 50,816,000	40%	$ 20,292,000	$ -	$ 30,524,000	$ -	$ 11,493,641	$ 19,030,359
Subtotal Buildings & Structures		$ 946,116,000	$ 358,600,000	$ 587,516,000		$ 234,611,000	$ -	$ 352,905,000	$ -	$ 132,882,953	$ 220,022,047
2.2.9 Purchase of Subway Cars and LRT											
2.2.9.1 Replacement of 126 H6 Subway Cars	2018 - 2018	$ 294,953,000	$ -	$ 294,953,000	100%	$ 294,953,000	$ -	$ -	$ -	$ -	$ -
2.2.9.2 Purchase of 60 New Subway Cars (Ridership Growth and ATC)	2018 - 2018	$ 222,170,000	$ -	$ 222,170,000	40%	$ 88,718,000	$ -	$ 133,452,000	$ -	$ 50,250,354	$ 83,201,646
2.2.9.3 Purchase of 372 New Subway Cars (T1 Replacement)	2018 - 2027	$ 1,416,247,000	$ -	$ 1,416,247,000	98%	$ 1,380,983,000	$ -	$ 35,264,000	$ -	$ 35,264,000	$ -
2.2.9.4 Rolling Stock - LRT	2026 - 2027	$ 3,076,720	$ -	$ 3,076,720	40%	$ 1,229,000	$ -	$ 1,847,720	$ -	$ 695,502	$ 1,152,218
2.2.9.5 Ridership Growth for YUS & BD	2027 - 2027	$ 69,784,000	$ -	$ 69,784,000	40%	$ 27,867,000	$ -	$ 41,917,000	$ -	$ 15,783,212	$ 26,133,788
Subtotal Purchase of Subway Cars		$ 2,006,230,720	$ -	$ 2,006,230,720		$ 1,793,750,000	$ -	$ 212,480,720	$ -	$ 101,993,069	$ 110,487,651
2.2.10 Shop Equipment											
2.2.10.1 Greenwood Shop/Subway/SRT Car Carhouse Shop Equipment	2018 - 2027	$ 16,983,000	$ -	$ 16,983,000	40%	$ 6,782,000	$ -	$ 10,201,000	$ -	$ 3,840,944	$ 6,360,056
Subtotal Shop Equipment		$ 16,983,000	$ -	$ 16,983,000		$ 6,782,000	$ -	$ 10,201,000	$ -	$ 3,840,944	$ 6,360,056
2.2.11 Other Maintenance Equipment											
2.2.11.1 Subway Infrastructure Department Equipment	2018 - 2027	$ 8,493,000	$ -	$ 8,493,000	40%	$ 3,391,000	$ -	$ 5,102,000	$ -	$ 1,921,410	$ 3,180,590
2.2.11.2 Station Services Equipment	2018 - 2027	$ 1,694,000	$ -	$ 1,694,000	40%	$ 676,000	$ -	$ 1,018,000	$ -	$ 383,605	$ 634,395
Subtotal Other Maintenance Equipment		$ 10,187,000	$ -	$ 10,187,000		$ 4,067,000	$ -	$ 6,120,000	$ -	$ 2,305,015	$ 3,814,985
2.3 CONVENTIONAL TRANSIT (BUSES)											
2.3.1 Equipment											
2.3.1.1 Bus Hoists	2018 - 2022	$ 74,181,000	$ 1,910,000	$ 72,271,000	40%	$ 28,860,000	$ -	$ 43,411,000	$ -	$ 16,345,842	$ 27,065,158
Subtotal Equipment		$ 74,181,000	$ 1,910,000	$ 72,271,000		$ 28,860,000	$ -	$ 43,411,000	$ -	$ 16,345,842	$ 27,065,158

APPENDIX B.2
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
TRANSIT (BALANCE)

Project Description	Timing	Gross Project Cost [1]	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
					BTE[2] %	Replacement & BTE Shares	0% Reduction		Prior Growth	2018-2027	Post 2027
2.3.2 Buildings & Structures											
2.3.2.1 McNicoll Bus Garage	2018 - 2021	$ 181,000,000	$ -	$ 181,000,000	40%	$ 72,278,000	$ -	$ 108,722,000	$ -	$ 40,938,330	$ 67,783,670
2.3.2.2 Surface Way Buildings Replacement	2018 - 2019	$ 38,760,000	$ 16,584,500	$ 22,175,500	40%	$ 8,855,000	$ -	$ 13,320,500	$ -	$ 5,015,877	$ 8,304,623
2.3.2.3 Building Extensions for New Articulated Hoists Study	2018 - 2018	$ 114,000	$ -	$ 114,000	40%	$ 46,000	$ -	$ 68,000	$ -	$ 25,308	$ 42,692
2.3.2.4 Victoria Park Bus Terminal Replacement	2018 - 2018	$ 36,713,000	$ -	$ 36,713,000	40%	$ 14,660,000	$ -	$ 22,053,000	$ -	$ 8,304,150	$ 13,748,850
2.3.2.5 Wheel-Trans 10-Yr Transformation Program	2018 - 2021	$ 42,507,000	$ -	$ 42,507,000	40%	$ 16,974,000	$ -	$ 25,533,000	$ -	$ 9,614,323	$ 15,918,677
2.3.2.6 Bus Maintenance Facility	2018 - 2019	$ 11,500,000	$ -	$ 11,500,000	40%	$ 4,592,000	$ -	$ 6,908,000	$ -	$ 2,601,303	$ 4,306,697
Subtotal Buildings & Structures		$ 310,594,000	$ 16,584,500	$ 294,009,500		$ 117,405,000	$ -	$ 176,604,500	$ -	$ 66,499,291	$ 110,105,209
2.3.3 Purchase of Buses											
2.3.3.1 Purchase of Buses - Regular 40 ft (278 New Buses)	2019 - 2027	$ 262,889,880	$ -	$ 262,889,880	0%	$ -	$ -	$ 262,889,880	$ -	$ 262,889,880	$ -
2.3.3.2 Purchase of Buses - Articulated Buses (38 New Buses)	2021 - 2021	$ 36,100,000	$ -	$ 36,100,000	0%	$ -	$ -	$ 36,100,000	$ -	$ 36,100,000	$ -
Subtotal Purchase of Buses		$ 298,989,880	$ -	$ 298,989,880		$ -	$ -	$ 298,989,880	$ -	$ 298,989,880	$ -
2.3.4 Purchase of Automotive Non-Revenue Vehicles											
2.3.4.1 Automotive Non-Revenue Vehicles Purchase - Additions (92 Vehicles)	2018 - 2027	$ 8,455,000	$ -	$ 8,455,000	40%	$ 3,376,000	$ -	$ 5,079,000	$ -	$ 1,912,641	$ 3,166,359
Subtotal Purchase of Automotive Non-Revenue Vehicles		$ 8,455,000	$ -	$ 8,455,000		$ 3,376,000	$ -	$ 5,079,000	$ -	$ 1,912,641	$ 3,166,359
2.4 GENERAL EQUIPMENT											
2.4.1 Communications Equipment											
2.4.1.1 SCADA RTU Upgrades	2018 - 2027	$ 8,198,000	$ -	$ 8,198,000	40%	$ 3,274,000	$ -	$ 4,924,000	$ -	$ 1,853,887	$ 3,070,113
Subtotal Communications Equipment		$ 8,198,000	$ -	$ 8,198,000		$ 3,274,000	$ -	$ 4,924,000	$ -	$ 1,853,887	$ 3,070,113
2.4.2 Revenue & Fare Handling Equipment											
2.4.2.1 Turnstile Replacement - Faregates	2018 - 2018	$ 60,856,000	$ -	$ 60,856,000	40%	$ 24,301,000	$ -	$ 36,555,000	$ -	$ 13,764,707	$ 22,790,293
Subtotal Revenue & Fare Handling Equipment		$ 60,856,000	$ -	$ 60,856,000		$ 24,301,000	$ -	$ 36,555,000	$ -	$ 13,764,707	$ 22,790,293
2.4.3 Other Maintenance Equipment											
2.4.3.1 Plant Maintenance Department Equipment	2018 - 2027	$ 7,731,000	$ -	$ 7,731,000	40%	$ 3,087,000	$ -	$ 4,644,000	$ -	$ 1,748,776	$ 2,895,224
2.4.3.2 Revenue Operations Maintenance Equipment	2018 - 2027	$ 354,000	$ -	$ 354,000	40%	$ 141,000	$ -	$ 213,000	$ -	$ 80,429	$ 132,571
Subtotal Other Maintenance Equipment		$ 8,085,000	$ -	$ 8,085,000		$ 3,228,000	$ -	$ 4,857,000	$ -	$ 1,829,205	$ 3,027,795
2.4.4 Fare System											
2.4.4.1 TTC-PRESTO Project	2018 - 2018	$ 47,612,000	$ -	$ 47,612,000	40%	$ 19,013,000	$ -	$ 28,599,000	$ -	$ 10,768,524	$ 17,830,476
Subtotal Fare System		$ 47,612,000	$ -	$ 47,612,000		$ 19,013,000	$ -	$ 28,599,000	$ -	$ 10,768,524	$ 17,830,476

APPENDIX B.2
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
TRANSIT (BALANCE)

Project Description	Timing	Gross Project Cost [1]	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
					BTE[2] %	Replacement & BTE Shares	0% Reduction		Prior Growth	2018-2027	Post 2027
2.5 SERVICE PLANNING											
2.5.1 Service Planning											
2.5.1.1 Delivery of Growth-Related Capital Program	2018 - 2027	$ 2,000,000	$ -	$ 2,000,000	0%	$ -	$ -	$ 2,000,000	$ -	$ 2,000,000	$ -
2.5.1.2 Transit Priorities	2018 - 2027	$ 30,783,000	$ -	$ 30,783,000	40%	$ 12,292,000	$ -	$ 18,491,000	$ -	$ 6,962,908	$ 11,528,092
2.5.1.3 Construct BRT Lines on the Avenues - Enviromental Assessment	2018 - 2019	$ 2,711,000	$ -	$ 2,711,000	40%	$ 1,083,000	$ -	$ 1,628,000	$ -	$ 612,743	$ 1,015,257
2.5.1.4 Platform Modifications to Accommodate Articualted Buses	2018 - 2020	$ 22,000,000	$ 1,875,000	$ 20,125,000	40%	$ 8,036,000	$ -	$ 12,089,000	$ -	$ 4,552,280	$ 7,536,720
2.5.1.5 Automatic Passenger Counting (APC) Equipment on Future Bus and Streetcar Orders	2018 - 2020	$ 3,050,000	$ -	$ 3,050,000	40%	$ 1,218,000	$ -	$ 1,832,000	$ -	$ 689,789	$ 1,142,211
2.5.1.6 Opportunties to Improve Transit Service - Transit Priority Measures	2018 - 2022	$ 32,000,000	$ 3,150,000	$ 28,850,000	40%	$ 11,521,000	$ -	$ 17,329,000	$ -	$ 6,524,807	$ 10,804,193
Subtotal Service Planning		$ 92,544,000	$ 5,025,000	$ 87,519,000		$ 34,150,000	$ -	$ 53,369,000	$ -	$ 21,342,527	$ 32,026,473
TOTAL TRANSIT (BALANCE)		**$ 21,484,166,674**	**$ 9,988,262,054**	**$ 11,495,904,620**		**$ 5,991,239,000**	**$ -**	**$ 5,504,665,620**	**$ 98,503,547**	**$ 2,512,969,269**	**$ 2,893,192,804**

1 Capital program does not include cash flow or financing assumptions.
2 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$1,784,056,791
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$7,057.47**
Large Apartment Person Per Unit Assumption		2.30
Unadjusted Charge per Apartment Unit		**$16,232.17**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$728,912,478
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$5,199.09**

Allocation of Ridership Growth		
Planning Period	**Ridership**	**Share**
BTE: 2011 + 2011-2018	87,053	40%
Ridership Growth 2018-2027	49,307	23%
Ridership Capacity at 2028	81,640	37%
Total	**218,000**	100%

APPENDIX B.2
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TRANSIT (BALANCE)
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

TRANSIT (BALANCE)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	($478,921.4)	($439,679.4)	($398,323.0)	($373,977.3)	($312,751.4)	($250,408.5)	($172,429.3)	($79,293.3)	$3,814.3	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Transit (Balance): Non Inflated (1)	$627,387.93	$114,048.37	$123,999.55	$133,643.22	$112,219.62	$115,824.01	$106,701.10	$99,111.93	$104,439.17	$91,046.25	**$1,628,421.2**
- Transit Sheppard Sinking Fund Payments (2)	$40,516.68	$11,526.32	$11,526.32	$11,526.32	$1,064.37	$1,064.37	$1,064.37	$1,064.37	$1,064.37	$0.00	**$80,417.5**
- Transit Scarborough Subway Sinking Fund Payments (2)	$6,936.65	$6,936.65	$6,936.65	$6,936.65	$6,936.65	$6,936.65	$6,936.65	$6,936.65	$6,936.65	$115,692.67	**$178,122.5**
- Transit (Balance): Inflated	$674,841.26	$134,792.32	$147,472.10	$160,286.23	$129,471.15	$135,880.09	$128,163.79	$121,849.48	$130,368.15	$224,501.37	**$1,987,625.9**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$208,737.7	$199,247.1	$211,883.6	$205,744.2	$209,859.1	$214,056.3	$218,337.4	$222,704.1	$216,332.6	$220,659.2	**$2,127,561.1**
INTEREST											
- Interest on Opening Balance	$0.0	($26,340.7)	($24,182.4)	($21,907.8)	($20,568.8)	($17,201.3)	($13,772.5)	($9,483.6)	($4,361.1)	$133.5	**($137,684.6)**
- Interest on In-year Transactions	($12,817.8)	$1,128.0	$1,127.2	$795.5	$1,406.8	$1,368.1	$1,578.0	$1,765.0	$1,504.4	($105.7)	**($2,250.6)**
TOTAL REVENUE	$195,919.8	$174,034.4	$188,828.4	$184,631.9	$190,697.1	$198,223.0	$206,142.9	$214,985.5	$213,475.8	$220,687.0	**$1,987,625.9**
CLOSING CASH BALANCE	($478,921.4)	($439,679.4)	($398,323.0)	($373,977.3)	($312,751.4)	($250,408.5)	($172,429.3)	($79,293.3)	$3,814.3	$0.0	

1 Net of Sheppard Subway and Scarborough Subway Extension
2 Sheppard and Scarborough Sinking Fund Payments are not inflated

2018 Adjusted Charge Per Capita	**$7,699.66**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX B.2
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
TRANSIT (BALANCE)
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

TRANSIT (BALANCE)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.00	($201,347.11)	($185,676.32)	($172,759.26)	($162,770.13)	($137,698.65)	($112,155.60)	($80,207.78)	($42,049.91)	($3,470.25)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Transit (Balance): Non Inflated(1)	$256,332.03	$46,596.77	$50,662.52	$54,602.64	$45,849.59	$47,322.24	$43,594.89	$40,494.18	$42,670.73	$37,198.79	**$665,324.4**
- Transit Sheppard Sinking Fund Payments (2)	$16,553.91	$4,709.31	$4,709.31	$4,709.31	$434.87	$434.87	$434.87	$434.87	$434.87	$0.00	**$32,856.2**
- Transit Scarborough Subway Sinking Fund Payments (2)	$2,834.11	$2,834.11	$2,834.11	$2,834.11	$2,834.11	$2,834.11	$2,834.11	$2,834.11	$2,834.11	$47,268.58	**$72,775.6**
- Transit (Balance): Inflated	$275,720.04	$55,072.13	$60,252.71	$65,488.18	$52,898.06	$55,516.56	$52,363.91	$49,784.07	$53,264.55	$91,724.58	**$812,084.8**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$79,761.8	$81,357.0	$82,984.2	$84,643.8	$86,336.7	$88,063.5	$89,824.7	$91,621.2	$93,453.6	$95,322.7	**$873,369.3**
INTEREST											
- Interest on Opening Balance	$0.0	($11,074.1)	($10,212.2)	($9,501.8)	($8,952.4)	($7,573.4)	($6,168.6)	($4,411.4)	($2,312.7)	($190.9)	**($60,397.4)**
- Interest on In-year Transactions	($5,388.9)	$460.0	$397.8	$335.2	$585.2	$569.6	$655.6	$732.2	$703.3	$63.0	**($887.1)**
TOTAL REVENUE	$74,372.9	$70,742.9	$73,169.8	$75,477.3	$77,969.5	$81,059.6	$84,311.7	$87,941.9	$91,844.2	$95,194.8	**$812,084.8**
CLOSING CASH BALANCE	($201,347.1)	($185,676.3)	($172,759.3)	($162,770.1)	($137,698.6)	($112,155.6)	($80,207.8)	($42,049.9)	($3,470.2)	$0.0	

1 Net of Sheppard Subway and Scarborough Subway Extension
2 Sheppard and Scarborough Sinking Fund Payments are not inflated

2018 Adjusted Charge Per Employee	**$5,689.14**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix C

Engineered Services

HEMSON

Appendix C.1

Roads and Related

HEMSON

Appendix C.1

Roads and Related Services
Technical Appendix

The Transportation Services Division is responsible for the emplacement and operation of Roads and Related infrastructure in the City. For roads-related infrastructure located in the waterfront area of the City (East Bayfront, West Don Lands, Lower Don Lands, Central Waterfront and Port Lands), Waterfront Toronto is the lead agency undertaking roads related works. Consistent with the City's current DC by-law, waterfront and non-waterfront roads projects are to be funded through the same reserve fund.

Capital infrastructure contained in the Roads and Related service category includes roads, bridges and other grade separations, traffic and pedestrian signals and transportation studies. Other capital assets within the road right-of-way such as street trees, plantings, benches, signs, etc. are also considered to be roads-related infrastructure. Additionally, the DCA permits a municipality to use DCs for the acquisition of land for DC-eligible services such as roads.

This appendix provides a brief outline of historical service levels for Roads and Related services, the projects that will benefit development occurring over 2018–2027 and 2018-2041 development-related capital forecast, the calculation of the "unadjusted" DC, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by Transportation Services and Waterfront Toronto staff and are based on the current and proposed capital budgets, previous DC background studies, and other long-range planning documents.

The following discusses the individual components included in the Roads and Related service category. The analysis is set out in the tables which follow. The tables include:

Table 1 Historical Service Levels and Calculation of Ten-Year Average Service Level

Table 2 2018–2027 and 2018-2041 Development-Related Capital forecast and Calculation of the Discounted Growth-Related Net Capital Costs

Table 3 Cash Flow Analysis

A. Historical Service Levels and Calculation Of Ten-Year Average Service Levels And Maximum Allowable Charges

The City has an extensive road network that has grown modestly over the last ten years. As shown in Table 1, the DC inventory for roads is based on a system lane kilometre approach. The City's current network of expressways, arterial and collector roads totals approximately 7,000 lane kilometres of roadway with total replacement value of $8,259.90 million. A further 632,600 square metres of bridges and culverts add another $5,060.94 million to the inventory. Finally, other assets add a further $2,664.17 million to the inventory of assets.

The average service level experienced over the last ten years is $3,809.10 per capita and employee. This, multiplied by the 23-year growth of net population and employment of 736,403, produces a maximum available funding envelope of $2,805.03 million.

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$3,809.10
Net Population and Employment Growth (2018 – 2041)	736,403
Maximum Allowable Funding Envelope	$2,805,032,793
Discounted Maximum Allowable Funding Envelope	**$2,805,032,793**

The existing facilities have been examined and consideration has been given to whether or not "excess capacity" exists within the City's infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no "uncommitted excess capacity" exists within the roads and related network, and as such, no adjustments have been made to the service level calculations.

B. Development-Related Capital Forecast

The development-related capital forecast that will benefit development occurring over the 2018-2027 period includes a wide variety of projects for the provision of roads-related services in the City and amounts to a total gross cost of $2,172.76 million, as shown in Table 2. The projects that will benefit development occurring over the 2018-2041 planning period amount to a total gross cost of $1,077.27 million. In total, the capital forecast for the 2018-2027 and 2018-2041 planning period equals $3,250.03 million.

Capital projects within the 2018-2027 planning period include traffic control and signalization projects ($172.86 million), road infrastructure ($1,578.89 million), rail grade separations and related ($361.26 million), studies ($43.24 million), and works buildings and yards improvements ($16.5 million).

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

Provincial and federal funding exists for certain projects and these amounts totalling $521.5 million over both the 2018-2027 and 2018-2041 planning horizons, have been netted off the gross project cost.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development. Decisions were based on a variety of factors including the population and employment growth over the ten-year base, rehabilitation costs and input from City staff.

New projects are deemed to be entirely growth-related and no replacement shares have been deducted from the net cost. For projects that were identified in the 2013 DC Background Study, the prior benefit-to-exiting shares have largely been maintained.

In total, $631.62 million is identified as the replacement and benefit to existing share over both planning periods.

3. Legislated ten per cent Reduction

As this service is identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs is not required.

4. Prior DC Funding

Prior DC funding relates to portions of projects which have had DCs collected and applied against a portion of the DC eligible project costs. These amounts are removed from the capital forecast and not brought forward into the development charge calculation.

In total, $7.51 million in prior growth shares relate to DCs collected prior to 2018 that have been applied against various road related projects.

5. Available DC Reserve Funds

As of December 31, 2016, the City had a reserve fund balance for Roads and Related services of $74.70 million. This amount has been accounted for in the development charge calculation through the cash flow analysis and is applied to opening balance.

6. Post-Period Benefit

Approximately $109.12 million in post-period DC shares has been identified. The development-related component of these projects has been split based on City-wide population and employment growth in the 2018–2027 period versus growth in the 2018–2041 period.

7. 2018-2027 and 2018-2041 DC Eligible Development Related Costs

After the statutory deductions, the development charge eligible costs that are recovered in-period 2018-2027 is reduced to $1,138.20 million and in-period 2018-2041 is reduced to $842.07 million, for a total of $1,980.28 million in DC eligible costs.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

The discounted development-related costs for the 2018-2027 planning period have been allocated 71 per cent to residential development and 29 per cent to non-residential development. For the 2018-2041 planning period, discounted development-related costs have been allocated 72 per cent to residential and 28 per cent to non-residential development. These percentages are based on shares of ten-year (2018-2027) and 23-year (2018-2041) net population and employment growth.

The $808.06 million in 2018-2027 residential development-related net capital costs is divided by the population forecast from new housing units of 252,390, yielding a per capita charge of $3,201.61 before cash flow adjustments. The non-residential unadjusted charge per employee is calculated by taking the $330.15 million allocated to the non-residential sector and dividing it by 140,200 employees in new non-residential floor space. This yields an unadjusted charge of $2,354.83 per employee.

The $602.86 million identified for 2018-2041 in residential development-related net capital costs is divided by the population forecast from new permits issued units of 540,750, yielding a per capita charge of $1,114.85 before cash flow adjustments. The non-residential unadjusted charge per employee is calculated by taking the $239.22 million allocated to the non-residential sector and dividing it by 293,000 employees. This yields an unadjusted charge of $816.45 per employee.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of DCs. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the DC rate required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds.

The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate DC rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employees in new non-residential DCs. The 2018-2027 and 2018-2041 planning periods are cash flowed separately but combined to total the adjusted charge per capita and per employee. After cash flow consideration, the residential calculated charge decreases slightly to $4,055.47 per capita. The non-residential charge after cash flow decreases slightly to $3,066.07 employee.

The following table summarizes the calculation of the Roads and Related DC.

ROADS AND RELATED SERVICES					
2018-2027 & 2018-2041		Unadjusted		**Adjusted**	
Development-Related Capital Program		Development Charge		**Development Charge**	
Total	Net DC Recoverable	$/capita	$/employee	**$/capita**	**$/employee**
$3,250,025,718	$1,980,277,377	$4,316.46	$3,171.28	**$4,055.47**	**$3,066.07**

APPENDIX C.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
ROADS AND RELATED

SYSTEM LANE KILOMETERS	Lane Kilometers										UNIT COST
Road Category	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/Lane Km)
City Expressway	310.6	316.0	353.0	390.0	390.0	318.0	314.0	321.0	321.0	321.0	**$4,000,000**
Major Arterial	3,111.4	3,125.2	3,224.8	3,324.4	3,324.4	3,237.0	3,211.0	3,344.0	3,344.0	3,344.0	**$1,100,000**
Minor Arterial	1,164.9	1,148.4	1,139.4	1,130.3	1,130.3	1,415.0	1,410.0	1,408.0	1,408.0	1,408.0	**$1,100,000**
Collector	1,940.5	1,981.4	2,132.5	2,283.6	2,283.6	1,906.0	1,910.0	1,943.0	1,943.0	1,943.0	**$900,000**
Total (lane km)	**6,527.4**	**6,571.0**	**6,849.7**	**7,128.3**	**7,128.3**	**6,876.0**	**6,845.0**	**7,016.0**	**7,016.0**	**7,016.0**	
Total ($000)	**$7,692,650.0**	**$7,748,220.0**	**$8,131,815.0**	**$8,515,410.0**	**$8,515,410.0**	**$8,104,600.0**	**$8,058,100.0**	**$8,259,900.0**	**$8,259,900.0**	**$8,259,900.0**	

BRIDGES/CULVERTS	Area (Sq. m)										UNIT COST
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/Sq. m)
Square Metres of Bridge, Culvert or Viaduct deck with a span of greater than 3 metres (all Roads)	588,561	592,493	617,619	642,744	642,744	579,516	636,523	632,618	632,618	632,618	$8,000
Total ($000)	**$4,708,487.9**	**$4,739,946.3**	**$4,940,948.6**	**$5,141,950.8**	**$5,141,950.8**	**$4,636,125.8**	**$5,092,186.4**	**$5,060,944.0**	**$5,060,944.0**	**$5,060,944.0**	

OTHER ASSETS	Value of Assets ($000)									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
20% of Roads and Bridges/Culverts to account for other assets	$2,480,227.6	$2,497,633.3	$2,614,552.7	$2,731,472.2	$2,731,472.2	$2,548,145.2	$2,630,057.3	$2,664,168.8	$2,664,168.8	$2,664,168.8
Total ($000)	**$2,480,227.6**	**$2,497,633.3**	**$2,614,552.7**	**$2,731,472.2**	**$2,731,472.2**	**$2,548,145.2**	**$2,630,057.3**	**$2,664,168.8**	**$2,664,168.8**	**$2,664,168.8**

APPENDIX C.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
ROADS AND RELATED

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048
Historical Employment	1,406,700	1,418,100	1,429,600	1,441,100	1,470,100	1,499,700	1,529,900	1,560,700	1,592,100	1,608,200
Total	3,932,100	3,961,300	3,990,000	4,056,200	4,105,276	4,152,704	4,196,985	4,256,770	4,323,700	4,361,248

INVENTORY SUMMARY ($000)

System Lane Kilometres	$7,692,650.0	$7,748,220.0	$8,131,815.0	$8,515,410.0	$8,515,410.0	$8,104,600.0	$8,058,100.0	$8,259,900.0	$8,259,900.0	$8,259,900.0
Bridges & Culverts	$4,708,487.9	$4,739,946.3	$4,940,948.6	$5,141,950.8	$5,141,950.8	$4,636,125.8	$5,092,186.4	$5,060,944.0	$5,060,944.0	$5,060,944.0
Other Assets	$2,480,227.6	$2,497,633.3	$2,614,552.7	$2,731,472.2	$2,731,472.2	$2,548,145.2	$2,630,057.3	$2,664,168.8	$2,664,168.8	$2,664,168.8
Total ($000)	**$14,881,365.5**	**$14,985,799.5**	**$15,687,316.3**	**$16,388,833.0**	**$16,388,833.0**	**$15,288,870.9**	**$15,780,343.7**	**$15,985,012.8**	**$15,985,012.8**	**$15,985,012.8**

SERVICE LEVEL ($/capita)

											Average Service Level
System Lane Kilometres	$1,956.37	$1,955.98	$2,038.05	$2,099.36	$2,074.26	$1,951.64	$1,919.97	$1,940.41	$1,910.38	$1,893.93	$1,974.04
Bridges & Culverts	$1,197.45	$1,196.56	$1,238.33	$1,267.68	$1,252.52	$1,116.41	$1,213.30	$1,188.92	$1,170.51	$1,160.43	$1,200.21
Other Assets	$630.76	$630.51	$655.28	$673.41	$665.36	$613.61	$626.65	$625.87	$616.18	$610.87	$634.85
Total ($/capita)	**$3,784.58**	**$3,783.05**	**$3,931.66**	**$4,040.44**	**$3,992.14**	**$3,681.67**	**$3,759.92**	**$3,755.20**	**$3,697.07**	**$3,665.24**	**$3,809.10**

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
ROADS AND RELATED

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2007 - 2016	$3,809.10
Net Population & Employmeny Growth 2017 - 2041	736,403
Maximum Allowable Funding Envelope	$2,805,032,793
Discounted Maximum Allowable Funding Envelope	**$2,805,032,793**

APPENDIX C.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL PROGRAM
ROADS AND RELATED

Project Description	Timing	DC Study Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
					% BTE	Replacement & BTE Shares	0% Reduction		Prior DC Funding	In-Period	Post Period
1 10-YEAR ROADS PROJECTS											
1.1 Traffic Control & Signalization											
1.1.1 New Traffic Control Signals / Devices - 2017	2018 - 2018	$ 4,080,000	$ -	$ 4,080,000	40%	$ 1,632,000	$ -	$ 2,448,000	$ -	$ 2,448,000	$ -
1.1.2 New Traffic Control Signals / Devices	2018 - 2027	$ 21,800,000	$ -	$ 21,800,000	40%	$ 8,720,000	$ -	$ 13,080,000	$ -	$ 13,080,000	$ -
1.1.3 Traffic Signal Major Modifications - 2017	2018 - 2018	$ 2,490,000	$ -	$ 2,490,000	50%	$ 1,245,000	$ -	$ 1,245,000	$ -	$ 1,245,000	$ -
1.1.4 Traffic Signal Major Modifications	2018 - 2027	$ 17,900,000	$ -	$ 17,900,000	50%	$ 8,950,000	$ -	$ 8,950,000	$ -	$ 8,950,000	$ -
1.1.5 Traffic Control - RESCU - 2017	2018 - 2018	$ 350,000	$ -	$ 350,000	92%	$ 323,103	$ -	$ 26,897	$ -	$ 26,897	$ -
1.1.6 Traffic Control - RESCU	2018 - 2019	$ 1,300,000	$ -	$ 1,300,000	92%	$ 1,200,098	$ -	$ 99,902	$ -	$ 99,902	$ -
1.1.7 Traffic Congestion Management - 2017	2018 - 2018	$ 11,618,000	$ -	$ 11,618,000	92%	$ 10,725,182	$ -	$ 892,818	$ -	$ 892,818	$ -
1.1.8 Traffic Congestion Management	2018 - 2020	$ 25,440,000	$ -	$ 25,440,000	92%	$ 23,484,992	$ -	$ 1,955,008	$ -	$ 1,955,008	$ -
1.1.9 Pedestrian Safety & Infrastructure - 2017	2018 - 2018	$ 2,630,500	$ -	$ 2,630,500	92%	$ 2,428,352	$ -	$ 202,148	$ -	$ 202,148	$ -
1.1.10 Pedestrian Safety & Infrastructure	2018 - 2027	$ 7,851,000	$ -	$ 7,851,000	92%	$ 7,247,668	$ -	$ 603,332	$ -	$ 603,332	$ -
1.1.11 Accessible Pedestrian Signals (Audible Signals) - 2017	2018 - 2018	$ 3,571,000	$ -	$ 3,571,000	92%	$ 3,296,577	$ -	$ 274,423	$ -	$ 274,423	$ -
1.1.12 Accessible Pedestrian Signals (Audible Signals)	2018 - 2027	$ 16,020,000	$ -	$ 16,020,000	92%	$ 14,788,898	$ -	$ 1,231,102	$ -	$ 1,231,102	$ -
1.1.13 Advanced Traffic Signal Control - 2017	2018 - 2018	$ 2,437,000	$ -	$ 2,437,000	50%	$ 1,218,500	$ -	$ 1,218,500	$ -	$ 1,218,500	$ -
1.1.14 Advanced Traffic Signal Control	2018 - 2025	$ 10,420,000	$ -	$ 10,420,000	50%	$ 5,210,000	$ -	$ 5,210,000	$ -	$ 5,210,000	$ -
1.1.15 Transportation Safety & Local Improvements - 2017	2018 - 2018	$ 2,445,000	$ -	$ 2,445,000	92%	$ 2,257,107	$ -	$ 187,893	$ -	$ 187,893	$ -
1.1.16 Transportation Safety & Local Improvements	2018 - 2027	$ 14,066,000	$ -	$ 14,066,000	92%	$ 12,985,059	$ -	$ 1,080,941	$ -	$ 1,080,941	$ -
1.1.17 Road Safety Plan - 2017	2018 - 2018	$ 2,445,000	$ -	$ 2,445,000	92%	$ 2,257,107	$ -	$ 187,893	$ -	$ 187,893	$ -
1.1.18 Road Safety Plan	2018 - 2021	$ 25,998,000	$ -	$ 25,998,000	92%	$ 24,000,111	$ -	$ 1,997,889	$ -	$ 1,997,889	$ -
Subtotal Traffic Control & Signalization		$ 172,861,500	$ -	$ 172,861,500		$ 131,969,754	$ -	$ 40,891,746	$ -	$ 40,891,746	$ -

APPENDIX C.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
ROADS AND RELATED

Project Description		Timing	DC Study Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
						% BTE	Replacement & BTE Shares	0% Reduction		Prior DC Funding	In-Period	Post Period
1.2 Road Infrastructure												
1.2.1	Six Points Interchange Redevelopment - 2017	2018 - 2018	$ 28,751,000	$ -	$ 28,751,000	72%	$ 20,700,720	$ -	$ 8,050,280	$ -	$ 8,050,280	$ -
1.2.2	Six Points Interchange Redevelopment	2018 - 2020	$ 36,176,000	$ -	$ 36,176,000	72%	$ 26,046,720	$ -	$ 10,129,280	$ -	$ 10,129,280	$ -
1.2.3	Scarlett / St. Clair / Dundas - 2017	2018 - 2018	$ 300,000	$ -	$ 300,000	63%	$ 189,000	$ -	$ 111,000	$ -	$ 111,000	$ -
1.2.4	Scarlett / St. Clair / Dundas	2018 - 2021	$ 35,075,000	$ -	$ 35,075,000	63%	$ 22,097,250	$ -	$ 12,977,750	$ -	$ 12,977,750	$ -
1.2.5	Regent Park Revitalization - 2017	2018 - 2018	$ 1,565,000	$ -	$ 1,565,000	28%	$ 438,200	$ -	$ 1,126,800	$ -	$ 1,126,800	$ -
1.2.6	Regent Park Revitalization	2018 - 2021	$ 765,000	$ -	$ 765,000	28%	$ 214,200	$ -	$ 550,800	$ -	$ 550,800	$ -
1.2.7	Gardiner York/Bay/Yonge Ramp Reconfiguration - 2017	2018 - 2018	$ 28,812,000	$ -	$ 28,812,000	75%	$ 21,609,000	$ -	$ 7,203,000	$ -	$ 7,203,000	$ -
1.2.8	Gardiner York/Bay/Yonge Ramp Reconfiguration - 2018	2018 - 2018	$ 38,000	$ -	$ 38,000	75%	$ 28,500	$ -	$ 9,500	$ -	$ 9,500	$ -
1.2.9	Lawr-Allen Revitalization - 2013-2016	2018 - 2018	$ 524,788	$ -	$ 524,788	16%	$ 84,526	$ -	$ 440,262	$ 110,065	$ 330,196	$ -
1.2.10	Lawr-Allen Revitalization - 2017	2018 - 2018	$ 1,153,000	$ -	$ 1,153,000	16%	$ 185,710	$ -	$ 967,290	$ -	$ 967,290	$ -
1.2.11	Lawrence-Allen Revitalization – Phase 1	2018 - 2023	$ 8,414,000	$ -	$ 8,414,000	16%	$ 1,355,215	$ -	$ 7,058,785	$ -	$ 7,058,785	$ -
1.2.12	Lawrence-Allen Revitalization – Pedestrian Bridges	2023 - 2025	$ 50,000,000	$ -	$ 50,000,000	0%	$ -	$ -	$ 50,000,000	$ -	$ 25,000,000	$ 25,000,000
1.2.13	Varna Drive Extension (Lawrence-Allen)	2025 - 2027	$ 30,000,000	$ -	$ 30,000,000	0%	$ -	$ -	$ 30,000,000	$ -	$ 30,000,000	$ -
1.2.14	Legion Road - 2017	2018 - 2018	$ 490,000	$ -	$ 490,000	0%	$ -	$ -	$ 490,000	$ -	$ 490,000	$ -
1.2.15	Legion Road	2019 - 2023	$ 26,399,000	$ -	$ 26,399,000	0%	$ -	$ -	$ 26,399,000	$ -	$ 26,399,000	$ -
1.2.16	Steeles Widenings (Tapscott Road - Beare Road) - 2017	2018 - 2018	$ 1,998,000	$ 999,000	$ 999,000	15%	$ 149,333	$ -	$ 849,667	$ -	$ 849,667	$ -
1.2.17	Steeles Widenings (Tapscott Road - Beare Road)	2018 - 2022	$ 29,000,000	$ 14,500,000	$ 14,500,000	15%	$ 2,167,500	$ -	$ 12,332,500	$ -	$ 12,332,500	$ -
1.2.18	Steeles Ave Widening: Hilda Avenue to Bathurst Street	2023 - 2024	$ 30,000,000	$ 15,000,000	$ 15,000,000	7%	$ 1,047,420	$ -	$ 13,952,580	$ -	$ 13,952,580	$ -
1.2.19	Morningside Ave Extension - McNicoll Ave to Steeles Ave	2020 - 2023	$ 33,000,000	$ -	$ 33,000,000	0%	$ -	$ -	$ 33,000,000	$ -	$ 33,000,000	$ -
1.2.20	North York Service Road- Extension of Doris Ave South of Sheppard - 20	2018 - 2018	$ 1,650,000	$ -	$ 1,650,000	0%	$ -	$ -	$ 1,650,000	$ -	$ 1,650,000	$ -
1.2.21	North York Service Road- Extension of Doris Ave South of Sheppard	2019 - 2022	$ 34,750,000	$ -	$ 34,750,000	0%	$ -	$ -	$ 34,750,000	$ -	$ 34,750,000	$ -
1.2.22	North York Centre- Beecroft Ave. Extension from Finch to Steeles	2019 - 2027	$ 25,000,000	$ -	$ 25,000,000	0%	$ -	$ -	$ 25,000,000	$ -	$ 25,000,000	$ -
1.2.23	Port Union Road Widening: Lawrence Ave - Kingston Rd - 2017	2018 - 2018	$ 900,000	$ -	$ 900,000	9%	$ 80,182	$ -	$ 819,818	$ -	$ 819,818	$ -
1.2.24	Port Union Road Widening: Lawrence Ave - Kingston Rd	2018 - 2021	$ 9,350,000	$ -	$ 9,350,000	9%	$ 833,000	$ -	$ 8,517,000	$ -	$ 8,517,000	$ -
1.2.25	St. Clair TMP - 2017	2018 - 2018	$ 4,000,000	$ -	$ 4,000,000	0%	$ -	$ -	$ 4,000,000	$ -	$ 4,000,000	$ -
1.2.26	St. Clair TMP: Widening: Keele to Old Weston Road	2019 - 2023	$ 57,250,000	$ 9,900,000	$ 47,350,000	1%	$ 339,680	$ -	$ 47,010,320	$ -	$ 47,010,320	$ -
1.2.27	St Clair TMP - Gunns Extension	2019 - 2023	$ 28,275,000	$ -	$ 28,275,000	0%	$ -	$ -	$ 28,275,000	$ -	$ 28,275,000	$ -
1.2.28	St Clair TMP - Keele Extension	2019 - 2023	$ 11,300,000	$ -	$ 11,300,000	0%	$ -	$ -	$ 11,300,000	$ -	$ 11,300,000	$ -
1.2.29	St Clair TMP - Davenport Extension	2019 - 2023	$ 37,500,000	$ -	$ 37,500,000	0%	$ -	$ -	$ 37,500,000	$ -	$ 37,500,000	$ -
1.2.30	North Queen Street Extension	2024 - 2027	$ 25,956,000	$ -	$ 25,956,000	0%	$ -	$ -	$ 25,956,000	$ -	$ 25,956,000	$ -
1.2.31	Ingram Drive Extension - 2017	2018 - 2018	$ 250,000	$ -	$ 250,000	0%	$ -	$ -	$ 250,000	$ -	$ 250,000	$ -
1.2.32	Ingram Drive Extension	2022 - 2027	$ 55,050,000	$ -	$ 55,050,000	0%	$ -	$ -	$ 55,050,000	$ -	$ 55,050,000	$ -
1.2.33	Lake Shore Blvd West Widening	2024 - 2027	$ 9,000,000	$ -	$ 9,000,000	18%	$ 1,637,600	$ -	$ 7,362,400	$ -	$ 7,362,400	$ -
1.2.34	New East-West Road: Rean to Kenaston Gardens	2018 - 2019	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ -	$ 1,000,000	$ -	$ 1,000,000	$ -
1.2.35	REimagining Yonge Sheppard to Finch - 2017	2018 - 2018	$ 125,000	$ 125,000	$ -	48%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.36	REimagining Yonge Sheppard to Finch	2019 - 2021	$ 51,879,000	$ -	$ 51,879,000	48%	$ 24,901,920	$ -	$ 26,977,080	$ -	$ 26,977,080	$ -

APPENDIX C.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
ROADS AND RELATED

Project Description		Timing	DC Study Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
						% BTE	Replacement & BTE Shares	0% Reduction		Prior DC Funding	In-Period	Post Period
1.2	**Road Infrastructure continued**											
1.2.37	Lower Yonge Precinct	2021 - 2024	$ 100,000,000	$ -	$ 100,000,000	25%	$ 25,000,000	$ -	$ 75,000,000	$ -	$ 75,000,000	$ -
1.2.38	John Street Revitalization	2018 - 2027	$ 43,800,000	$ 2,000,000	$ 41,800,000	92%	$ 38,587,762	$ -	$ 3,212,238	$ -	$ 3,212,238	$ -
1.2.39	Liberty New Street	2018 - 2022	$ 92,120,000	$ -	$ 92,120,000	0%	$ -	$ -	$ 92,120,000	$ -	$ 92,120,000	$ -
1.2.40	Passmore Avenue Widening	2018 - 2020	$ 2,310,000	$ -	$ 2,310,000	17%	$ 384,750	$ -	$ 1,925,250	$ -	$ 1,925,250	$ -
1.2.41	Emery Village Improvements	2018 - 2021	$ 4,830,000	$ -	$ 4,830,000	0%	$ -	$ -	$ 4,830,000	$ -	$ 4,830,000	$ -
1.2.42	New Cycling Infrastructure - 2017	2018 - 2018	$ 7,900,000	$ -	$ 7,900,000	75%	$ 5,925,000	$ -	$ 1,975,000	$ -	$ 1,975,000	$ -
1.2.43	New Cycling Infrastructure	2018 - 2027	$ 160,000,000	$ -	$ 160,000,000	75%	$ 120,000,000	$ -	$ 40,000,000	$ -	$ 40,000,000	$ -
1.2.44	Gardiner Ramp Improvement (Park Lawn to 427)- Land only	2019 - 2020	$ 15,000,000	$ -	$ 15,000,000	0%	$ -	$ -	$ 15,000,000	$ -	$ 15,000,000	$ -
1.2.45	Downsview Road Project (Previously Transit Road Extension)	2027 - 2027	$ 130,000,000	$ 71,500,000	$ 58,500,000	0%	$ -	$ -	$ 58,500,000	$ -	$ 58,500,000	$ -
1.2.46	Yonge Street/Highway 401 Interchange Improvements	2022 - 2024	$ 22,500,000	$ 11,250,000	$ 11,250,000	0%	$ -	$ -	$ 11,250,000	$ -	$ 11,250,000	$ -
1.2.47	Eglinton Connects	2022 - 2027	$ 90,000,000	$ -	$ 90,000,000	92%	$ 83,083,699	$ -	$ 6,916,301	$ -	$ 6,916,301	$ -
1.2.48	Metrolinx Additonal Infrastructure Program (Finch & Eglinton)	2020 - 2023	$ 17,750,000	$ -	$ 17,750,000	20%	$ 3,550,000	$ -	$ 14,200,000	$ -	$ 14,200,000	$ -
1.2.49	King-Liberty Bridge	2018 - 2019	$ 11,830,000	$ -	$ 11,830,000	0%	$ -	$ -	$ 11,830,000	$ -	$ 11,830,000	$ -
1.2.50	Mill Street	2018 - 2018	$ 6,436,690	$ 698,374	$ 5,738,316	23%	$ 1,291,121	$ -	$ 4,447,195	$ 4,000,000	$ 447,195	$ -
1.2.51	Cherry Street	2018 - 2018	$ 11,100,000	$ 10,374,158	$ 725,842	23%	$ 163,314	$ -	$ 562,528	$ -	$ 562,528	$ -
1.2.52	Preliminary Infrastructure Engineering (EBF)	2018 - 2018	$ 2,820,165	$ 401,553	$ 2,418,612	23%	$ 544,188	$ -	$ 1,874,424	$ 1,333,333	$ 541,091	$ -
1.2.53	Lower Sherborne Street	2018 - 2018	$ 5,000,000	$ 2,423,400	$ 2,576,600	23%	$ 579,735	$ -	$ 1,996,865	$ 1,815,153	$ 181,712	$ -
1.2.54	Bonnycastle Street	2018 - 2022	$ 8,730,992	$ 4,230,960	$ 4,500,032	23%	$ 1,012,507	$ -	$ 3,487,525	$ 248,184	$ 3,239,341	$ -
1.2.55	Leslie Street Streetscaping	2018 - 2018	$ 2,761,018	$ 2,112,166	$ 648,852	23%	$ 145,992	$ -	$ 502,860	$ -	$ 502,860	$ -
1.2.56	Lakeshore Road Re-alignment	2018 - 2022	$ 21,470,000	$ -	$ 21,470,000	23%	$ 4,938,100	$ -	$ 16,531,900	$ -	$ 16,531,900	$ -
1.2.57	Peel Avenue from Gladstone Ave to Dufferin St	2018 - 2018	$ 1,280,000	$ -	$ 1,280,000	23%	$ 320,000	$ -	$ 960,000	$ -	$ 960,000	$ -
1.2.58	Gladstone Ave from Queen St to Peel Ave	2018 - 2018	$ 1,560,000	$ -	$ 1,560,000	29%	$ 390,000	$ -	$ 1,170,000	$ -	$ 1,170,000	$ -
1.2.59	Silver Star Boulevard from Passmore Ave to Midland Ave.	2019 - 2027	$ 25,000,000	$ -	$ 25,000,000	0%	$ -	$ -	$ 25,000,000	$ -	$ 25,000,000	$ -
1.2.60	UNALLOCATED PROJECTS	2018 - 2027	$ 99,000,000	$ -	$ 99,000,000	40%	$ 39,600,000	$ -	$ 59,400,000	$ -	$ 59,400,000	$ -
	Subtotal Road Infrastructure		$ 1,578,894,653	$ 145,514,611	$ 1,433,380,042		$ 449,621,844	$ -	$ 983,758,197	$ 7,506,736	$ 951,251,461	$ 25,000,000

APPENDIX C.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
ROADS AND RELATED

Project Description	Timing	DC Study Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
					% BTE	Replacement & BTE Shares	0% Reduction		Prior DC Funding	In-Period	Post Period
1.3 Rail Grade Separations and Related											
1.3.1 Steeles Avenue East / Kennedy Road Grade Separation	2021 - 2021	$ 6,000,000	$ 5,550,000	$ 450,000	20%	$ 90,000	$ -	$ 360,000	$ -	$ 360,000	$ -
1.3.2 Finch Avenue East (Stouffville)	2018 - 2027	$ 56,000,000	$ 47,600,000	$ 8,400,000	15%	$ 1,260,000	$ -	$ 7,140,000	$ -	$ 7,140,000	$ -
1.3.3 Scarborough Golf Club Road (LSE)	2018 - 2027	$ 69,000,000	$ 58,650,000	$ 10,350,000	25%	$ 2,587,500	$ -	$ 7,762,500	$ -	$ 7,762,500	$ -
1.3.4 Galloway Road (LSE)	2018 - 2027	$ 71,000,000	$ 60,350,000	$ 10,650,000	5%	$ 532,500	$ -	$ 10,117,500	$ -	$ 10,117,500	$ -
1.3.5 Morningside Drive (LSE)	2018 - 2027	$ 69,000,000	$ 58,650,000	$ 10,350,000	15%	$ 1,552,500	$ -	$ 8,797,500	$ -	$ 8,797,500	$ -
1.3.6 Georgetown South City - Infrastructure Upgrades - 2017	2018 - 2018	$ 13,420,000	$ -	$ 13,420,000	20%	$ 2,684,000	$ -	$ 10,736,000	$ -	$ 10,736,000	$ -
1.3.7 Georgetown South City - Infrastructure Upgrades	2018 - 2019	$ 26,840,000	$ -	$ 26,840,000	20%	$ 5,368,000	$ -	$ 21,472,000	$ -	$ 21,472,000	$ -
1.3.8 Agincourt Grade Separation (new north-south road connecting Sheppard	2018 - 2027	$ 50,000,000	$ -	$ 50,000,000	0%	$ -	$ -	$ 50,000,000	$ -	$ 50,000,000	$ -
Subtotal Rail Grade Separations and Related		$ 361,260,000	$ 230,800,000	$ 130,460,000		$ 14,074,500	$ -	$ 116,385,500	$ -	$ 116,385,500	$ -
1.4 Engineering Studies											
1.4.1 Ten year studies	2018 - 2027	$ 36,798,000	$ -	$ 36,798,000	34%	$ 12,621,237	$ -	$ 24,176,763	$ -	$ 24,176,763	$ -
1.4.2 2017 Studies	2018 - 2018	$ 6,437,000	$ -	$ 6,437,000	34%	$ 2,207,807	$ -	$ 4,229,193	$ -	$ 4,229,193	$ -
Subtotal Engineering Studies		$ 43,235,000	$ -	$ 43,235,000		$ 14,829,044	$ -	$ 28,405,956	$ -	$ 28,405,956	$ -
1.5 Works Buildings and Yards											
1.5.1 Facility improvements - 2017	2018 - 2018	$ 1,500,000	$ -	$ 1,500,000	92%	$ 1,384,728	$ -	$ 115,272	$ -	$ 115,272	$ -
1.5.2 Facility improvements	2018 - 2027	$ 15,000,000	$ -	$ 15,000,000	92%	$ 13,847,283	$ -	$ 1,152,717	$ -	$ 1,152,717	$ -
Subtotal Works Buildings and Yards		$ 16,500,000	$ -	$ 16,500,000		$ 15,232,011	$ -	$ 1,267,989	$ -	$ 1,267,989	$ -
TOTAL 10-YEAR ROADS		**$ 2,172,751,153**	**$ 376,314,611**	**$ 1,796,436,542**		**$ 625,727,153**	**$ -**	**$ 1,170,709,388**	**$ 7,506,736**	**$ 1,138,202,652**	**$ 25,000,000**

APPENDIX C.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
ROADS AND RELATED

Project Description	Timing	DC Study Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
					% BTE	Replacement & BTE Shares	0% Reduction		Prior DC Funding	In-Period	Post Period
1.6 ROADS TO 2041											
1.6.1 Design Cherry St Realignment and Bridges - 2017	2018 - 2018	$ 4,200,000	$ -	$ 4,200,000	0%	$ -	$ -	$ 4,200,000	$ -	$ 4,200,000	$ -
1.6.2 Design Cherry St Realignment and Bridges	2018 - 2018	$ 1,400,000	$ -	$ 1,400,000	0%	$ -	$ -	$ 1,400,000	$ -	$ 1,400,000	$ -
1.6.3 Don Roadway North	2018 - 2022	$ 6,090,935	$ 3,782,531	$ 2,308,405	0%	$ -	$ -	$ 2,308,405	$ -	$ 2,308,405	$ -
1.6.4 Don Roadway Valley Wall Feature	2018 - 2020	$ 24,931,561	$ 15,482,744	$ 9,448,817	0%	$ -	$ -	$ 9,448,817	$ -	$ 9,448,817	$ -
1.6.5 Lake Shore Road Bridge Modifications	2018 - 2020	$ 18,474,724	$ 11,472,985	$ 7,001,739	0%	$ -	$ -	$ 7,001,739	$ -	$ 7,001,739	$ -
1.6.6 Cherry Street Re-alignment	2018 - 2019	$ 15,341,998	$ 13,005,186	$ 2,336,812	0%	$ -	$ -	$ 2,336,812	$ -	$ 2,336,812	$ -
1.6.7 Cherry Street Bridge North (V+T)	2018 - 2018	$ 53,929,981	$ 33,491,048	$ 20,438,933	0%	$ -	$ -	$ 20,438,933	$ -	$ 20,438,933	$ -
1.6.8 Cherry Street Bridge South	2018 - 2019	$ 40,900,623	$ 25,399,689	$ 15,500,935	0%	$ -	$ -	$ 15,500,935	$ -	$ 15,500,935	$ -
1.6.9 Old Cherry Street Bridge Demolition	2018 - 2020	$ 3,669,395	$ 2,278,730	$ 1,390,665	0%	$ -	$ -	$ 1,390,665	$ -	$ 1,390,665	$ -
1.6.10 Commissioners Street West	2018 - 2020	$ 16,894,634	$ 10,491,734	$ 6,402,900	0%	$ -	$ -	$ 6,402,900	$ -	$ 6,402,900	$ -
1.6.11 Commissioners Street Bridge	2018 - 2019	$ 41,930,134	$ 26,039,025	$ 15,891,109	0%	$ -	$ -	$ 15,891,109	$ -	$ 15,891,109	$ -
1.6.12 Commissioners Street East	2018 - 2019	$ 6,029,310	$ 3,744,261	$ 2,285,049	0%	$ -	$ -	$ 2,285,049	$ -	$ 2,285,049	$ -
1.6.13 Reconstruct Broadview and Extend Broadview LRT (Queen to Eastern in	2026 - 2035	$ 13,006,046	$ -	$ 13,006,046	1%	$ 181,250	$ -	$ 12,824,796	$ -	$ 12,824,796	$ -
1.6.14 Broadview Underpass	2018 - 2025	$ 39,550,000	$ -	$ 39,550,000	0%	$ -	$ -	$ 39,550,000	$ -	$ 39,550,000	$ -
1.6.15 Broadview Valley Wall Feature (allowance consistent with Due Dilligence)	2018 - 2025	$ 4,746,000	$ -	$ 4,746,000	0%	$ -	$ -	$ 4,746,000	$ -	$ 4,746,000	$ -
1.6.16 Extend Broadview Avenue with Interim BRT (Eastern to Lake Shore)	2018 - 2025	$ 19,544,333	$ -	$ 19,544,333	0%	$ -	$ -	$ 19,544,333	$ -	$ 19,544,333	$ -
1.6.17 Bouchette Extension	2026 - 2035	$ 7,735,904	$ -	$ 7,735,904	0%	$ -	$ -	$ 7,735,904	$ -	$ 7,735,904	$ -
1.6.18 New East Street	2018 - 2025	$ 14,343,655	$ -	$ 14,343,655	0%	$ -	$ -	$ 14,343,655	$ -	$ 14,343,655	$ -
1.6.19 Upgrade Broadview BRT to LRT (Eastern to Lake Shore)	2026 - 2035	$ 1,428,566	$ -	$ 1,428,566	0%	$ -	$ -	$ 1,428,566	$ -	$ 1,428,566	$ -
1.6.20 Eastern Avenue Upgrades (Broadview to Carlaw) with Allowance for upg	2026 - 2035	$ 18,425,420	$ -	$ 18,425,420	3%	$ 552,500	$ -	$ 17,872,920	$ -	$ 17,872,920	$ -
1.6.21 Eastern Avenue Upgrades (Carlaw to Leslie)	2026 - 2035	$ 12,892,151	$ -	$ 12,892,151	4%	$ 559,000	$ -	$ 12,333,151	$ -	$ 12,333,151	$ -
1.6.22 Eastern Avenue Upgrades (Leslie to Woodfield)	2026 - 2035	$ 9,278,311	$ -	$ 9,278,311	5%	$ 487,500	$ -	$ 8,790,811	$ -	$ 8,790,811	$ -
1.6.23 Caroline Extension (Eastern to Lake Shore)	2026 - 2035	$ 9,762,600	$ -	$ 9,762,600	0%	$ -	$ -	$ 9,762,600	$ -	$ 9,762,600	$ -
1.6.24 Woodfield Extension and Upgrades	2018 - 2025	$ 2,140,997	$ -	$ 2,140,997	0%	$ -	$ -	$ 2,140,997	$ -	$ 2,140,997	$ -
1.6.25 Commissioners Street with Interim BRT (Don Roadway to Saulter)	2026 - 2035	$ 2,298,998	$ -	$ 2,298,998	15%	$ 336,600	$ -	$ 1,962,398	$ -	$ 1,962,398	$ -
1.6.26 Commissioners Street with Interim BRT (Saulter Street. to Broadview)	2026 - 2035	$ 6,086,350	$ -	$ 6,086,350	4%	$ 252,450	$ -	$ 5,833,900	$ -	$ 5,833,900	$ -
1.6.27 Broadview Extension with Interim BRT (Lake Shore to Commissioners)	2026 - 2035	$ 9,874,753	$ -	$ 9,874,753	0%	$ -	$ -	$ 9,874,753	$ -	$ 9,874,753	$ -
1.6.28 Commissioners Street and protect for future LRT (Broadview to Carlaw)	2026 - 2035	$ 14,026,597	$ -	$ 14,026,597	0%	$ -	$ -	$ 14,026,597	$ -	$ 14,026,597	$ -
1.6.29 Carlaw Avenue Upgrades (Lake Shore to Eastern)	2026 - 2035	$ 4,207,557	$ -	$ 4,207,557	6%	$ 243,000	$ -	$ 3,964,557	$ -	$ 3,964,557	$ -
1.6.30 Carlaw Avenue Reconstruction (Lake Shore to Commissioners)	2026 - 2035	$ 6,599,835	$ -	$ 6,599,835	3%	$ 192,375	$ -	$ 6,407,460	$ -	$ 6,407,460	$ -
1.6.31 Carlaw Avenue Extension (Commissioners to Basin Extension)	2036 - 2041	$ 3,261,700	$ -	$ 3,261,700	0%	$ -	$ -	$ 3,261,700	$ -	$ 3,261,700	$ -
1.6.32 Broadview Extension and Protect for Future LRT (Commissioners to Shi	2036 - 2041	$ 9,150,832	$ -	$ 9,150,832	0%	$ -	$ -	$ 9,150,832	$ -	$ 9,150,832	$ -
1.6.33 Basin Transmission Station Relocation	2036 - 2041	$ 169,274,000	$ -	$ 169,274,000	0%	$ -	$ -	$ 169,274,000	$ -	$ 169,274,000	$ -

APPENDIX C.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
ROADS AND RELATED

Project Description	Timing	DC Study Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
					% BTE	Replacement & BTE Shares	0% Reduction		Prior DC Funding	In-Period	Post Period
1.7 ROADS TO 2041 CONTINUED											
1.7.1 New East-West Street in McCleary District (Don Roadway to Logan)	2026 - 2035	$ 13,201,005	$ -	$ 13,201,005	0%	$ -	$ -	$ 13,201,005	$ -	$ 13,201,005	$ -
1.7.2 New East-West Street in Turning Basin District (Logan to Carlaw)	Post -	$ 4,367,451	$ -	$ 4,367,451	0%	$ -	$ -	$ 4,367,451	$ -	$ -	$ 4,367,451
1.7.3 Basin Street Extension in Media City (Don Roadway to Broadview)	2026 - 2035	$ 9,110,772	$ -	$ 9,110,772	0%	$ -	$ -	$ 9,110,772	$ -	$ 9,110,772	$ -
1.7.4 Basin Street Extension in Turning Basin District (Broadview to Carlaw)	Post -	$ 8,558,080	$ -	$ 8,558,080	0%	$ -	$ -	$ 8,558,080	$ -	$ -	$ 8,558,080
1.7.5 Replace Interim BRT with LRT on Commissioners (Don Roadway to Bro	2036 - 2041	$ -	$ -	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.7.6 Convert Broadview Interim BRT to LRT (Lake Shore to Commissioners)	2036 - 2041	$ 730,208	$ -	$ 730,208	0%	$ -	$ -	$ 730,208	$ -	$ 730,208	$ -
1.7.7 Underground Hydro Transmission Wires on Don Roadway and Commiss	2036 - 2041	$ 99,666,000	$ -	$ 99,666,000	0%	$ -	$ -	$ 99,666,000	$ -	$ 99,666,000	$ -
1.7.8 Relocate Existing Bouchette Hydro Underground Circuits	2026 - 2035	$ 17,402,000	$ -	$ 17,402,000	0%	$ -	$ -	$ 17,402,000	$ -	$ 17,402,000	$ -
1.7.9 Commissioners Street TTC/LRT Bridge	2026 - 2035	$ 31,348,279	$ -	$ 31,348,279	0%	$ -	$ -	$ 31,348,279	$ -	$ 31,348,279	$ -
1.7.10 Don Roadway (south of Commissioners)	2026 - 2035	$ 13,182,766	$ -	$ 13,182,766	0%	$ -	$ -	$ 13,182,766	$ -	$ 13,182,766	$ -
1.7.11 Caroline Extension	2026 - 2035	$ 6,381,943	$ -	$ 6,381,943	0%	$ -	$ -	$ 6,381,943	$ -	$ 6,381,943	$ -
1.7.12 Replace Interim BRT with LRT on Commissioners (Broadview to Carlaw)	Post -	$ 428,785	$ -	$ 428,785	0%	$ -	$ -	$ 428,785	$ -	$ -	$ 428,785
1.7.13 Replace Interim Sodded Condition with LRT on Commissioners (Carlaw	Post -	$ 761,417	$ -	$ 761,417	0%	$ -	$ -	$ 761,417	$ -	$ -	$ 761,417
1.7.14 Repair Cherry Street Bascule Bridge	2018 - 2025	$ 23,730,000	$ -	$ 23,730,000	0%	$ -	$ -	$ 23,730,000	$ -	$ 23,730,000	$ -
1.7.15 Cherry Street Upgrades (Ship Channel to Unwin)	2026 - 2035	$ 8,420,728	$ -	$ 8,420,728	3%	$ 237,500	$ -	$ 8,183,228	$ -	$ 8,183,228	$ -
1.7.16 Construct Broadview Bridge and Extension to Unwin	2036 - 2041	$ 73,020,066	$ -	$ 73,020,066	0%	$ -	$ -	$ 73,020,066	$ -	$ 73,020,066	$ -
1.7.17 Commissioners Street Upgrades and Protect for LRT (Carlaw to Leslie)	2026 - 2035	$ 25,304,175	$ -	$ 25,304,175	3%	$ 795,500	$ -	$ 24,508,675	$ -	$ 24,508,675	$ -
1.7.18 Unwin Avenue Realignment and Upgrades	2026 - 2035	$ 33,360,425	$ -	$ 33,360,425	5%	$ 1,687,500	$ -	$ 31,672,925	$ -	$ 31,672,925	$ -
1.7.19 Allowance for Relocation of PEC Infrastructure/Fill/New Circulating Chan	2026 - 2035	$ 19,775,000	$ -	$ 19,775,000	0%	$ -	$ -	$ 19,775,000	$ -	$ 19,775,000	$ -
1.7.20 Leslie Street Upgrades (Commissioners to Unwin)	2026 - 2035	$ 7,097,564	$ -	$ 7,097,564	5%	$ 371,000	$ -	$ 6,726,564	$ -	$ 6,726,564	$ -
1.7.21 Basin Street Bridge & Road Connections	Post - 0	$ 40,000,000	$ -	$ 40,000,000	0%	$ -	$ -	$ 40,000,000	$ -	$ -	$ 40,000,000
1.7.22 Munition Street Bridge & Road Connections	Post - 0	$ 30,000,000	$ -	$ 30,000,000	0%	$ -	$ -	$ 30,000,000	$ -	$ -	$ 30,000,000
SUBTOTAL ROADS TO 2041		**$ 1,077,274,565**	**$ 145,187,933**	**$ 932,086,633**		**$ 5,896,175**	**$ -**	**$ 926,190,458**	**$ -**	**$ 842,074,725**	**$ 84,115,733**
SUBTOTAL ROADS TO 2027		**$ 2,172,751,153**	**$ 376,314,611**	**$ 1,796,436,542**		**$ 625,727,153**	**$ -**	**$ 1,170,709,388**	**$ 7,506,736**	**$ 1,138,202,652**	**$ 25,000,000**
SUBTOTAL ROADS TO 2041		**$ 1,077,274,565**	**$ 145,187,933**	**$ 932,086,633**		**$ 5,896,175**	**$ -**	**$ 926,190,458**	**$ -**	**$ 842,074,725**	**$ 84,115,733**
TOTAL ROADS 2018-2027 and 2018-2041		**$ 3,250,025,718**	**$ 521,502,544**	**$ 2,728,523,174**		**$ 631,623,328**	**$ -**	**$ 2,096,899,846**	**$ 7,506,736**	**$ 1,980,277,377**	**$ 109,115,733**

ROADS 2018-2027		
Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$808,055,314
10-Year Growth in Population in New Permits Issued		252,390
Unadjusted Development Charge Per Capita		**$3,201.61**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$ 330,147,338
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$2,354.83**
ROADS 2018-2041		
Residential Development Charge Calculation		
Residential Share of 2018 - 2041 DC Eligible Costs	72%	$602,855,134
23-Year Growth in Population in New Units		540,750
Unadjusted Development Charge Per Capita		**$1,114.85**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2041 DC Eligible Costs	28%	$239,219,591
23-Year Growth in Employees in New Space		293,000
Unadjusted Development Charge Per Employee		**$816.45**

APPENDIX C.1
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
ROADS AND RELATED SERVICES
RESIDENTIAL DEVELOPMENT CHARGE (2018-2027)
(in $000)

ROADS 10-YEAR (RESIDENTIAL)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$59,758.2	$47,574.2	$24,130.7	$6,904.8	($20,785.7)	($48,451.1)	($63,492.4)	($51,221.7)	($21,799.9)	$13,224.8	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Roads 10-Year (Residential): Non Inflated	$94,701.7	$99,579.2	$95,744.9	$100,672.0	$98,902.1	$85,965.1	$61,299.2	$47,472.2	$41,093.7	$82,625.2	**$808,055.3**
- Roads 10-Year (Residential): Inflated	$94,701.7	$101,570.8	$99,613.0	$106,833.9	$107,054.8	$94,912.5	$69,032.8	$54,530.6	$48,147.8	$98,744.7	**$875,142.7**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$80,808.3	$77,134.2	$82,026.1	$79,649.4	$81,242.4	$82,867.2	$84,524.6	$86,215.1	$83,748.5	$85,423.4	**$823,639.1**
INTEREST											
- Interest on Opening Balance	$2,091.5	$1,665.1	$844.6	$241.7	($1,143.2)	($2,664.8)	($3,492.1)	($2,817.2)	($1,199.0)	$462.9	**($6,010.6)**
- Interest on In-year Transactions	($382.1)	($672.0)	($483.6)	($747.6)	($709.8)	($331.2)	$271.1	$554.5	$623.0	($366.3)	**($2,244.1)**
TOTAL REVENUE	$82,517.7	$78,127.3	$82,387.1	$79,143.5	$79,389.3	$79,871.2	$81,303.6	$83,952.4	$83,172.5	$85,520.0	**$815,384.5**
CLOSING CASH BALANCE	$47,574.2	$24,130.7	$6,904.8	($20,785.7)	($48,451.1)	($63,492.4)	($51,221.7)	($21,799.9)	$13,224.8	$0.0	

2018 Adjusted Charge Per Capita	**$2,980.75**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.1
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
ROADS AND RELATED SERVICES
RESIDENTIAL DEVELOPMENT CHARGE (2018-2041)
(in $000)

ROADS TO 2041 (RESIDENTIAL)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
OPENING CASH BALANCE	$0.0	($18,315.7)	($20,427.6)	($7,791.0)	$10,589.2	$30,144.6	$51,139.6	$73,268.1	$96,578.0	$105,563.1	$114,974.8	$124,830.3	$131,299.5
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS													
- Roads To 2041 (Residential): Non Inflated	$46,961.1	$28,319.4	$15,427.9	$9,642.4	$9,642.4	$9,311.8	$9,311.8	$9,311.8	$21,070.2	$21,070.2	$21,070.2	$21,070.2	$21,070.2
- Roads To 2041 (Residential): Inflated	$46,961.1	$28,885.8	$16,051.2	$10,232.5	$10,437.2	$10,281.0	$10,486.6	$10,696.4	$24,687.2	$25,180.9	$25,684.5	$26,198.2	$26,722.2
NEW RESIDENTIAL DEVELOPMENT													
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	23,980	21,150	21,150
REVENUE													
- DC Receipts: Inflated	$29,135.6	$27,810.9	$29,574.7	$28,717.7	$29,292.1	$29,877.9	$30,475.5	$31,085.0	$30,195.7	$30,799.6	$31,415.6	$28,262.2	$28,827.5
INTEREST													
- Interest on Opening Balance	$0.0	($1,007.4)	($1,123.5)	($428.5)	$370.6	$1,055.1	$1,789.9	$2,564.4	$3,380.2	$3,694.7	$4,024.1	$4,369.1	$4,595.5
- Interest on In-year Transactions	($490.2)	($29.6)	$236.7	$323.5	$330.0	$342.9	$349.8	$356.8	$96.4	$98.3	$100.3	$36.1	$36.8
TOTAL REVENUE	$28,645.4	$26,774.0	$28,687.8	$28,612.7	$29,992.7	$31,275.9	$32,615.2	$34,006.2	$33,672.3	$34,592.6	$35,540.0	$32,667.4	$33,459.8
CLOSING CASH BALANCE	($18,315.7)	($20,427.6)	($7,791.0)	$10,589.2	$30,144.6	$51,139.6	$73,268.1	$96,578.0	$105,563.1	$114,974.8	$124,830.3	$131,299.5	$138,037.1

ROADS TO 2041 (RESIDENTIAL)	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**TOTAL**
OPENING CASH BALANCE	$138,037.1	$145,053.4	$152,358.9	$159,964.8	$167,882.2	$176,123.2	$153,464.8	$129,436.9	$103,980.0	$77,032.4	$48,529.9	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS												
- Roads To 2041 (Residential): Non Inflated	$21,070.2	$21,070.2	$21,070.2	$21,070.2	$21,070.2	$42,370.7	$42,370.7	$42,370.7	$42,370.7	$42,370.7	$42,370.7	**$602,855.1**
- Roads To 2041 (Residential): Inflated	$27,256.6	$27,801.7	$28,357.8	$28,924.9	$29,503.4	$60,515.7	$61,726.0	$62,960.6	$64,219.8	$65,504.2	$66,814.3	**$796,089.9**
NEW RESIDENTIAL DEVELOPMENT												
- Population Growth in New Permits Issued	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	10,580	**541,150**
REVENUE												
- DC Receipts: Inflated	$29,404.0	$29,992.1	$30,591.9	$31,203.8	$31,827.9	$32,464.4	$33,113.7	$33,776.0	$34,451.5	$35,140.5	$17,930.1	**$725,365.9**
INTEREST												
- Interest on Opening Balance	$4,831.3	$5,076.9	$5,332.6	$5,598.8	$5,875.9	$6,164.3	$5,371.3	$4,530.3	$3,639.3	$2,696.1	$1,698.5	**$74,099.4**
- Interest on In-year Transactions	$37.6	$38.3	$39.1	$39.9	$40.7	($771.4)	($786.8)	($802.6)	($818.6)	($835.0)	($1,344.3)	**($3,375.3)**
TOTAL REVENUE	$34,272.9	$35,107.3	$35,963.6	$36,842.4	$37,744.4	$37,857.3	$37,698.1	$37,503.7	$37,272.2	$37,001.7	$18,284.4	**$796,089.9**
CLOSING CASH BALANCE	$145,053.4	$152,358.9	$159,964.8	$167,882.2	$176,123.2	$153,464.8	$129,436.9	$103,980.0	$77,032.4	$48,529.9	$0.0	

2018 Adjusted Charge Per Capita	**$1,074.72**

Allocation of Capital Program	
Residential Sector	71.6%
Non-Residential Sector	28.4%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.1
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
ROADS AND RELATED SERVICES
NON-RESIDENTIAL DEVELOPMENT CHARGE (2018-2027)
(in $000)

ROADS 10-YEAR (NON-RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$14,939.6	$8,518.4	($355.0)	($8,054.7)	($18,526.6)	($28,970.8)	($34,181.5)	($28,167.5)	($15,062.1)	$2,164.2	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Roads To 2041 (Non-Residential): Non Inflated	$38,692.3	$40,685.1	$39,118.5	$41,131.6	$40,408.5	$35,122.8	$25,045.0	$19,395.7	$16,789.7	$33,758.2	**$330,147.3**
- Roads To 2041 (Non-Residential): Inflated	$38,692.3	$41,498.8	$40,698.9	$43,649.2	$43,739.4	$38,778.4	$28,204.8	$22,279.6	$19,671.8	$40,344.1	**$357,557.3**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$31,934.1	$32,572.8	$33,224.2	$33,888.7	$34,566.5	$35,257.8	$35,963.0	$36,682.2	$37,415.9	$38,164.2	**$349,669.4**
INTEREST											
- Interest on Opening Balance	$522.9	$298.1	($19.5)	($443.0)	($1,019.0)	($1,593.4)	($1,880.0)	($1,549.2)	($828.4)	$75.7	**($6,435.7)**
- Interest on In-year Transactions	($185.9)	($245.5)	($205.6)	($268.4)	($252.3)	($96.8)	$135.8	$252.0	$310.5	($59.9)	**($616.0)**
TOTAL REVENUE	$32,271.1	$32,625.5	$32,999.2	$33,177.3	$33,295.3	$33,567.6	$34,218.8	$35,385.1	$36,898.0	$38,180.0	**$342,617.7**
CLOSING CASH BALANCE	$8,518.4	($355.0)	($8,054.7)	($18,526.6)	($28,970.8)	($34,181.5)	($28,167.5)	($15,062.1)	$2,164.2	$0.0	

2018 Adjusted Charge Per Employee	**$2,277.75**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.1
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
ROADS AND RELATED SERVICES
NON-RESIDENTIAL DEVELOPMENT CHARGE (2018-2041)
(in $000)

ROADS TO 2041 (NON-RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPENING CASH BALANCE	$0.0	($7,791.0)	($8,413.7)	($3,657.2)	$3,944.1	$12,040.7	$20,727.2	$29,883.0	$39,527.9	$44,119.8	$48,936.7	$50,950.9	$53,041.6
2018 - 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS													
- Roads To 2041 (Non-Residential): Non Inflated	$18,634.7	$11,237.5	$6,122.0	$3,826.2	$3,826.2	$3,695.0	$3,695.0	$3,695.0	$8,360.9	$8,360.9	$8,360.9	$8,360.9	$8,360.9
- Roads To 2041 (Non-Residential): Inflated	$18,634.7	$11,462.2	$6,369.3	$4,060.4	$4,141.6	$4,079.6	$4,161.2	$4,244.4	$9,796.1	$9,992.1	$10,191.9	$10,395.7	$10,603.7
NEW NON-RESIDENTIAL DEVELOPMENT													
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	10,914	10,914	10,914
REVENUE													
- DC Receipts: Inflated	$11,052.2	$11,273.3	$11,498.7	$11,728.7	$11,963.3	$12,202.5	$12,446.6	$12,695.5	$12,949.4	$13,208.4	$10,488.1	$10,697.9	$10,911.9
INTEREST													
- Interest on Opening Balance	$0.0	($428.5)	($462.8)	($201.1)	$138.0	$421.4	$725.5	$1,045.9	$1,383.5	$1,544.2	$1,712.8	$1,783.3	$1,856.5
- Interest on In-year Transactions	($208.5)	($5.2)	$89.8	$134.2	$136.9	$142.2	$145.0	$147.9	$55.2	$56.3	$5.2	$5.3	$5.4
TOTAL REVENUE	$10,843.7	$10,839.6	$11,125.7	$11,661.7	$12,238.2	$12,766.1	$13,317.0	$13,889.3	$14,388.1	$14,808.9	$12,206.1	$12,486.5	$12,773.7
CLOSING CASH BALANCE	($7,791.0)	($8,413.7)	($3,657.2)	$3,944.1	$12,040.7	$20,727.2	$29,883.0	$39,527.9	$44,119.8	$48,936.7	$50,950.9	$53,041.6	$55,211.7

ROADS TO 2041 (NON-RESIDENTIAL)	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE	$55,211.7	$57,463.9	$59,801.4	$62,227.3	$64,744.7	$67,357.0	$57,667.2	$47,397.4	$36,522.4	$25,016.1	$12,851.3	
2018 - 2041 NON-RESIDENTIAL FUNDING REQUIREMENTS												
- Roads To 2041 (Non-Residential): Non Inflated	$8,360.9	$8,360.9	$8,360.9	$8,360.9	$8,360.9	$16,813.1	$16,813.1	$16,813.1	$16,813.1	$16,813.1	$16,813.1	**$239,219.6**
- Roads To 2041 (Non-Residential): Inflated	$10,815.7	$11,032.0	$11,252.7	$11,477.7	$11,707.3	$24,013.3	$24,493.6	$24,983.4	$25,483.1	$25,992.8	$26,512.6	**$315,897.3**
NEW NON-RESIDENTIAL DEVELOPMENT												
- Employees in New Space	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	**293,000**
REVENUE												
- DC Receipts: Inflated	$11,130.1	$11,352.7	$11,579.7	$11,811.3	$12,047.6	$12,288.5	$12,534.3	$12,785.0	$13,040.7	$13,301.5	$13,567.5	**$288,555.4**
INTEREST												
- Interest on Opening Balance	$1,932.4	$2,011.2	$2,093.0	$2,178.0	$2,266.1	$2,357.5	$2,018.4	$1,658.9	$1,278.3	$875.6	$449.8	**$28,637.7**
- Interest on In-year Transactions	$5.5	$5.6	$5.7	$5.8	$6.0	($322.4)	($328.9)	($335.5)	($342.2)	($349.0)	($356.0)	**($1,295.8)**
TOTAL REVENUE	$13,068.0	$13,369.5	$13,678.5	$13,995.1	$14,319.6	$14,323.6	$14,223.8	$14,108.4	$13,976.8	$13,828.0	$13,661.3	**$315,897.3**
CLOSING CASH BALANCE	$57,463.9	$59,801.4	$62,227.3	$64,744.7	$67,357.0	$57,667.2	$47,397.4	$36,522.4	$25,016.1	$12,851.3	($0.0)	

2018 Adjusted Charge Per Employee	**$788.32**

Allocation of Capital Program	
Residential Sector	71.6%
Non-Residential Sector	28.4%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

Appendix C.2

Water Services

HEMSON

Appendix C.2

Water Services
Technical Appendix

Toronto Water is responsible for the emplacement and operation of the City's water mains and water treatment facilities. Toronto Water is also responsible for the City's Sanitary Sewer and Storm Water Management facilities which are discussed in Appendix C.3 and C.4, respectively.

This appendix provides the 2018–2027 and 2018-2041 development-related capital forecast for water, the calculation of the "unadjusted" DC, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by Toronto Water and Waterfront Toronto staff and are based on the current and proposed capital budgets, previous DC background studies, and other long-range planning documents.

Water facilities included in the DC capital forecast are required to achieve health and safety standards as identified in relevant legislation including Provincial regulations, other relevant legislation as well as Toronto Water and Toronto Fire standards. As such, in accordance with section 4(3) of O.Reg. 82/98, the ten-year historical service level does not apply.

The following discusses the individual components included in the Water services category. The analysis is set out in the tables which follow. The tables include:

Table 1	2018–2027 and 2018-2041 Development-Related Capital forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 2	Cash Flow Analysis

A. Development-Related Capital Forecast

The development-related capital forecast that will benefit development occurring over the 2018–2027 period includes a variety of projects for the provision of water service in the City and amounts to a total gross cost of $1,370.34 million, as shown in Table 1. The projects that will benefit development occurring over the 2018-2041 planning period include projects such as the remaining growth shares of prior projects ($219.09 million), plant related costs ($232.34 million), storage and pumping stations ($50.04 million), trunks ($172.72 million), mains ($90.56 million), and amount to a total gross cost of $764.75 million. In total, the capital forecast for the 2018-2027 and 2018-2041 planning period equals $2,135.09 million.

Approximately $219.09 million of the capital forecast relates to projects that were identified in the City's last DC Study. These projects have been partially funded and carried forward into the current DC Background Study. The following approach was used to determine the amounts to be carried forward. The City's DC reserve fund and accounting statements were reviewed to identify projects in the 2018 DC Background Study that were undertaken. The eligible project costs were determined based on the DC eligible shares identified in the 2013 DC Study and adjusted for non-statutory discounts. After these adjustments, the remaining DC-eligible share is carried forward to this DC Study capital forecast in the gross project cost column.

B. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

In total, $108.15 million in grants, subsidies and other recoveries are applied to the development-related capital projects. Of this, $1.63 million is allocated within the 2018-2027 planning period and $106.52 million is allocated within the 2018-2041 period.

The grants, subsidies and other recoveries include funding from the provincial and federal government as well as contributions from the Regional Municipality of York for shared infrastructure projects.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development. Generally speaking, shares have been deducted from the net cost of projects that account for portions of the project that relate to state-of-good-repair or the replacement or reconstruction of existing facilities. Those projects that are completely new are deemed to be entirely growth-related and no replacement shares have been deducted from the net cost.

If an existing pipe is in a good condition and needs to be upsized solely because of development in the area, no benefit to existing share is applied. For the majority of infrastructure upgrades or replacements that were deemed to provide a benefit to the existing community, shares of current future population and employment growth over the 2018-2027 and 2018-2041 planning periods were used.

In total, $1,067.60 million is identified as the replacement and benefit to existing share in both the 2018-2027 and 2018-2041 planning horizons.

3. Legislated Ten per cent Reduction

As this service is identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs is not required.

4. Available DC Reserve Funds

As of December 31, 2016, the reserve fund balance for Water was $111.12 million. This amount has been removed from the development charge calculation and accounted for the in the cash flow analysis.

5. Post-Period Benefit

Approximately $2.86 million of gross project costs in post-period (post-2041) DC shares is identified. Post-period shares are applied to prior projects, plant, trunk and transmission main.

6. 2018-2027 and 2018-2041 DC Eligible Development Related Costs

After the statutory deductions, the development charge eligible costs that are recovered in-period 2018-2027 is reduced to $523.96 million and in-period

2018-2041 is reduced to $432.52 million, for a total of $956.48 million in DC eligible costs.

C. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

The discounted development-related costs within the 2018-2027 planning period have been allocated 71 per cent to residential development and 29 per cent to non-residential development. For the 2018-2041 planning period, discounted development-related costs have been allocated 72 per cent to residential and 28 per cent to non-residential development. These percentages are based on shares of ten-year (2018-2027) and 23 year (2018-2041) shares of net population and employment growth.

The $371.98 million identified for 2018-2027 in residential development-related net capital costs is divided by the population forecast from new permits issued units of 252,400, yielding a per capita charge of $1,473.84 before cash flow adjustments. The non-residential unadjusted charge per employee is calculated by taking the $151.98 million allocated to the non-residential sector and dividing it by 140,200 employees. This yields an unadjusted charge of $1,084.03 per employee.

The $41.69 million identified for 2018-2041 in residential development-related net capital costs is divided by the population forecast from new permits issued units of 540,750, yielding a per capita charge of $77.09 before cash flow adjustments. The non-residential unadjusted charge per employee is calculated by taking the $16.54 million allocated to the non-residential sector and dividing it by 293,000 employees. This yields an unadjusted charge of $56.46 per employee.

D. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of DCs. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the DC rate that is required to

finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate DC rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 2 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee DCs. The 2018-2027 and 2018-2041 planning periods are cash flowed separately but combined to total the adjusted charge per capita and per employee. After cash flow considerations, the residential calculated charge increases to $1,971.45 per capita. The non-residential charge after cash flowing increases to $1,516.02 per employee.

The following table summarizes the calculation of the Water services DC.

WATER SERVICES					
2018-2027 & 2018-2041		Unadjusted		**Adjusted**	
Development-Related Capital Program		Development Charge		**Development Charge**	
Total	Net DC Recoverable	$/capita	$/employee	**$/capita**	**$/employee**
$764,754,236	$432,519,096	$1,550.93	$1,140.48	**$1,971.45**	**$1,516.02**

APPENDIX C.2
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
WATER SERVICES

	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Prior Reserves	Available DC Reserves	In-Period Costs	Post-Period Costs
2.0	**WATER (2027) PROJECTS**												
2.1	**Mains**												
2.1.1	NEW WM	2018 - 2020	$ 560,000	$ -	$ 560,000	0%	$ -	$ -	$ 560,000	$ -	$ -	$ 560,000	$ -
2.1.2	NEW WM - 10 YEAR	2021 - 2027	$ 3,500,000	$ -	$ 3,500,000	0%	$ -	$ -	$ 3,500,000	$ -	$ -	$ 3,500,000	$ -
2.1.3	2013 WM REPLC - UPGRADES	2018 - 2019	$ 111,225	$ -	$ 111,225	50%	$ 55,613	$ -	$ 55,613	$ -	$ -	$ 55,613	$ -
2.1.4	DIST W/M REPLACEMENT - 2014	2018 - 2019	$ 611,000	$ -	$ 611,000	75%	$ 458,250	$ -	$ 152,750	$ -	$ -	$ 152,750	$ -
2.1.5	WATERMAIN UPGRADES - 2014	2018 - 2018	$ 8,000	$ -	$ 8,000	50%	$ 4,000	$ -	$ 4,000	$ -	$ -	$ 4,000	$ -
2.1.6	DIST W/M REPLACEMENT - 2015	2018 - 2019	$ 5,264,000	$ -	$ 5,264,000	75%	$ 3,948,000	$ -	$ 1,316,000	$ -	$ -	$ 1,316,000	$ -
2.1.7	WATERMAIN UPGRADES - 2015	2018 - 2019	$ 445,274	$ -	$ 445,274	50%	$ 222,637	$ -	$ 222,637	$ -	$ -	$ 222,637	$ -
2.1.8	DIST W/M REPLACEMENT - 2016	2018 - 2019	$ 32,081,000	$ -	$ 32,081,000	75%	$ 24,060,750	$ -	$ 8,020,250	$ -	$ -	$ 8,020,250	$ -
2.1.9	WATERMAIN UPGRADES - 2016	2018 - 2019	$ 7,587,000	$ -	$ 7,587,000	50%	$ 3,793,500	$ -	$ 3,793,500	$ -	$ -	$ 3,793,500	$ -
2.1.10	DIST W/M REPLACEMENT - 2017	2018 - 2020	$ 70,356,000	$ -	$ 70,356,000	75%	$ 52,767,000	$ -	$ 17,589,000	$ -	$ -	$ 17,589,000	$ -
2.1.11	WATERMAIN UPGRADES - 2017	2018 - 2019	$ 13,345,000	$ -	$ 13,345,000	50%	$ 6,672,500	$ -	$ 6,672,500	$ -	$ -	$ 6,672,500	$ -
2.1.12	DIST W/M REPLACEMENT - 2018	2018 - 2021	$ 91,877,000	$ -	$ 91,877,000	75%	$ 68,907,750	$ -	$ 22,969,250	$ -	$ -	$ 22,969,250	$ -
2.1.13	WATERMAIN UPGRADES - 2018	2018 - 2020	$ 25,297,000	$ -	$ 25,297,000	50%	$ 12,648,500	$ -	$ 12,648,500	$ -	$ -	$ 12,648,500	$ -
2.1.14	DIST W/M REPLACEMENT - 2019	2019 - 2022	$ 82,536,000	$ -	$ 82,536,000	75%	$ 61,902,000	$ -	$ 20,634,000	$ -	$ -	$ 20,634,000	$ -
2.1.15	WATERMAIN UPGRADES - 2019	2019 - 2022	$ 36,142,000	$ -	$ 36,142,000	50%	$ 18,071,000	$ -	$ 18,071,000	$ -	$ -	$ 18,071,000	$ -
2.1.16	10 YEAR WATERMAIN REPLACEMENT	2020 - 2027	$ 737,000,000	$ -	$ 737,000,000	75%	$ 552,750,000	$ -	$ 184,250,000	$ -	$ -	$ 184,250,000	$ -
2.1.17	10 YEAR WATERMAIN UPGRADES	2020 - 2027	$ 20,644,000	$ -	$ 20,644,000	50%	$ 10,322,000	$ -	$ 10,322,000	$ -	$ -	$ 10,322,000	$ -
2.1.18	REGENT PARK CAPITAL CONTRIBUTION - PHASE 3 - 5	2018 - 2024	$ 4,915,000	$ -	$ 4,915,000	0%	$ -	$ -	$ 4,915,000	$ -	$ -	$ 4,915,000	$ -
2.1.19	LAWRENCE ALLAN REVITALIZATION PLAN - INTERNAL	2018 - 2022	$ 23,353,000	$ -	$ 23,353,000	0%	$ -	$ -	$ 23,353,000	$ -	$ -	$ 23,353,000	$ -
2.1.20	LAWRENCE ALLAN REVITALIZATION PLAN - EXTERNAL	2019 - 2021	$ 8,184,000	$ -	$ 8,184,000	0%	$ -	$ -	$ 8,184,000	$ -	$ -	$ 8,184,000	$ -
2.1.24	CHURCH ST FROM BLOOR TO CARLTON	2022 - 2022	$ 3,873,000	$ -	$ 3,873,000	50%	$ 1,936,500	$ -	$ 1,936,500	$ -	$ -	$ 1,936,500	$ -
2.1.25	RICHMOND ST E FROM SHERBOURNE TO PARLIAMENT	2022 - 2022	$ 1,625,000	$ -	$ 1,625,000	50%	$ 812,500	$ -	$ 812,500	$ -	$ -	$ 812,500	$ -
2.1.26	PARLIAMENT FROM WELLESLEY TO CARLTON	2022 - 2022	$ 1,544,000	$ -	$ 1,544,000	0%	$ -	$ -	$ 1,544,000	$ -	$ -	$ 1,544,000	$ -
2.1.27	EASTERN AVE FROM TRINITY ST TO CHERRY ST	2022 - 2022	$ 818,000	$ -	$ 818,000	0%	$ -	$ -	$ 818,000	$ -	$ -	$ 818,000	$ -
2.1.28	KING E FROM QUEEN ST E TO SUMACH	2022 - 2022	$ 1,318,000	$ -	$ 1,318,000	0%	$ -	$ -	$ 1,318,000	$ -	$ -	$ 1,318,000	$ -
2.1.29	GERRARD ST W FROM YONGE TO LA PLANTE AVE	2022 - 2022	$ 1,366,000	$ -	$ 1,366,000	0%	$ -	$ -	$ 1,366,000	$ -	$ -	$ 1,366,000	$ -
2.1.30	GERRARD ST E FROM JARVIS TO DON VALLEY	2023 - 2023	$ 5,983,000	$ -	$ 5,983,000	50%	$ 2,991,500	$ -	$ 2,991,500	$ -	$ -	$ 2,991,500	$ -
2.1.31	BLOOR ST W FROM CPR TRACKS TO GARDENVALE	2023 - 2023	$ 2,942,000	$ -	$ 2,942,000	0%	$ -	$ -	$ 2,942,000	$ -	$ -	$ 2,942,000	$ -
2.1.32	BLOOR ST W FROM EAST MALL TO KIPLING	2024 - 2024	$ 7,107,000	$ -	$ 7,107,000	0%	$ -	$ -	$ 7,107,000	$ -	$ -	$ 7,107,000	$ -
2.1.33	QUEEN ST W FROM FULLER TO FENNING	2024 - 2024	$ 5,701,000	$ -	$ 5,701,000	50%	$ 2,850,500	$ -	$ 2,850,500	$ -	$ -	$ 2,850,500	$ -
2.1.34	BEDFORD RD FROM BLOOR TO DAVENPORT	2024 - 2024	$ 2,803,000	$ -	$ 2,803,000	50%	$ 1,401,500	$ -	$ 1,401,500	$ -	$ -	$ 1,401,500	$ -
2.1.35	HARBORD ST FROM BATHURST TO ST.GEORGE	2025 - 2025	$ 3,880,000	$ -	$ 3,880,000	50%	$ 1,940,000	$ -	$ 1,940,000	$ -	$ -	$ 1,940,000	$ -
2.1.36	BEVERLEY ST FROM QUEEN TO COLLEGE	2025 - 2025	$ 4,320,000	$ -	$ 4,320,000	50%	$ 2,160,000	$ -	$ 2,160,000	$ -	$ -	$ 2,160,000	$ -
2.1.37	LANSDOWNE AVE FROM DUPONT TO WALLACE	2025 - 2025	$ 2,066,000	$ -	$ 2,066,000	0%	$ -	$ -	$ 2,066,000	$ -	$ -	$ 2,066,000	$ -
2.1.38	EVANS AVE FROM ROYAL YORK TO ISLINGTON	2025 - 2025	$ 3,737,000	$ -	$ 3,737,000	0%	$ -	$ -	$ 3,737,000	$ -	$ -	$ 3,737,000	$ -
2.1.39	JANE ST FROM WESTON TO EMMETT	2025 - 2025	$ 534,000	$ -	$ 534,000	0%	$ -	$ -	$ 534,000	$ -	$ -	$ 534,000	$ -
2.1.40	KEELE FROM BLOOR TO GLENLAKE	2025 - 2025	$ 1,684,000	$ -	$ 1,684,000	0%	$ -	$ -	$ 1,684,000	$ -	$ -	$ 1,684,000	$ -
2.1.41	LAKESHORE AVE W FROM FOURTEENTH TO TWENTYFOURTH	2026 - 2026	$ 3,416,000	$ -	$ 3,416,000	0%	$ -	$ -	$ 3,416,000	$ -	$ -	$ 3,416,000	$ -
2.1.42	MAIN ST FROM DANFORTH TO DONCASTER	2026 - 2026	$ 1,755,000	$ -	$ 1,755,000	0%	$ -	$ -	$ 1,755,000	$ -	$ -	$ 1,755,000	$ -
2.1.43	YONGE ST (EAST SIDE) FROM KING TO FRONT ST	2026 - 2026	$ 1,119,000	$ -	$ 1,119,000	50%	$ 559,500	$ -	$ 559,500	$ -	$ -	$ 559,500	$ -
2.1.44	KING ST W (NORTH SIDE) FROM SIMCOE TO BATHURST	2026 - 2026	$ 5,910,000	$ -	$ 5,910,000	0%	$ -	$ -	$ 5,910,000	$ -	$ -	$ 5,910,000	$ -
2.1.45	QUEEN ST E (SOUTH SIDE) FROM BOND TO JARVIS	2026 - 2026	$ 1,188,000	$ -	$ 1,188,000	0%	$ -	$ -	$ 1,188,000	$ -	$ -	$ 1,188,000	$ -
2.1.46	JARVIS FROM COLLEGE TO BLOOR	2027 - 2027	$ 4,725,000	$ -	$ 4,725,000	50%	$ 2,362,500	$ -	$ 2,362,500	$ -	$ -	$ 2,362,500	$ -
2.1.47	QUEEN ST E (SOUTH SIDE) FROM PARLIAMENT TO RIVER	2027 - 2027	$ 2,865,000	$ -	$ 2,865,000	50%	$ 1,432,500	$ -	$ 1,432,500	$ -	$ -	$ 1,432,500	$ -
2.1.48	KING ST W FROM JAMESON TO DUFFERIN	2027 - 2027	$ 3,402,000	$ -	$ 3,402,000	0%	$ -	$ -	$ 3,402,000	$ -	$ -	$ 3,402,000	$ -
2.1.49	ISLINGTON AVE FROM BLOOR TO SIX POINT	2027 - 2027	$ 3,997,000	$ -	$ 3,997,000	0%	$ -	$ -	$ 3,997,000	$ -	$ -	$ 3,997,000	$ -
2.1.50	YONGE ST FROM DAVISVILLE TO EGLINTON	2027 - 2027	$ 4,337,000	$ -	$ 4,337,000	0%	$ -	$ -	$ 4,337,000	$ -	$ -	$ 4,337,000	$ -
2.1.51	YONGE ST FROM ST.CLAIR TO HEATH	2027 - 2027	$ 1,072,000	$ -	$ 1,072,000	0%	$ -	$ -	$ 1,072,000	$ -	$ -	$ 1,072,000	$ -
2.1.52	YONGE ST FROM HEATH TO HEATH (CROSSING YONGE)	2027 - 2027	$ 462,000	$ -	$ 462,000	0%	$ -	$ -	$ 462,000	$ -	$ -	$ 462,000	$ -
2.1.53	ST.CLAIR AVE E FROM YONGE TO AVOCA	2027 - 2027	$ 1,585,000	$ -	$ 1,585,000	0%	$ -	$ -	$ 1,585,000	$ -	$ -	$ 1,585,000	$ -
2.1.54	MOUNT PLEASANT RD FROM EGLINTON TO DAVISVILLE	2027 - 2027	$ 4,342,000	$ -	$ 4,342,000	0%	$ -	$ -	$ 4,342,000	$ -	$ -	$ 4,342,000	$ -
2.1.55	BATHRUST FROM BROOK TO LAWRENCE	2027 - 2027	$ 6,014,000	$ -	$ 6,014,000	0%	$ -	$ -	$ 6,014,000	$ -	$ -	$ 6,014,000	$ -
2.1.56	DANFORTH AVE FROM MAIN ST TO SIBLEY	2027 - 2027	$ 3,521,000	$ -	$ 3,521,000	0%	$ -	$ -	$ 3,521,000	$ -	$ -	$ 3,521,000	$ -
2.1.57	KINGSTON RD FROM BRIMLEY TO RANDAL	2027 - 2027	$ 4,160,000	$ -	$ 4,160,000	0%	$ -	$ -	$ 4,160,000	$ -	$ -	$ 4,160,000	$ -
2.1.58	LAKESHORE AVE W FROM DWIGHT TO LAKE	2027 - 2027	$ 3,891,000	$ -	$ 3,891,000	0%	$ -	$ -	$ 3,891,000	$ -	$ -	$ 3,891,000	$ -
2.1.59	LAKESHORE AVE W FROM FORTY SECOND TO THIRTY SECOND	2027 - 2027	$ 6,994,000	$ -	$ 6,994,000	0%	$ -	$ -	$ 6,994,000	$ -	$ -	$ 6,994,000	$ -
2.1.60	UNALLCOATED PROJECTS	2018 - 2027	$ 60,000,000	$ -	$ 60,000,000	0%	$ -	$ -	$ 60,000,000	$ -	$ -	$ 60,000,000	$ -
	Subtotal Mains		**$ 1,339,872,499**	**$ -**	**$ 1,339,872,499**		**$ 835,030,500**	**$ -**	**$ 504,842,000**	**$ -**	**$ -**	**$ 504,842,000**	**$ -**
2.2	**Studies**												
2.2.1	WATERMAIN ASSET PLANNING	2018 - 2024	$ 1,999,000	$ 791,286	$ 1,207,714	75%	$ 905,786	$ -	$ 301,929	$ -	$ -	$ 301,929	$ -
2.2.2	JOS UPDATE PHASE II	2018 - 2019	$ 1,672,000	$ 836,000	$ 836,000	0%	$ -	$ -	$ 836,000	$ -	$ -	$ 836,000	$ -
2.2.3	ASSET MGMT SYSTEM IMPLEMENTATION	2018 - 2025	$ 8,315,000	$ -	$ 8,315,000	75%	$ 6,236,250	$ -	$ 2,078,750	$ -	$ -	$ 2,078,750	$ -
2.2.4	WATERMAIN ASSET PLANNING - 10 YEAR	2019 - 2027	$ 3,435,000	$ -	$ 3,435,000	75%	$ 2,576,250	$ -	$ 858,750	$ -	$ -	$ 858,750	$ -
2.2.5	ICI INDOOR WATER AUDIT	2018 - 2022	$ 1,800,000	$ -	$ 1,800,000	0%	$ -	$ -	$ 1,800,000	$ -	$ -	$ 1,800,000	$ -
2.2.6	PUBLIC EDUCATION & PROMOTIONS	2018 - 2022	$ 525,000	$ -	$ 525,000	0%	$ -	$ -	$ 525,000	$ -	$ -	$ 525,000	$ -
2.2.7	ANCILLARY COSTS	2018 - 2022	$ 420,000	$ -	$ 420,000	0%	$ -	$ -	$ 420,000	$ -	$ -	$ 420,000	$ -
2.2.8	WEP - FUTURE -ICI	2023 - 2027	$ 2,600,000	$ -	$ 2,600,000	0%	$ -	$ -	$ 2,600,000	$ -	$ -	$ 2,600,000	$ -
2.2.9	2021 JOS UPDATE	2021 - 2022	$ 2,000,000	$ -	$ 2,000,000	0%	$ -	$ -	$ 2,000,000	$ -	$ -	$ 2,000,000	$ -
2.2.10	PD4 HYDRAULIC STUDY	2019 - 2020	$ 500,000	$ -	$ 500,000	0%	$ -	$ -	$ 500,000	$ -	$ -	$ 500,000	$ -
2.2.11	10 YEAR PDS HYDRAULIC STUDIES	2021 - 2026	$ 2,000,000	$ -	$ 2,000,000	0%	$ -	$ -	$ 2,000,000	$ -	$ -	$ 2,000,000	$ -
2.2.12	INTEGRATE DEVELOPMENT RELATED ASSET INFO INTO TWAG FOR CAPACITY	2019 - 2021	$ 750,000	$ -	$ 750,000	0%	$ -	$ -	$ 750,000	$ -	$ -	$ 750,000	$ -
2.2.13	FIRE FLOW CRITERIA & STANDARDS REVIEW	2019 - 2020	$ 150,000	$ -	$ 150,000	0%	$ -	$ -	$ 150,000	$ -	$ -	$ 150,000	$ -
2.2.14	FIELD MONITORING TO FACILITATE CAPACITY ANALYSIS	2019 - 2021	$ 3,000,000	$ -	$ 3,000,000	0%	$ -	$ -	$ 3,000,000	$ -	$ -	$ 3,000,000	$ -
2.2.15	WATER DISTRIBUTION SYSTEM RESILIENCY STUDY	2022 - 2024	$ 300,000	$ -	$ 300,000	0%	$ -	$ -	$ 300,000	$ -	$ -	$ 300,000	$ -
2.2.16	Delivery of Growth-Related Capital Program	2018 - 2027	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ -	$ 1,000,000	$ -	$ -	$ 1,000,000	$ -
	Subtotal Studies		**$ 30,466,000**	**$ 1,627,286**	**$ 28,838,714**		**$ 9,718,286**	**$ -**	**$ 19,120,429**	**$ -**	**$ -**	**$ 19,120,429**	**$ -**
	SUBTOTAL WATER (2027) PROJECTS		**$ 1,370,338,499**	**$ 1,627,286**	**$ 1,368,711,213**		**$ 844,748,785**	**$ -**	**$ 523,962,428**	**$ -**	**$ -**	**$ 523,962,428**	**$ -**

APPENDIX C.2
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
WATER SERVICES

Project Description		Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Prior Reserves	Available DC Reserves	In-Period Costs	Post-Period Costs
2.0 WATER (2041) PROJECTS													
2.3 Prior Projects (Remaining Growth Shares Only)													
2.3.1 HORGAN EXPANSN-STUDY/ENVIR ASSES	DESIGN	2018 - 2018	$ 3,403,075	$ -	$ 3,403,075	0%	$ -	$ -	$ 3,403,075	$ -	$ -	$ 3,403,075	$ -
2.3.2 HORGAN EXPANSN-STUDY/ENVIR ASSES	PLANT EXPANSION - CONSTRUCTION	2018 - 2018	$ 82,107,406	$ -	$ 82,107,406	0%	$ -	$ -	$ 82,107,406	$ -	$ -	$ 82,107,406	$ -
2.3.3 ISLAND EQUIP R&R	CHEMICAL & RESIDUALS MANAGMENT CONST	2018 - 2018	$ 629,845	$ -	$ 629,845	0%	$ -	$ -	$ 629,845	$ -	$ -	$ 629,845	$ -
2.3.4 CLARK F.P. EQUIPMENT R&R	PROCESS EQUIPMENT UPGRADE ENGINEERING	2018 - 2018	$ 574,616	$ -	$ 574,616	0%	$ -	$ -	$ 574,616	$ -	$ -	$ 574,616	$ -
2.3.5 CLARK F.P. EQUIPMENT R&R	PROCESS EQUIPMENT UPGRADE CONSTRUCTION	2018 - 2018	$ 5,984,976	$ -	$ 5,984,976	0%	$ -	$ -	$ 5,984,976	$ -	$ -	$ 5,984,976	$ -
2.3.6 ENGINEERING STUDIES	CORROSION CONTROL	2018 - 2018	$ 582,548	$ -	$ 582,548	0%	$ -	$ -	$ 582,548	$ -	$ -	$ 582,548	$ -
2.3.7 DUFFERIN RESERVOIR EXTENSION	DUFFERIN RESERVOIR EXTENSION	2018 - 2018	$ 782,413	$ -	$ 782,413	0%	$ -	$ -	$ 782,413	$ -	$ -	$ 782,413	$ -
2.3.8 DUFFERIN RESERVOIR EXTENSION	MILLIKEN P.S.&RESERVOIR EXT-DESIGN&CONT	2018 - 2018	$ 898,672	$ -	$ 898,672	0%	$ -	$ -	$ 898,672	$ -	$ -	$ 898,672	$ -
2.3.9 DUFFERIN RESERVOIR EXTENSION	DUFFERIN RES.EXT - CONSTRUCTION	2018 - 2018	$ 22,252,007	$ -	$ 22,252,007	0%	$ -	$ -	$ 22,252,007	$ -	$ -	$ 22,252,007	$ -
2.3.10 DUFFERIN RESERVOIR EXTENSION	MILLIKEN P.S.&RESERVOIR EXT-CONSTRUCTION	2018 - 2018	$ 30,787,454	$ -	$ 30,787,454	0%	$ -	$ -	$ 30,787,454	$ -	$ -	$ 30,787,454	$ -
2.3.11 TRUNK W/MAIN REPLACEMENT	W/M AVENUE RD-LAWRENCE	2018 - 2018	$ 1,344,228	$ -	$ 1,344,228	0%	$ -	$ -	$ 1,344,228	$ -	$ -	$ 1,344,228	$ -
2.3.12 TRUNK W/MAIN REPLACEMENT	AVENUE RD WM CONSTRUCTION - HI LEVELTO	2018 - 2018	$ 34,191,351	$ -	$ 34,191,351	0%	$ -	$ -	$ 34,191,351	$ -	$ -	$ 34,191,351	$ -
2.3.13 TRUNK W/MAIN EXPANSION	W/M HORGAN PLANT TO ELLESMERE	2018 - 2018	$ 767,688	$ -	$ 767,688	0%	$ -	$ -	$ 767,688	$ -	$ -	$ 767,688	$ -
2.3.14 TRUNK W/M ENHANCEMENT	BATHURST-DUPONT W/M - ENGINEERING	2018 - 2018	$ 582,469	$ -	$ 582,469	0%	$ -	$ -	$ 582,469	$ -	$ -	$ 582,469	$ -
2.3.15 TRUNK W/MAIN EXPANSION	CONSTRUCTION ON WATER MAINS-HORGAN TO	2018 - 2018	$ 990,052	$ -	$ 990,052	0%	$ -	$ -	$ 990,052	$ -	$ -	$ 990,052	$ -
2.3.16 TRUNK W/M ENHANCEMENT	SPADINA-RIVER WM CONSTRUCTION	2018 - 2018	$ 2,685,460	$ -	$ 2,685,460	0%	$ -	$ -	$ 2,685,460	$ -	$ -	$ 2,685,460	$ -
2.3.17 PUMPING EQUIPMENT - RICHVIEW PS	PUMPING EQUIPMENT - RICHVIEW PS	2018 - 2018	$ 259,456	$ -	$ 259,456	0%	$ -	$ -	$ 259,456	$ -	$ -	$ 259,456	$ -
2.3.18 TRANSMISSION R&R	PUMPING EQUIPMENT - PARKDALE, WM JOHNSON	2018 - 2018	$ 1,969,628	$ -	$ 1,969,628	0%	$ -	$ -	$ 1,969,628	$ -	$ -	$ 1,969,628	$ -
2.3.19 DIST W/MAINS NEW	DIST W/MAINS NEW	2018 - 2018	$ 489,197	$ -	$ 489,197	0%	$ -	$ -	$ 489,197	$ -	$ -	$ 489,197	$ -
2.3.20 TRUNK W/M EXPANSION	NEILSON-SHEPPARD WM CONSTRUCTION	2018 - 2018	$ 7,029,354	$ -	$ 7,029,354	0%	$ -	$ -	$ 7,029,354	$ -	$ -	$ 7,029,354	$ -
2.3.21 TRUNK WATERMAIN ENHANCEMENTS	GO HAGERMAN CROSSING	2018 - 2018	$ 1,130,983	$ -	$ 1,130,983	0%	$ -	$ -	$ 1,130,983	$ -	$ -	$ 1,130,983	$ -
2.3.22 DIST W/M REPLACEMENT	DIST W/M REPLACEMENT - 2009	2018 - 2018	$ 8,276,162	$ -	$ 8,276,162	0%	$ -	$ -	$ 8,276,162	$ -	$ -	$ 8,276,162	$ -
2.3.23 TRUNK WATERMAIN ENHANCEMENTS	D4 IMPROVEMENTS	2018 - 2018	$ 384,790	$ -	$ 384,790	0%	$ -	$ -	$ 384,790	$ -	$ -	$ 384,790	$ -
2.3.24 DIST W/M REPLACEMENT	2010 WM REPLACEMENT PROGRAM	2018 - 2018	$ 6,047,153	$ -	$ 6,047,153	0%	$ -	$ -	$ 6,047,153	$ -	$ -	$ 6,047,153	$ -
2.3.25 DIST W/M REPLACEMENT	DIST WM REPLACEMENT - 2011	2018 - 2018	$ 945,658	$ -	$ 945,658	0%	$ -	$ -	$ 945,658	$ -	$ -	$ 945,658	$ -
2.3.26 DIST W/M REPLACEMENT	WATERMAIN UPGRADES	2018 - 2018	$ 410,688	$ -	$ 410,688	0%	$ -	$ -	$ 410,688	$ -	$ -	$ 410,688	$ -
2.3.27 DIST W/M REPLACEMENT	WATERMAIN UPGRADES - 2015	2018 - 2018	$ 710,713	$ -	$ 710,713	0%	$ -	$ -	$ 710,713	$ -	$ -	$ 710,713	$ -
2.3.28 DIST W/M REPLACEMENT	DIST W/M REPLACEMENT - 2016	2018 - 2018	$ 1,723,951	$ -	$ 1,723,951	0%	$ -	$ -	$ 1,723,951	$ -	$ -	$ 1,723,951	$ -
2.3.29 DIST W/M REPLACEMENT	WATERMAIN UPGRADES - 2016	2018 - 2018	$ 373,399	$ -	$ 373,399	0%	$ -	$ -	$ 373,399	$ -	$ -	$ 373,399	$ -
2.3.30 PW - INFRASTUCTURE STIMULUS FEDER	2899_SPADINA-WELLINGTON TRUNK WATERMAIN	2018 - 2018	$ 383,036	$ -	$ 383,036	0%	$ -	$ -	$ 383,036	$ -	$ -	$ 383,036	$ -
2.3.31 ENGINEERING	JOS UPDATE PHASE II	2018 - 2018	$ 389,511	$ -	$ 389,511	0%	$ -	$ -	$ 389,511	$ -	$ -	$ 389,511	$ -
	Subtotal Prior Projects		**$ 219,087,941**	**$ -**	**$ 219,087,941**		**$ -**	**$ -**	**$219,087,941**	**$0**	**$0**	**$219,087,941**	**$0**
2.4 Plant													
2.4.1 WTP - Plantwide	STANDBY POWER - PHASE 2 - ENG	2018 - 2024	$ 11,651,000	$ 3,499,059	$ 8,151,942	85%	$ 6,945,752	$ -	$ 1,206,190	$ -	$ -	$ 1,206,190	$ -
2.4.2 WTP - Plantwide	STANDBY POWER - PHASE 2 - CONSTRUCTION	2018 - 2024	$ 63,600,000	$ 19,100,516	$ 44,499,484	85%	$ 37,915,183	$ -	$ 6,584,300	$ -	$ -	$ 6,584,300	$ -
2.4.3 WTP - Plantwide	SCRUBBER AND TONNER CONNECTION IMPROVEMENTS AT WTP	2018 - 2023	$ 4,643,000	$ 1,396,462	$ 3,246,538	85%	$ 2,766,168	$ -	$ 480,369	$ -	$ -	$ 480,369	$ -
2.4.4 WTP - Plantwide	STANDBY POWER - FUTURE - ENG	2021 - 2041	$ 11,500,000	$ 3,450,000	$ 8,050,000	85%	$ 6,858,894	$ -	$ 1,191,106	$ -	$ -	$ 1,191,106	$ -
2.4.5 WTP - Plantwide	STANDBY POWER - FUTURE - CONSTRUCTION	2023 - 2041	$ 57,500,000	$ 17,250,000	$ 40,250,000	85%	$ 34,294,468	$ -	$ 5,955,532	$ -	$ -	$ 5,955,532	$ -
2.4.6 Clark	PROCESS EQUIPMENT UPGRADE ENGINEERING	2018 - 2022	$ 3,033,000	$ -	$ 3,033,000	85%	$ 2,584,227	$ -	$ 448,773	$ -	$ -	$ 448,773	$ -
2.4.7 Clark	PROCESS EQUIPMENT UPGRADE CONSTRUCTION	2018 - 2020	$ 26,155,565	$ -	$ 26,155,565	85%	$ 22,285,496	$ -	$ 3,870,070	$ -	$ -	$ 3,870,070	$ -
2.4.8 Horgan	PLANT EXPANSION - DESIGN & CONSTR ADMIN	2018 - 2018	$ 59,000	$ 18,880	$ 40,120	0%	$ -	$ -	$ 40,120	$ -	$ -	$ 40,120	$ -
2.4.9 Horgan	PLANT EXPANSION - CONSTRUCTION	2022 - 2022	$ 41,000	$ 13,325	$ 27,675	0%	$ -	$ -	$ 27,675	$ -	$ -	$ 27,675	$ -
2.4.10 Island	CHEMICAL & RESIDUALS MANAGEMENT CONST	2018 - 2022	$ 54,150,000	$ -	$ 54,150,000	85%	$ 46,137,775	$ -	$ 8,012,225	$ -	$ -	$ 8,012,225	$ -
2.4.11 Island	ISLAND FILTER AIR SCOUR SYSTEM	2018 - 2018	$ 5,000	$ -	$ 5,000	85%	$ 4,260.18	$ -	$ 740	$ -	$ -	$ 740	$ -
	Subtotal Plant		**$232,337,566**	**$44,728,242**	**$187,609,324**		**$159,792,223**	**$0**	**$27,817,101**	**$0**	**$0**	**$27,817,101**	**$0**

APPENDIX C.2
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
WATER SERVICES

Project Description			Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Prior Reserves	Available DC Reserves	In-Period Costs	Post-Period Costs
2.5 Storage and Pumping Stations														
2.5.1	WT - Storage & PS	CORROSION CONTROL	2018 - 2018	$ 20,000	$ -	$ 20,000	85%	$ 17,040.73	$ -	$ 2,959	$ -	$ -	$ 2,959	$ -
2.5.2	WT - Storage & PS	MILLIKEN P.S. & RESERVOIR EXT .- DESIGN AND CONT. ADMIN	2018 - 2018	$ 117,000	$ 44,379	$ 72,621	0%	$ -	$ -	$ 72,621	$ -	$ -	$ 72,621	$ -
2.5.3	WT - Storage & PS	DOWNSVIEW PS & CONNECTOR EA	2018 - 2019	$ 631,098	$ -	$ 631,098	0%	$ -	$ -	$ 631,098	$ -	$ -	$ 631,098	$ -
2.5.4	WT - Storage & PS	DOWNSVIEW PS - Construction	2021 - 2023	$ 12,000,000	$ -	$ 12,000,000	0%	$ -	$ -	$ 12,000,000	$ -	$ -	$ 12,000,000	$ -
2.5.5	WT - Storage & PS	WATER SUSTAINABILITY PROGRAM (STANDBY POWER - ELLESMERE)	2018 - 2020	$ 24,460,492	$ 7,362,317	$ 17,098,175	85%	$ 14,568,269	$ -	$ 2,529,906	$ -	$ -	$ 2,529,906	$ -
2.5.6	WT - Storage & PS	STANDBY POWER - ROSEHILL	2018 - 2022	$ 12,814,980	$ 3,844,407	$ 8,970,573	85%	$ 7,643,256	$ -	$ 1,327,318	$ -	$ -	$ 1,327,318	$ -
		Subtotal Storage and Pumping Stations		**$ 50,043,570**	**$ 11,251,103**	**$ 38,792,467**		**$ 22,228,565**	**0**	**$16,563,902**	**$0**	**$0**	**$16,563,902**	**$0**
2.6 Trunks														
2.6.1		DOWNSVIEW MAIN (KEELE PS TO DOWNSVIEW) Engineering	2018 - 2026	$ 6,580,000	$ -	$ 6,580,000	0%	$ -	$ -	$ 6,580,000	$ -	$ -	$ 6,580,000	$ -
2.6.2		DOWNSVIEW MAIN (KEELE PS TO DOWNSVIEW) Construction	2020 - 2024	$ 60,000,000	$ -	$ 60,000,000	0%	$ -	$ -	$ 60,000,000	$ -	$ -	$ 60,000,000	$ -
2.6.3		JOS - GERRARD ST WM - ENGINEERING	2018 - 2018	$ 20,000	$ 15,833	$ 4,167	0%	$ -	$ -	$ 4,167	$ -	$ -	$ 4,167	$ -
2.6.4		JOS - VICTORIA PARK W/M - ENGINEERING	2022 - 2027	$ 3,000,000	$ 520,000	$ 2,480,000	48%	$ 1,190,400	$ -	$ 1,289,600	$ -	$ -	$ 1,289,600	$ -
2.6.5		JOS - VICTORIA PARK W/M - CONST	2024 - 2027	$ 54,000,000	$ 9,370,000	$ 44,630,000	48%	$ 21,422,400	$ -	$ 23,207,600	$ -	$ -	$ 23,207,600	$ -
2.6.6		JOS - WM from Scar PS to St. Clair and Midland (ENG)	2018 - 2021	$ 2,595,968	$ 589,355	$ 2,006,613	48%	$ 963,174	$ -	$ 1,043,439	$ -	$ -	$ 1,043,439	$ -
2.6.7		JOS - WM from Scar PS to St. Clair and Midland (CONST)	2018 - 2021	$ 46,525,000	$ 10,569,385	$ 35,955,615	48%	$ 17,258,695	$ -	$ 18,696,920	$ -	$ -	$ 18,696,920	$ -
		Subtotal Trunks		**$ 172,720,968**	**$ 21,064,574**	**$ 151,656,394**		**$ 40,834,669**	**$ -**	**$ 110,821,725**	**$ -**	**$ -**	**$ 110,821,725**	**$ -**
2.7 Mains														
2.7.1		Site Wide Municipal Infrastructure - assumed 50:50 water and wastewater	2018 - 2022	$ 47,468,929	$ 29,478,671	$ 17,990,258	0%	$ -	$ -	$ 17,990,258	$ -	$ -	$ 17,990,258	$ -
2.7.2		Unilever Precinct Site Wide Servicing (water, sanitary and storm) - assumed 50:50 wate	2026 - 2035	$ 5,863,683	$ -	$ 5,863,683	0%	$ -	$ -	$ 5,863,683	$ -	$ -	$ 5,863,683	$ -
2.7.3		Watermain Upgrades (Eastern, Morse, Heward, Woodfield and Leslie)	2036 - 2041	$ 5,040,252	$ -	$ 5,040,252	0%	$ -	$ -	$ 5,040,252	$ -	$ -	$ 5,040,252	$ -
2.7.4		Commissioners Watermain Upgrade	2026 - 2035	$ 5,533,836	$ -	$ 5,533,836	0%	$ -	$ -	$ 5,533,836	$ -	$ -	$ 5,533,836	$ -
2.7.5		Carlaw Watermain Replacement	2026 - 2035	$ 1,069,432	$ -	$ 1,069,432	0%	$ -	$ -	$ 1,069,432	$ -	$ -	$ 1,069,432	$ -
2.7.6		McCleary District and Media City Site Wide Servicing - assumed 50:50 water and waste	2026 - 2035	$ 6,314,553	$ -	$ 6,314,553	0%	$ -	$ -	$ 6,314,553	$ -	$ -	$ 6,314,553	$ -
2.7.7		Turning Basin District Site wide Servicing - assumed 50:50 water and wastewater	Post -	$ 2,857,092	$ -	$ 2,857,092	0%	$ -	$ -	$ 2,857,092	$ -	$ -	$ -	$ 2,857,092
2.7.8		Caroline Sanitary Sewer and Watermain	2026 - 2035	$ 3,423,448	$ -	$ 3,423,448	0%	$ -	$ -	$ 3,423,448	$ -	$ -	$ 3,423,448	$ -
2.7.9		Leslie/Unwin Watermain	2026 - 2035	$ 9,828,966	$ -	$ 9,828,966	0%	$ -	$ -	$ 9,828,966	$ -	$ -	$ 9,828,966	$ -
2.7.10		Construct new watermain across the Ship Channel at Broadview (allowance)	2036 - 2041	$ 3,164,000	$ -	$ 3,164,000	0%	$ -	$ -	$ 3,164,000	$ -	$ -	$ 3,164,000	$ -
		Subtotal Mains		**$ 90,564,191**	**$ 29,478,671**	**$ 61,085,520**		**$ -**	**$ -**	**$ 61,085,520**	**$ -**	**$ -**	**$ 58,228,428**	**$ 2,857,092**
		SUBTOTAL WATER (2041) PROJECTS		**$ 764,754,236**	**$ 106,522,590**	**$ 658,231,646**		**$ 222,855,458**	**$ -**	**$ 435,376,188**	**$ -**	**$ -**	**$ 432,519,096**	**$ 2,857,092**
		SUBTOTAL WATER (2027) PROJECTS		**$ 1,370,338,499**	**$ 1,627,286**	**$ 1,368,711,213**		**$ 844,748,785**	**$ -**	**$ 523,962,428**	**$ -**	**$ -**	**$ 523,962,428**	**$ -**
		SUBTOTAL WATER (2041) PROJECTS		**$ 764,754,236**	**$ 106,522,590**	**$ 658,231,646**		**$ 222,855,458**	**$ -**	**$ 435,376,188**	**$ -**	**$ -**	**$ 432,519,096**	**$ 2,857,092**
		TOTAL ALL PROJECTS		**$ 2,135,092,735**	**$ 108,149,875**	**$ 2,026,942,859**		**$1,067,604,243**	**$ -**	**$ 959,338,616**	**$ -**	**$ -**	**$ 956,481,524**	**$ 2,857,092**

WATER 2018-2027		
Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$ 371,981,758.62
10-Year Growth in Population in New Permits Issued		252,390
Unadjusted Development Charge Per Capita		**$1,473.84**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$151,980,669
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$1,084.03**
WATER 2018-2041		
Residential Development Charge Calculation		
Residential Share of 2018 - 2041 DC Eligible Costs	72%	$41,686,688
23-Year Growth in Population in New Permits Issued		540,750
Unadjusted Development Charge Per Capita		**$77.09**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2041 DC Eligible Costs	28%	$16,541,739
23-Year Growth in Employees in New Space		293,000
Unadjusted Development Charge Per Employee		**$56.46**

APPENDIX C.2
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
WATER MANAGEMENT
RESIDENTIAL DEVELOPMENT CHARGE (2018-2027)
(in $000)

WATER 10-YEAR (RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.0	$12,432.5	$12,525.8	$3,847.8	($570.7)	($3,805.1)	$6,498.0	$13,034.4	$19,994.9	$24,849.1	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Water 10-Year (Residential): Non Inflated	$27,596.4	$37,585.7	$47,373.6	$41,156.3	$39,860.4	$27,623.0	$31,474.7	$31,415.6	$31,733.4	$56,162.6	**$371,981.8**
- Water 10-Year (Residential): Inflated	$27,596.4	$38,337.5	$49,287.5	$43,675.4	$43,146.2	$30,498.0	$35,445.7	$36,086.7	$37,180.8	$67,119.5	**$408,373.5**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$39,815.1	$38,004.8	$40,415.1	$39,244.1	$40,028.9	$40,829.5	$41,646.1	$42,479.0	$41,263.7	$42,089.0	**$405,815.4**
INTEREST											
- Interest on Opening Balance	$0.0	$435.1	$438.4	$134.7	($31.4)	($209.3)	$227.4	$456.2	$699.8	$869.7	**$3,020.7**
- Interest on In-year Transactions	$213.8	($9.1)	($244.0)	($121.9)	($85.7)	$180.8	$108.5	$111.9	$71.5	($688.3)	**($462.6)**
TOTAL REVENUE	$40,028.9	$38,430.8	$40,609.5	$39,256.9	$39,911.8	$40,801.1	$41,982.1	$43,047.1	$42,035.0	$42,270.4	**$408,373.5**
CLOSING CASH BALANCE	$12,432.5	$12,525.8	$3,847.8	($570.7)	($3,805.1)	$6,498.0	$13,034.4	$19,994.9	$24,849.1	$0.0	

2018 Adjusted Charge Per Capita	**$1,468.65**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.2
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
WATER MANAGEMENT
RESIDENTIAL DEVELOPMENT CHARGE (2017-2041)
(in $000)

WATER TO 2041 (RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPENING CASH BALANCE	$88,885.2	($66,182.6)	($67,627.7)	($77,448.3)	($90,128.8)	($99,938.7)	($106,105.2)	($114,050.7)	($111,482.1)	($112,048.7)	($111,898.8)	($106,271.6)	($101,899.4)
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS													
- Water To 2041 (Residential): Non Inflated	$167,576.2	$10,641.2	$19,006.3	$20,383.3	$17,023.9	$13,251.0	$14,483.7	$5,096.0	$7,389.3	$6,865.9	$2,558.4	$2,558.4	$2,558.4
- Water To 2041 (Residential): Inflated	$167,576.2	$10,854.0	$19,774.2	$21,630.9	$18,427.2	$14,630.2	$16,311.0	$5,853.7	$8,657.8	$8,205.4	$3,118.6	$3,181.0	$3,244.6
NEW RESIDENTIAL DEVELOPMENT													
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	23,980	21,150	21,150
REVENUE													
- DC Receipts: Inflated	$13,631.0	$13,011.2	$13,836.4	$13,435.5	$13,704.2	$13,978.3	$14,257.8	$14,543.0	$14,126.9	$14,409.5	$14,697.7	$13,222.4	$13,486.8
INTEREST													
- Interest on Opening Balance	$3,111.0	($3,640.0)	($3,719.5)	($4,259.7)	($4,957.1)	($5,496.6)	($5,835.8)	($6,272.8)	($6,131.5)	($6,162.7)	($6,154.4)	($5,844.9)	($5,604.5)
- Interest on In-year Transactions	($4,233.5)	$37.8	($163.3)	($225.4)	($129.9)	($17.9)	($56.5)	$152.1	$95.7	$108.6	$202.6	$175.7	$179.2
TOTAL REVENUE	$12,508.5	$9,408.9	$9,953.6	$8,950.5	$8,617.2	$8,463.7	$8,365.6	$8,422.3	$8,091.1	$8,355.4	$8,745.9	$7,553.2	$8,061.6
CLOSING CASH BALANCE	($66,182.6)	($67,627.7)	($77,448.3)	($90,128.8)	($99,938.7)	($106,105.2)	($114,050.7)	($111,482.1)	($112,048.7)	($111,898.8)	($106,271.6)	($101,899.4)	($97,082.5)

WATER TO 2041 (RESIDENTIAL)	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE	($97,082.5)	($91,792.1)	($85,998.3)	($79,668.9)	($72,770.2)	($65,266.4)	($55,209.7)	($44,326.9)	($32,567.1)	($19,876.6)	($6,198.5)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS												
- Water To 2041 (Residential): Non Inflated	$2,558.4	$2,558.4	$2,558.4	$2,558.4	$2,558.4	$1,243.9	$1,243.9	$1,243.9	$1,243.9	$1,243.9	$1,243.9	**$309,647.5**
- Water To 2041 (Residential): Inflated	$3,309.5	$3,375.7	$3,443.2	$3,512.1	$3,582.3	$1,776.6	$1,812.2	$1,848.4	$1,885.4	$1,923.1	$1,961.6	**$329,895.2**
NEW RESIDENTIAL DEVELOPMENT												
- Population Growth in New Permits Issued	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	10,580	**541,150**
REVENUE												
- DC Receipts: Inflated	$13,756.6	$14,031.7	$14,312.3	$14,598.6	$14,890.5	$15,188.4	$15,492.1	$15,802.0	$16,118.0	$16,440.4	$8,388.5	**$339,359.6**
INTEREST												
- Interest on Opening Balance	($5,339.5)	($5,048.6)	($4,729.9)	($4,381.8)	($4,002.4)	($3,589.7)	($3,036.5)	($2,438.0)	($1,791.2)	($1,093.2)	($340.9)	**($96,760.2)**
- Interest on In-year Transactions	$182.8	$186.5	$190.2	$194.0	$197.9	$234.7	$239.4	$244.2	$249.1	$254.1	$112.5	**($1,589.4)**
TOTAL REVENUE	$8,599.8	$9,169.6	$9,772.6	$10,410.8	$11,086.1	$11,833.4	$12,695.0	$13,608.2	$14,575.9	$15,601.2	$8,160.1	**$241,010.0**
CLOSING CASH BALANCE	($91,792.1)	($85,998.3)	($79,668.9)	($72,770.2)	($65,266.4)	($55,209.7)	($44,326.9)	($32,567.1)	($19,876.6)	($6,198.5)	$0.0	

2018 Adjusted Charge Per Capita	**$502.80**

Allocation of Capital Program	
Residential Sector	71.6%
Non-Residential Sector	28.4%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX C.2
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
WATER MANAGEMENT
NON-RESIDENTIAL DEVELOPMENT CHARGE (2018-2027)
(in $000)

WATER 10-YEAR (NON-RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.0	$3,988.8	$3,959.5	($349.2)	($2,134.8)	($3,465.1)	$736.1	$3,438.2	$6,316.6	$9,196.1	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Water 10-Year (Non-Residential): Non Inflated	$11,275.1	$15,356.4	$19,355.4	$16,815.2	$16,285.8	$11,285.9	$12,859.6	$12,835.5	$12,965.3	$22,946.4	**$151,980.7**
- Water 10-Year (Non-Residential): Inflated	$11,275.1	$15,663.5	$20,137.4	$17,844.5	$17,628.3	$12,460.6	$14,482.0	$14,743.9	$15,191.0	$27,423.0	**$166,849.2**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$15,195.3	$15,499.2	$15,809.2	$16,125.3	$16,447.8	$16,776.8	$17,112.3	$17,454.6	$17,803.7	$18,159.7	**$166,383.9**
INTEREST											
- Interest on Opening Balance	$0.0	$139.6	$138.6	($19.2)	($117.4)	($190.6)	$25.8	$120.3	$221.1	$321.9	**$640.0**
- Interest on In-year Transactions	$68.6	($4.5)	($119.0)	($47.3)	($32.5)	$75.5	$46.0	$47.4	$45.7	($254.7)	**($174.7)**
TOTAL REVENUE	$15,263.9	$15,634.3	$15,828.7	$16,058.9	$16,298.0	$16,661.8	$17,184.1	$17,622.4	$18,070.5	$18,226.9	**$166,849.2**
CLOSING CASH BALANCE	$3,988.8	$3,959.5	($349.2)	($2,134.8)	($3,465.1)	$736.1	$3,438.2	$6,316.6	$9,196.1	$0.0	

2018 Adjusted Charge Per Employee	**$1,083.83**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.2
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
WATER MANAGEMENT
NON-RESIDENTIAL DEVELOPMENT CHARGE (2018-2041)
(in $000)

WATER TO 2041 (NON-RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPENING CASH BALANCE	$22,221.3	($39,099.7)	($39,343.8)	($43,092.6)	($47,675.0)	($51,071.1)	($52,979.9)	($55,536.2)	($53,872.0)	($53,106.8)	($51,972.4)	($50,239.3)	($48,319.1)
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS													
- Water To 2041 (Non-Residential): Non Inflated	$66,496.1	$4,222.6	$7,541.9	$8,088.3	$6,755.3	$5,258.2	$5,747.3	$2,022.1	$2,932.2	$2,724.5	$1,015.2	$1,015.2	$1,015.2
- Water To 2041 (Non-Residential): Inflated	$66,496.1	$4,307.0	$7,846.6	$8,583.4	$7,312.1	$5,805.4	$6,472.4	$2,322.8	$3,435.5	$3,256.0	$1,237.5	$1,262.3	$1,287.5
NEW NON-RESIDENTIAL DEVELOPMENT													
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	10,914	10,914	10,914
REVENUE													
- DC Receipts: Inflated	$6,059.4	$6,180.6	$6,304.2	$6,430.3	$6,558.9	$6,690.0	$6,823.8	$6,960.3	$7,099.5	$7,241.5	$5,750.1	$5,865.1	$5,982.4
INTEREST													
- Interest on Opening Balance	$777.7	($2,150.5)	($2,163.9)	($2,370.1)	($2,622.1)	($2,808.9)	($2,913.9)	($3,054.5)	($2,963.0)	($2,920.9)	($2,858.5)	($2,763.2)	($2,657.5)
- Interest on In-year Transactions	($1,662.0)	$32.8	($42.4)	($59.2)	($20.7)	$15.5	$6.2	$81.2	$64.1	$69.7	$79.0	$80.6	$82.2
TOTAL REVENUE	$5,175.1	$4,062.9	$4,097.9	$4,001.0	$3,916.0	$3,896.6	$3,916.1	$3,987.0	$4,200.7	$4,390.4	$2,970.6	$3,182.5	$3,407.0
CLOSING CASH BALANCE	($39,099.7)	($39,343.8)	($43,092.6)	($47,675.0)	($51,071.1)	($52,979.9)	($55,536.2)	($53,872.0)	($53,106.8)	($51,972.4)	($50,239.3)	($48,319.1)	($46,199.5)

WATER TO 2041 (NON-RESIDENTIAL)	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE	($46,199.5)	($43,867.9)	($41,310.5)	($38,513.1)	($35,460.5)	($32,136.5)	($27,766.3)	($23,032.9)	($17,914.0)	($12,385.8)	($6,423.3)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS												
- Water To 2041 (Non-Residential): Non Inflated	$1,015.2	$1,015.2	$1,015.2	$1,015.2	$1,015.2	$493.6	$493.6	$493.6	$493.6	$493.6	$493.6	**$122,871.6**
- Water To 2041 (Non-Residential): Inflated	$1,313.3	$1,339.5	$1,366.3	$1,393.6	$1,421.5	$705.0	$719.1	$733.5	$748.1	$763.1	$778.4	**$130,906.1**
NEW NON-RESIDENTIAL DEVELOPMENT												
- Employees in New Space	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	**293,000**
REVENUE												
- DC Receipts: Inflated	$6,102.1	$6,224.1	$6,348.6	$6,475.6	$6,605.1	$6,737.2	$6,871.9	$7,009.4	$7,149.6	$7,292.6	$7,438.4	**$158,200.7**
INTEREST												
- Interest on Opening Balance	($2,541.0)	($2,412.7)	($2,272.1)	($2,118.2)	($1,950.3)	($1,767.5)	($1,527.1)	($1,266.8)	($985.3)	($681.2)	($353.3)	**($49,344.7)**
- Interest on In-year Transactions	$83.8	$85.5	$87.2	$88.9	$90.7	$105.6	$107.7	$109.8	$112.0	$114.3	$116.6	**($171.2)**
TOTAL REVENUE	$3,644.9	$3,896.9	$4,163.7	$4,446.3	$4,745.5	$5,075.2	$5,452.5	$5,852.4	$6,276.3	$6,725.6	$7,201.7	**$108,684.8**
CLOSING CASH BALANCE	($43,867.9)	($41,310.5)	($38,513.1)	($35,460.5)	($32,136.5)	($27,766.3)	($23,032.9)	($17,914.0)	($12,385.8)	($6,423.3)	$0.0	

2018 Adjusted Charge Per Employee	**$432.20**

Allocation of Capital Program	
Residential Sector	71.6%
Non-Residential Sector	28.4%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix C.3

Sanitary Sewer (Wastewater)

HEMSON

Appendix C.3

Sanitary Sewer (Wastewater) Services
Technical Appendix

Toronto Water is responsible for the emplacement and operation of the City's Sanitary Sewer plant and linear network. Toronto Water is also responsible for the City's Water and Storm Water Management facilities which are discussed in Appendix C.2 and C.4, respectively.

This appendix provides an outline of the development-related capital forecast for Sanitary Sewer, the calculation of the "unadjusted" DC and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by Toronto Water and Waterfront Toronto staff and were informed based on the current and proposed capital budget, previous DC studies, and other long-range planning documents.

Sanitary Sewer facilities included in the DC capital forecast are required to achieve health and safety standards as identified in relevant legislation including Provincial regulations, other relevant legislation as well as City standards. As such, in accordance with section 4(3) of O.Reg. 82/98, the ten-year historical service level does not apply.

The following discusses the individual components included in the Sanitary Sewer Service category. The analysis is set out in the tables which follow. The tables include:

Table 1	2018–2027 and 2018-2041 Development-Related Capital forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 2	Cash Flow Analysis

A. Development-Related Capital Forecast

The development-related capital forecast that will benefit development occurring over the 2018–2027 period includes a wide variety of projects for the provision of sanitary sewer services in the City and amounts to a total gross cost of $443.34 million, as shown in Table 1.

The projects that will benefit development occurring over the 2018-2041 planning period include projects for the provision of Sanitary Sewer services in the City and amounts to a total gross cost of $5,754.57 million. In total, the capital forecast for the 2018-2027 and 2018-2041 planning period equals $6,197.91 million.

Approximately $2,283.57 million of the $6,197.91 million in development-related infrastructure relates to plants. This includes improvements to the Ashbridges, Highland Creek and Humber facilities. The second largest component of the capital forecast relates to mains and pumping stations. Additionally, approximately $50.73 million of the capital forecast relates to projects that were identified in the City's last DC Study. These projects have been partially funded and carried forward into the 2018 DC Study in the 2018-2041 planning period.

B. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

Of the $54.03 million in grants, subsidies and other recoveries, $24.56 million is allocated within the 2018-2027 planning period and $29.45 million is allocated within the 2018-2041 period. This amount is netted off the DC calculation.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development. Generally speaking, shares have been deducted from the net

cost of projects that account for portions of the project that relate to state-of-good-repair or the replacement or reconstruction of existing facilities. Those projects that are completely new are deemed to be entirely growth-related and no replacement shares have been deducted from the net cost.

For the majority of infrastructure upgrades or replacements that were deemed to provide a benefit to the existing community, shares of current future population and employment growth over the 2018-2027 and 2018-2041 planning periods were used.

In total, $4,732.91 million is identified as the replacement and benefit to existing share over the 2018-2027 and 2018-2041 planning periods.

3. Legislated Ten per cent Reduction

As this service is identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs is not required.

4. Prior Reserves

Prior reserve funding relates to portions of projects which have had DCs collected and applied against a portion of the DC eligible project costs. These amounts are removed from the capital forecast and not brought forward into the development charge calculation.

In total, $15.52 million in prior growth shares relate to DCs collected prior to 2018 that have been applied against the External Sanitary Sewer (EBF) project.

5. Available DC Reserve Funds

As of December 31, 2016, the reserve fun balance for water is $87.74 million. This amount has been removed from the development charge calculation.

6. Post-2027 Benefit

There is no post-period benefit identified for the 2018-2027 planning period, however, $2.86 million is determined to be a post-period benefit for the 2018-2041 planning period.

7. 2018-2027 and 2018-2041 DC Eligible Development Related Costs

After the statutory deductions, the development charge eligible costs that are recovered in-period 2018-2027 is reduced to $130.01 million and in-period

2018-2041 is reduced to $1,262.58 million, for a total of $1,392.59 million in DC eligible costs.

C. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

The discounted development-related costs within the 2018-2027 planning period have been allocated 71 per cent to residential development and 29 per cent to non-residential development. For the 2018-2041 planning period, discounted development-related costs have been allocated 72 per cent to residential and 28 per cent to non-residential development. These percentages are based on shares of ten-year (2018-2027) and 23 year (2018-2041) shares of net population and employment growth.

The $92.29 million identified for 2018-2027 in residential development-related net capital costs is divided by the population forecast from new permits issued units of 252,400, yielding a per capita charge of $365.69 before cash flow adjustments. The non-residential unadjusted charge per employee is calculated by taking the $37.71 million allocated to the non-residential sector and dividing it by 140,200 employees. This yields an unadjusted charge of $268.97 per employee.

The $903.90 million identified for 2018-2041 in residential development-related net capital costs is divided by the population forecast from new permits issued units of 540,750, yielding a per capita charge of $1,671.57 before cash flow adjustments. The non-residential unadjusted charge per employee is calculated by taking the $358.68 million allocated to the non-residential sector and dividing it by 293,000 employees. This yields an unadjusted charge of $1,224.16 per employee.

D. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of DCs. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the DC rate that is required to

finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate DC rates reflecting borrowings and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 2 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee for the non-residential DCs. The 2018-2027 and 2018-2041 planning periods are cash flowed separately but combined to total the adjusted charge per capita and per employee. After cash flow consideration, the residential calculated charge increases to $2,121.34 per capita. The non-residential charge after cash flow increases to $1,608.00 per employee.

The following table summarizes the calculation of the Sanitary Sewer DC.

SANITARY SEWER SERVICES					
2018-2027 & 2018-2041		Unadjusted		**Adjusted**	
Development-Related Capital Program		Development Charge		**Development Charge**	
Total	Net DC Recoverable	$/capita	$/employee	**$/capita**	**$/employee**
$6,197,911,773	$1,392,586,608	$2,037.26	$1,493.13	**$2,121.34**	**$1,608.00**

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

Project Description		Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.0	**SANITARY SEWER (2027)**												
1.1	**Mains**												
1.1.1	NEW SEWERS	2018 - 2020	$ 603,000	$ -	$ 603,000	0%	$ -	$ -	$ 603,000	$ -	$ -	$ 603,000	$ -
1.1.2	WATERFRONT SANITARY MASTER SERVICING PLAN IMPLEMENTATION	2018 - 2022	$ 16,750,000	$ -	$ 16,750,000	50%	$ 8,375,000	$ -	$ 8,375,000	$ -	$ -	$ 8,375,000	$ -
1.1.3	WATERFRONT SANITARY MASTER SERVICING PLAN IMPLEMENTATION - FUTURE	2024 - 2027	$ 27,500,000	$ -	$ 27,500,000	50%	$ 13,750,000	$ -	$ 13,750,000	$ -	$ -	$ 13,750,000	$ -
1.1.4	DOWNSVIEW LANDS EXTERNAL UPGRADES	2018 - 2022	$ 9,450,000	$ -	$ 9,450,000	0%	$ -	$ -	$ 9,450,000	$ -	$ -	$ 9,450,000	$ -
1.1.5	SHEPPARD SANITARY SEWER AT EAST DON STS	2018 - 2020	$ 4,000,000	$ -	$ 4,000,000	38%	$ 1,511,200	$ -	$ 2,488,800	$ -	$ -	$ 2,488,800	$ -
1.1.6	NEW SEWERS - FUTURE	2021 - 2027	$ 7,000,000	$ -	$ 7,000,000	0%	$ -	$ -	$ 7,000,000	$ -	$ -	$ 7,000,000	$ -
1.1.7	GEORGETOWN SOUTH CITY INFRASTRUCTURE UPGRADES	2018 - 2019	$ 15,910,000	$ -	$ 15,910,000	0%	$ -	$ -	$ 15,910,000	$ -	$ -	$ 15,910,000	$ -
1.1.8	GEORGETOWN SOUTH CITY INFRASTRUCTURE UPGRADES - FUTURE	-	$ -	$ -	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1.1.9	2013 SEWER REPLC	2018 - 2019	$ 33,450	$ -	$ 33,450	92%	$ 30,879	$ -	$ 2,571	$ -	$ -	$ 2,571	$ -
1.1.10	EBF REPORT	2018 - 2019	$ -	$ -	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1.1.11	EBF REPORT	2018 - 2018	$ -	$ -	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1.1.12	SEWER REPLC - 2014 PROGRAM	2018 - 2019	$ 85,000	$ -	$ 85,000	92%	$ 78,468	$ -	$ 6,532	$ -	$ -	$ 6,532	$ -
1.1.13	SEWER REPLC - 2015 PROGRAM	2018 - 2019	$ 2,039,345	$ -	$ 2,039,345	92%	$ 1,882,626	$ -	$ 156,719	$ -	$ -	$ 156,719	$ -
1.1.14	SEWER REPLC - 2016 PROGRAM	2018 - 2019	$ 15,319,082	$ -	$ 15,319,082	92%	$ 14,141,844	$ -	$ 1,177,238	$ -	$ -	$ 1,177,238	$ -
1.1.15	SEWER REPLC - 2017 PROGRAM	2018 - 2020	$ 7,753,000	$ -	$ 7,753,000	92%	$ 7,157,199	$ -	$ 595,801	$ -	$ -	$ 595,801	$ -
1.1.16	SEWER REPLC - 2018 PROGRAM	2018 - 2020	$ 8,993,000	$ -	$ 8,993,000	92%	$ 8,301,908	$ -	$ 691,092	$ -	$ -	$ 691,092	$ -
1.1.17	CSP RENEWAL	2018 - 2022	$ 5,711,000	$ -	$ 5,711,000	92%	$ 5,272,122	$ -	$ 438,878	$ -	$ -	$ 438,878	$ -
1.1.18	SEWER REPLC - 2019 PROGRAM	2019 - 2021	$ 26,800,000	$ -	$ 26,800,000	92%	$ 24,740,479	$ -	$ 2,059,521	$ -	$ -	$ 2,059,521	$ -
1.1.19	10YR SEWER REPLACEMENT	2020 - 2027	$ 115,500,000	$ -	$ 115,500,000	92%	$ 106,624,080	$ -	$ 8,875,920	$ -	$ -	$ 8,875,920	$ -
1.1.20	UNALLOCATED PROJECTS	2018 - 2027	$ 40,000,000	$ -	$ 40,000,000	0%	$ -	$ -	$ 40,000,000	$ -	$ -	$ 40,000,000	$ -
1.1.21	External Sanitary Sewer (EBF)	2018 - 2021	$ 47,304,000	$ 24,557,243	$ 22,746,757	0%	$ -	$ -	$ 22,746,757	$ 15,520,000	$ -	$ 7,226,757	$ -
1.1.22	Queens Quay (Spadina to Bay)	2018 - 2021	$ 4,524,044	$ -	$ 4,524,044	23%	$ 1,017,910	$ -	$ 3,506,134	$ -		$ 3,506,134	$ -
	Subtotal Mains		**$ 355,274,921**	**$ 24,557,243**	**$ 330,717,678**		**$ 192,883,716**	**$ -**	**$ 137,833,962**	**$ 15,520,000.0**	**$ -**	**$ 122,313,962**	**$ -**
1.2	**Studies**												
1.2.1	SEWER ASSET PLANNING	2018 - 2023	$ 49,070,000	$ -	$ 49,070,000	92%	$ 45,299,079	$ -	$ 3,770,921	$ -	$ -	$ 3,770,921	$ -
1.2.2	SEWER ASSET PLANNING - 10 YEAR	2020 - 2027	$ 38,000,000	$ -	$ 38,000,000	92%	$ 35,079,784	$ -	$ 2,920,216	$ -	$ -	$ 2,920,216	$ -
1.2.3	Delivery of Growth-Related Capital Program	2018 - 2027	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ -	$ 1,000,000	$ -	$ -	$ 1,000,000	$ -
	Subtotal Studies		**$88,070,000**	**$0**	**$88,070,000**		**$80,378,863**	**$0**	**$7,691,137**	**$0**	**$0**	**$7,691,137**	**$0**
	SUBTOTAL PROJECTS TO 2027		**$443,344,921**	**$24,557,243**	**$418,787,678**		**$273,262,578**	**$0**	**$145,525,100**	**$15,520,000**	**$0**	**$130,005,100**	**$0**

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

Project Description		Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.0 SANITARY SEWER (2041)													
1.1 Prior Projects													
1.1.1 ASHBRIDGES BAY T.P. - IV -2000	STANDBY POWER GENERATION	2018 - 2018	$ 599,928	$ -	$ 599,928	0%	$ -	$ -	$ 599,928	$ -	$ -	$ 599,928	$ -
1.1.2 WW EQUIPMENT	DIG. TANKS # 1-12 MODS -2000	2018 - 2018	$ 1,834,384	$ -	$ 1,834,384	0%	$ -	$ -	$ 1,834,384	$ -	$ -	$ 1,834,384	$ -
1.1.3 ASHBRIDGES BAY T.P. YR2006	DEWATERING EQUIPMENT UPGRADES	2018 - 2018	$ 2,607,516	$ -	$ 2,607,516	0%	$ -	$ -	$ 2,607,516	$ -	$ -	$ 2,607,516	$ -
1.1.4 ASHBRIDGES BAY WWTP - LIQUID TREATMENT &	RAW SEWAGE PUMP STN REBUILD ENGINEERING	2018 - 2018	$ 1,127,375	$ -	$ 1,127,375	0%	$ -	$ -	$ 1,127,375	$ -	$ -	$ 1,127,375	$ -
1.1.5 ASHBRIDGES BAY WWTP - LIQUID TREATMENT &	FINE BUBBLE AERATION AND PILOT TESTING O	2018 - 2018	$ 228,554	$ -	$ 228,554	0%	$ -	$ -	$ 228,554	$ -	$ -	$ 228,554	$ -
1.1.6 ASHBRIDGES BAY WWTP - LIQUID TREATMENT &	PRIMARY AND FINAL TANK UPGRADES	2018 - 2018	$ 584,075	$ -	$ 584,075	0%	$ -	$ -	$ 584,075	$ -	$ -	$ 584,075	$ -
1.1.7 ASHBRIDGES BAY WWTP - ODOUR CONTROL	D BUILDING TREATMENT & BIOFILTER	2018 - 2018	$ 6,613,380	$ -	$ 6,613,380	0%	$ -	$ -	$ 6,613,380	$ -	$ -	$ 6,613,380	$ -
1.1.8 ASHBRIDGES BAY T.P. - IV -2000	PT ENGINEERING STUDY	2018 - 2018	$ 729,701	$ -	$ 729,701	0%	$ -	$ -	$ 729,701	$ -	$ -	$ 729,701	$ -
1.1.9 ASHBRIDGES BAY T.P. - IV -2000	ODOUR CTRL ENGINEERING	2018 - 2018	$ 710,857	$ -	$ 710,857	0%	$ -	$ -	$ 710,857	$ -	$ -	$ 710,857	$ -
1.1.10 ASHBRIDGES BAY TP	PCS-PLANT SRVS	2018 - 2018	$ 684,839	$ -	$ 684,839	0%	$ -	$ -	$ 684,839	$ -	$ -	$ 684,839	$ -
1.1.11 ASHBRIDGES BAY WWTP - LIQUID TREATMENT &	PRIMARY TREATMENT UPGRADE CONT #1	2018 - 2018	$ 3,847,083	$ -	$ 3,847,083	0%	$ -	$ -	$ 3,847,083	$ -	$ -	$ 3,847,083	$ -
1.1.12 ASHBRIDGES BAY WWTP - ODOUR CONTROL	BIOFILTERS UPGRADE	2018 - 2018	$ 338,877	$ -	$ 338,877	0%	$ -	$ -	$ 338,877	$ -	$ -	$ 338,877	$ -
1.1.13 ASHBRIDGES BAY WWTP - ODOUR CONTROL	M & T PUMPING STATION	2018 - 2018	$ 591,744	$ -	$ 591,744	0%	$ -	$ -	$ 591,744	$ -	$ -	$ 591,744	$ -
1.1.14 ASHBRIDGES BAY WWTP - ODOUR CONTROL	EMISSION AIR TREATMENT UPGRADE	2018 - 2018	$ 851,545	$ -	$ 851,545	0%	$ -	$ -	$ 851,545	$ -	$ -	$ 851,545	$ -
1.1.15 ODOUR CONTROL IMPLEMENTATION - PH 1 C	ODOUR CONTROL IMPLEMENTATION - PH 1 C	2018 - 2018	$ 941,245	$ -	$ 941,245	0%	$ -	$ -	$ 941,245	$ -	$ -	$ 941,245	$ -
1.1.16 HUMBER TP	PCS PLANT SERVICES	2018 - 2018	$ 399,924	$ -	$ 399,924	0%	$ -	$ -	$ 399,924	$ -	$ -	$ 399,924	$ -
1.1.17 REPLC FINAL TK RETURN HEADER	HEADHOUSE UPGRADES	2018 - 2018	$ 1,152,529	$ -	$ 1,152,529	0%	$ -	$ -	$ 1,152,529	$ -	$ -	$ 1,152,529	$ -
1.1.18 REPLC FINAL TK RETURN HEADER	ODOUR PHASE IV - NORTH PRIMARY CLARIFIER	2018 - 2018	$ 669,090	$ -	$ 669,090	0%	$ -	$ -	$ 669,090	$ -	$ -	$ 669,090	$ -
1.1.19 HUMBER WWTP - O&M UPGRADES	PROCESS EQUIPMENT UPGRADES	2018 - 2018	$ 784,234	$ -	$ 784,234	0%	$ -	$ -	$ 784,234	$ -	$ -	$ 784,234	$ -
1.1.20 SECONDARY TREATMENT UPGRADES	SECONDARY TREATMENT UPGRADES	2018 - 2018	$ 1,751,883	$ -	$ 1,751,883	0%	$ -	$ -	$ 1,751,883	$ -	$ -	$ 1,751,883	$ -
1.1.21 HTP 2	HTP II - WAS UPGRADE CONTRACT	2018 - 2018	$ 1,273,277	$ -	$ 1,273,277	0%	$ -	$ -	$ 1,273,277	$ -	$ -	$ 1,273,277	$ -
1.1.22 WW EQUIPMENT	EQUIP-HCTP-AUTOMATED CHAMBERS REHAB	2018 - 2018	$ 441,657	$ -	$ 441,657	0%	$ -	$ -	$ 441,657	$ -	$ -	$ 441,657	$ -
1.1.23 WAS THICKENING IMPROVEMENTS	WAS THICKENING IMPROVEMENTS	2018 - 2018	$ 336,981	$ -	$ 336,981	0%	$ -	$ -	$ 336,981	$ -	$ -	$ 336,981	$ -
1.1.24 ASHBRIDGES BAY WWTP - SOLIDS & GAS HANDL	WASTE ACTIVATED SLUDGE UPGRADE	2018 - 2018	$ 240,554	$ -	$ 240,554	0%	$ -	$ -	$ 240,554	$ -	$ -	$ 240,554	$ -
1.1.25 HIGHLAND CREEK TP	PCS PLANT SERVICES	2018 - 2018	$ 430,615	$ -	$ 430,615	0%	$ -	$ -	$ 430,615	$ -	$ -	$ 430,615	$ -
1.1.26 HIGHLAND CREEK TREATMENT PLANT V	BIOSOLIDS TREATMENT UPGRADES	2018 - 2018	$ 2,303,346	$ -	$ 2,303,346	0%	$ -	$ -	$ 2,303,346	$ -	$ -	$ 2,303,346	$ -
1.1.27 HIGHLAND CREEK WWTP - ODOUR CONTROL	ODOUR CONTROL UPGRADES PHASE 1 CONST	2018 - 2018	$ 2,028,372	$ -	$ 2,028,372	0%	$ -	$ -	$ 2,028,372	$ -	$ -	$ 2,028,372	$ -
1.1.28 WAS THICKENING AND DEWATERING CONSTR	WAS THICKENING AND DEWATERING CONSTR	2018 - 2018	$ 4,020,785	$ -	$ 4,020,785	0%	$ -	$ -	$ 4,020,785	$ -	$ -	$ 4,020,785	$ -
1.1.29 HIGHLAND CREEK WWTP - ODOUR CONTROL	ODOUR CONTROL UPGRADES - PHASE 1 ENG	2018 - 2018	$ 579,482	$ -	$ 579,482	0%	$ -	$ -	$ 579,482	$ -	$ -	$ 579,482	$ -
1.1.30 YR06 DIST SEWER REHAB OPS	GROUP 2 & 3 SEWAGE P.S. UPGRADES	2018 - 2018	$ 1,636,838	$ -	$ 1,636,838	0%	$ -	$ -	$ 1,636,838	$ -	$ -	$ 1,636,838	$ -
1.1.31 DIST SEWER NEW	DIST SEWER NEW	2018 - 2018	$ 800,526	$ -	$ 800,526	0%	$ -	$ -	$ 800,526	$ -	$ -	$ 800,526	$ -
1.1.32 SEWAGE PUMPING STATION UPGRADES	SPS UPGRADES	2018 - 2018	$ 267,597	$ -	$ 267,597	0%	$ -	$ -	$ 267,597	$ -	$ -	$ 267,597	$ -
1.1.33 YR05 DIST SEWER REHAB OPS	GROUP 1 SEWAGE P.S. UPGRADES	2018 - 2018	$ 353,802	$ -	$ 353,802	0%	$ -	$ -	$ 353,802	$ -	$ -	$ 353,802	$ -
1.1.34 DON & WATERFRONT TRUNK/CSO	DON & WATERFRONT TRUNK/CSO PHASE 1 - DES	2018 - 2018	$ 439,995	$ -	$ 439,995	0%	$ -	$ -	$ 439,995	$ -	$ -	$ 439,995	$ -
1.1.35 DIST SEWER REPLACEMENT	SEWER REPLACMENT - 2013 PROGRAM	2018 - 2018	$ 365,804	$ -	$ 365,804	0%	$ -	$ -	$ 365,804	$ -	$ -	$ 365,804	$ -
1.1.36 SEWAGE PUMPING STATION UPGRADES	SCOTT STREET PS UPGRADES	2018 - 2018	$ 238,900	$ -	$ 238,900	0%	$ -	$ -	$ 238,900	$ -	$ -	$ 238,900	$ -
1.1.37 SEWAGE PUMPING STATION UPGRADES	SUNNYSIDE AND MARYPORT SPS UPGRADES	2018 - 2018	$ 252,896	$ -	$ 252,896	0%	$ -	$ -	$ 252,896	$ -	$ -	$ 252,896	$ -
1.1.38 GEORGETOWN SOUTH CITY INFRASTRUCTURE UPG	GEORGETOWN SOUTH CITY INFRASTRUCTURE UPG	2018 - 2018	$ 7,672,523	$ -	$ 7,672,523	0%	$ -	$ -	$ 7,672,523	$ -	$ -	$ 7,672,523	$ -
	Subtotal Prior Projects		**$50,732,714**	**$0**	**$50,732,714**		**$0**	**$0**	**$50,732,714**	**$0**	**$0**	**$50,732,714**	**$0**

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

Project Description			Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.2	**Plant**													
1.2.1	ABTP	ABTP - DIG. TANKS #1-8 MODS.	2018 - 2018	$ 1,000	$ -	$ 1,000	85%	$ 852	$ -	$ 148	$ -	$ -	$ 148	$ -
1.2.2	ABTP	STANDBY POWER GENERATION	2018 - 2018	$ 20,000	$ -	$ 20,000	85%	$ 17,041	$ -	$ 2,959	$ -	$ -	$ 2,959	$ -
1.2.3	ABTP	P BLDG HEADWORKS - ENGINEERING DESIGN & CONTRACT ADMIN	2018 - 2021	$ 5,870,524	$ -	$ 5,870,524	85%	$ 5,001,901	$ -	$ 868,623	$ -	$ -	$ 868,623	$ -
1.2.4	ABTP	PROCESS UPGRADES & ODOUR CONTROL ENGINEERING	2018 - 2019	$ 273,000	$ -	$ 273,000	85%	$ 232,606	$ -	$ 40,394	$ -	$ -	$ 40,394	$ -
1.2.5	ABTP	FERROUS UPGRADES	2018 - 2020	$ 29,973,000	$ -	$ 29,973,000	85%	$ 25,538,089	$ -	$ 4,434,911	$ -	$ -	$ 4,434,911	$ -
1.2.6	ABTP	PCS-PLANT SRVS	2018 - 2018	$ 60,000	$ -	$ 60,000	85%	$ 51,122	$ -	$ 8,878	$ -	$ -	$ 8,878	$ -
1.2.7	ABTP	MISC MECH ENGINEERING	2018 - 2020	$ 1,691,132	$ -	$ 1,691,132	85%	$ 1,440,906	$ -	$ 250,226	$ -	$ -	$ 250,226	$ -
1.2.8	ABTP	MEDIATION AGREEMENT IMPLEMENTATION	2018 - 2018	$ 1,420	$ -	$ 1,420	85%	$ 1,210	$ -	$ 210	$ -	$ -	$ 210	$ -
1.2.9	ABTP	DEWATERING EQUIPMENT UPGRADES	2018 - 2019	$ 527,486	$ -	$ 527,486	85%	$ 449,437	$ -	$ 78,049	$ -	$ -	$ 78,049	$ -
1.2.10	ABTP	DISINFECTION ENGINEERING	2018 - 2024	$ 10,901,000	$ -	$ 10,901,000	85%	$ 9,288,050	$ -	$ 1,612,950	$ -	$ -	$ 1,612,950	$ -
1.2.11	ABTP	DISINFECTION SYSTEM CONSTRUCTION	2018 - 2022	$ 281,505,000	$ -	$ 281,505,000	85%	$ 239,852,528	$ -	$ 41,652,472	$ -	$ -	$ 41,652,472	$ -
1.2.12	ABTP	OUTFALL ASSESSMENT	2018 - 2019	$ 72,000	$ -	$ 72,000	85%	$ 61,347	$ -	$ 10,653	$ -	$ -	$ 10,653	$ -
1.2.13	ABTP	OUTFALL ENGINEERING	2018 - 2026	$ 31,337,000	$ -	$ 31,337,000	85%	$ 26,700,267	$ -	$ 4,636,733	$ -	$ -	$ 4,636,733	$ -
1.2.14	ABTP	OUTFALL - SITE PREP	2018 - 2018	$ 500,000	$ -	$ 500,000	85%	$ 426,018	$ -	$ 73,982	$ -	$ -	$ 73,982	$ -
1.2.15	ABTP	OUTFALL CONSTRUCTION	2018 - 2025	$ 327,000,000	$ -	$ 327,000,000	85%	$ 278,615,927	$ -	$ 48,384,073	$ -	$ -	$ 48,384,073	$ -
1.2.16	ABTP	FINE BUBBLE AERATION - TANK #2	2018 - 2019	$ 456,000	$ -	$ 456,000	85%	$ 388,529	$ -	$ 67,471	$ -	$ -	$ 67,471	$ -
1.2.17	ABTP	INTEGRATED PUMPING STATION (IPS) - ENGINEERING	2018 - 2027	$ 50,565,000	$ -	$ 50,565,000	85%	$ 43,083,224	$ -	$ 7,481,776	$ -	$ -	$ 7,481,776	$ -
1.2.18	ABTP	P BLDG HEADWORKS UPGRADE	2018 - 2019	$ 40,215,404	$ -	$ 40,215,404	85%	$ 34,264,991	$ -	$ 5,950,413	$ -	$ -	$ 5,950,413	$ -
1.2.19	ABTP	INTEGRATED PUMPING STATION (IPS) - CONSTRUCTION	2018 - 2026	$ 388,175,000	$ -	$ 388,175,000	85%	$ 330,739,259	$ -	$ 57,435,741	$ -	$ -	$ 57,435,741	$ -
1.2.20	ABTP	Primary and Final Tank Upgrades	2018 - 2018	$ 42,000	$ -	$ 42,000	85%	$ 35,786	$ -	$ 6,214	$ -	$ -	$ 6,214	$ -
1.2.21	ABTP	FINE BUBBLE AERATION - ENGINEERING	2018 - 2041	$ 18,750,000	$ -	$ 18,750,000	85%	$ 15,975,684	$ -	$ 2,774,316	$ -	$ -	$ 2,774,316	$ -
1.2.22	ABTP	FINE BUBBLE AERATION - CONTRUCTION	2025 - 2041	$ 75,000,000	$ -	$ 75,000,000	85%	$ 63,902,736	$ -	$ 11,097,264	$ -	$ -	$ 11,097,264	$ -
1.2.23	ABTP	AERATION TANK 12 & 13	2019 - 2027	$ 157,150,000	$ -	$ 157,150,000	0%	$ -	$ -	$ 157,150,000	$ -	$ -	$ 157,150,000	$ -
1.2.24	ABTP	ODOUR CONTROL - PRIMARY TANKS 7-9 UPGRADES	2024 - 2027	$ 61,100,000	$ -	$ 61,100,000	85%	$ 52,059,429	$ -	$ 9,040,571	$ -	$ -	$ 9,040,571	$ -
1.2.25	ABTP	D BUILDING TREATMENT & BIOFILTER	2018 - 2019	$ 1,539,686	$ -	$ 1,539,686	85%	$ 1,311,869	$ -	$ 227,817	$ -	$ -	$ 227,817	$ -
1.2.26	ABTP	BIOFILTERS UPGRADE & REPLACEMENT	2018 - 2021	$ 16,537,000	$ -	$ 16,537,000	85%	$ 14,090,127	$ -	$ 2,446,873	$ -	$ -	$ 2,446,873	$ -
1.2.27	ABTP	DIGESTERS 9-12 REFURBISH	2018 - 2023	$ 46,922,000	$ -	$ 46,922,000	85%	$ 39,979,256	$ -	$ 6,942,744	$ -	$ -	$ 6,942,744	$ -
1.2.28	ABTP	WASTE ACTIVATED SLUDGE UPGRADE - ENGINEERING	2018 - 2025	$ 13,266,299	$ -	$ 13,266,299	85%	$ 11,303,371	$ -	$ 1,962,928	$ -	$ -	$ 1,962,928	$ -
1.2.29	ABTP	WASTE ACTIVATED SLUDGE UPGRADE - CONSTRUCTION	2018 - 2023	$ 161,323,000	$ -	$ 161,323,000	85%	$ 137,453,080	$ -	$ 23,869,920	$ -	$ -	$ 23,869,920	$ -
1.2.30	HTP	PCS PLANT SERVICES	2018 - 2018	$ 6,000	$ -	$ 6,000	85%	$ 5,112	$ -	$ 888	$ -	$ -	$ 888	$ -
1.2.31	HTP	LIQUID STREAM UPGRADES	2018 - 2019	$ 477,264	$ -	$ 477,264	85%	$ 406,646	$ -	$ 70,618	$ -	$ -	$ 70,618	$ -
1.2.32	HTP	ODOUR CONTROL IMPLEMENTATION - PHASE 1	2018 - 2019	$ 13,212,000	$ -	$ 13,212,000	85%	$ 11,257,106	$ -	$ 1,954,894	$ -	$ -	$ 1,954,894	$ -
1.2.33	HTP	SECONDARY TREATMENT UPGRADES - SOUTH - ENGINEERING	2018 - 2027	$ 25,437,000	$ -	$ 25,437,000	85%	$ 21,673,252	$ -	$ 3,763,748	$ -	$ -	$ 3,763,748	$ -
1.2.34	HTP	SECONDARY TREATMENT UPGRADES - SOUTH - CONSTRUCTION	2018 - 2024	$ 164,120,000	$ -	$ 164,120,000	85%	$ 139,836,226	$ -	$ 24,283,774	$ -	$ -	$ 24,283,774	$ -
1.2.35	HTP	SECONDARY TREATMENT UPGRADES - NORTH PLANT	2021 - 2041	$ 135,500,000	$ -	$ 135,500,000	85%	$ 115,450,942	$ -	$ 20,049,058	$ -	$ -	$ 20,049,058	$ -
1.2.36	HCTP	WAS THICKENING AND DEWATERING - ENG	2018 - 2018	$ 40,595	$ -	$ 40,595	85%	$ 34,588	$ -	$ 6,007	$ -	$ -	$ 6,007	$ -
1.2.37	HCTP	BIOSOLIDS TREATMENT UPGRADES	2018 - 2020	$ 8,580,214	$ -	$ 8,580,214	85%	$ 7,310,655	$ -	$ 1,269,559	$ -	$ -	$ 1,269,559	$ -
1.2.38	HCTP	TRANSFORMERS AND SWITCHGEAR	2018 - 2021	$ 1,510,000	$ -	$ 1,510,000	85%	$ 1,286,575	$ -	$ 223,425	$ -	$ -	$ 223,425	$ -
1.2.39	HCTP	ODOUR CONTROL UPGRADES - PHASE 1 ENG	2018 - 2023	$ 2,322,672	$ -	$ 2,322,672	85%	$ 1,979,001	$ -	$ 343,671	$ -	$ -	$ 343,671	$ -
1.2.40	HCTP	ODOUR CONTROL UPGRADES - PHASE 1 CONSTR	2018 - 2020	$ 28,196,000	$ -	$ 28,196,000	85%	$ 24,024,020	$ -	$ 4,171,980	$ -	$ -	$ 4,171,980	$ -
1.2.41	HCTP	ODOUR CONTROL UPGRADES - PHASE 2	2023 - 2041	$ 35,100,000	$ -	$ 35,100,000	85%	$ 29,906,480	$ -	$ 5,193,520	$ -	$ -	$ 5,193,520	$ -
1.2.42	HCTP	WAS THICKENING - CONSTR	2018 - 2018	$ 545,000	$ -	$ 545,000	85%	$ 464,360	$ -	$ 80,640	$ -	$ -	$ 80,640	$ -
1.2.43	HCTP	BMP IMPLEMENTATION & ENHANCEMENTS - ENGINEERING	2018 - 2027	$ 18,750,000	$ -	$ 18,750,000	85%	$ 15,975,684	$ -	$ 2,774,316	$ -	$ -	$ 2,774,316	$ -
1.2.44	HCTP	BMP IMPLEMENTATION - CONSTRUCTION	2018 - 2026	$ 107,000,000	$ -	$ 107,000,000	85%	$ 91,167,903	$ -	$ 15,832,097	$ -	$ -	$ 15,832,097	$ -
1.2.45	HCTP	BMP IMPLEMENTATION ENHANCEMENTS - CONSTRUCTION	2023 - 2026	$ 22,000,000	$ -	$ 22,000,000	85%	$ 18,744,802	$ -	$ 3,255,198	$ -	$ -	$ 3,255,198	$ -
		Subtotal Plant		**$2,283,570,695**	**$0**	**$2,283,570,695**		**$1,811,787,995**	**$0**	**$471,782,701**	**$0**	**$0**	**$471,782,701**	**$0**

HEMSON

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

Project Description		Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.3	**Pumping Stations**												
1.3.1	GROUP 1 SEWAGE PUMPING STATION UPGRADES	2018 - 2020	$ 73,000	$ -	$ 73,000	85%	$ 62,199	$ -	$ 10,801	$ -	$ -	$ 10,801	$ -
1.3.2	GROUPS 2, 3 & 4 SEWAGE PUMPING STATION UPGRADES	2018 - 2018	$ 42,000	$ -	$ 42,000	85%	$ 35,786	$ -	$ 6,214	$ -	$ -	$ 6,214	$ -
1.3.3	SPS SCADA UPGRADES - ENGINEERING	2018 - 2019	$ 1,096,000	$ -	$ 1,096,000	85%	$ 933,832	$ -	$ 162,168	$ -	$ -	$ 162,168	$ -
1.3.4	SEWAGE PUMPING STATION STANDBY POWER	2018 - 2019	$ 135,003	$ -	$ 135,003	85%	$ 115,027	$ -	$ 19,976	$ -	$ -	$ 19,976	$ -
1.3.5	GROUP 5 SEWAGE PUMPING STATION UPGRADES	2018 - 2021	$ 18,773,000	$ -	$ 18,773,000	85%	$ 15,995,281	$ -	$ 2,777,719	$ -	$ -	$ 2,777,719	$ -
1.3.6	SUNNYSIDE SPS REHAB	2018 - 2018	$ 293,882	$ -	$ 293,882	85%	$ 250,398	$ -	$ 43,484	$ -	$ -	$ 43,484	$ -
1.3.7	SUNNYSIDE SPS - WETWELL	2020 - 2023	$ 2,500,000	$ -	$ 2,500,000	85%	$ 2,130,091	$ -	$ 369,909	$ -	$ -	$ 369,909	$ -
1.3.8	SPS UPGRADES	2018 - 2020	$ 7,042,000	$ -	$ 7,042,000	85%	$ 6,000,041	$ -	$ 1,041,959	$ -	$ -	$ 1,041,959	$ -
1.3.9	SPS UPGRADES - GROUP 6	2018 - 2024	$ 23,217,368	$ -	$ 23,217,368	85%	$ 19,782,044	$ -	$ 3,435,324	$ -	$ -	$ 3,435,324	$ -
1.3.10	SPS UPGRADES - GROUP 7	2020 - 2027	$ 14,700,000	$ -	$ 14,700,000	85%	$ 12,524,936	$ -	$ 2,175,064	$ -	$ -	$ 2,175,064	$ -
1.3.11	SCOTT ST PS & SIMCOE ST PS	2018 - 2024	$ 10,250,000	$ -	$ 10,250,000	50%	$ 5,125,000	$ -	$ 5,125,000	$ -	$ -	$ 5,125,000	$ -
1.3.12	SPS UPGRADES - GROUP 8	2022 - 2027	$ 23,350,000	$ -	$ 23,350,000	85%	$ 19,895,052	$ -	$ 3,454,948	$ -	$ -	$ 3,454,948	$ -
	Subtotal Pumping Stations		**$101,472,253**	**$0**	**$101,472,253**		**$82,849,687**	**$0**	**$18,622,566**	**$0**	**$0**	**$18,622,566**	**$0**
1.4	**Trunks**												
1.4.1	BLACK CREEK STS DESIGN & CONSTRUCTION	2019 - 2041	$ 363,000,000	$ -	$ 363,000,000	38%	$ 137,150,389	$ -	$ 225,849,611	$ -	$ -	$ 225,849,611	$ -
	Subtotal Trunks		**$363,000,000**	**$0**	**$363,000,000**		**$137,150,389**	**$0**	**$225,849,611**	**$0**	**$0**	**$225,849,611**	**$0**
1.5	**Mains**												
1.5.1	Site Wide Municipal Infrastructure - assumed 50:50 water and wastewater	2018 - 2022	$ 47,468,929	$ 29,478,671	$ 17,990,258	0%	$ -	$ -	$ 17,990,258	$ -	$ -	$ 17,990,258	$ -
1.5.2	Unilever Precinct Site Wide Servicing (water, sanitary and storm) - assumed 50:50 water and wastewa	2026 - 2035	$ 5,863,683	$ -	$ 5,863,683	0%	$ -	$ -	$ 5,863,683	$ -	$ -	$ 5,863,683	$ -
1.5.3	Caroline Sanitary Sewer (Eastern to Lake Shore)	2026 - 2035	$ 1,599,402	$ -	$ 1,599,402	0%	$ -	$ -	$ 1,599,402	$ -	$ -	$ 1,599,402	$ -
1.5.4	Commissioners Street Sanitary Sewer (Don Roadway to Carlaw Avenue)	2026 - 2035	$ 11,656,809	$ -	$ 11,656,809	0%	$ -	$ -	$ 11,656,809	$ -	$ -	$ 11,656,809	$ -
1.5.5	Carlaw Avenue Interconnecting Sewer (Commissioners to Eastern)	2026 - 2035	$ 10,942,694	$ -	$ 10,942,694	0%	$ -	$ -	$ 10,942,694	$ -	$ -	$ 10,942,694	$ -
1.5.6	McCleary District and Media City Site Wide Servicing - assumed 50:50 water and wastewater	2026 - 2035	$ 6,314,553	$ -	$ 6,314,553	0%	$ -	$ -	$ 6,314,553	$ -	$ -	$ 6,314,553	$ -
1.5.7	Turning Basin District Site wide Servicing - assumed 50:50 water and wastewater	Post -	$ 2,857,092	$ -	$ 2,857,092	0%	$ -	$ -	$ 2,857,092	$ -	$ -	$ -	$ 2,857,092
1.5.8	Leslie/Unwin Sanitary Sewer	2026 - 2035	$ 19,607,308	$ -	$ 19,607,308	0%	$ -	$ -	$ 19,607,308	$ -	$ -	$ 19,607,308	$ -
1.5.9	Commissioners Street Sanitary Sewer (included in the Film Studio District above)	2026 - 2035	$ -	$ -	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Subtotal Mains		**$106,310,470**	**$29,478,671**	**$76,831,799**		**$0**	**$0**	**$76,831,799**	**$0**	**$0**	**$73,974,707**	**$2,857,092**
1.6	**Wet Weather Flow & Flood Protection**												
1.6.1	NORTH TORONTO CSO CONSTR	2018 - 2020	$ 1,417,187	$ -	$ 1,417,187	85%	$ 1,207,495	$ -	$ 209,692	$ -	$ -	$ 209,692	$ -
1.6.2	Don & Waterfront Trunk/CSO Design - PH1- Coxwell & Lower Don	2018 - 2024	$ 42,451,832	$ -	$ 42,451,832	85%	$ 36,170,510	$ -	$ 6,281,323	$ -	$ -	$ 6,281,323	$ -
1.6.3	DCW - PHASE 1 - OFFLINE STORAGE TANK AT SHEPPARD/LESLIE	2018 - 2023	$ 17,236,000	$ -	$ 17,236,000	85%	$ 14,685,701	$ -	$ 2,550,299	$ -	$ -	$ 2,550,299	$ -
1.6.4	Don & Waterfront Trunk/CSO Construction - PHASE 1	2018 - 2024	$ 500,000,000	$ -	$ 500,000,000	85%	$ 426,018,238	$ -	$ 73,981,762	$ -	$ -	$ 73,981,762	$ -
1.6.5	DCW - PHASE 1 - ADDITIONAL SCOPE	2018 - 2019	$ 8,500,000	$ -	$ 8,500,000	85%	$ 7,242,310	$ -	$ 1,257,690	$ -	$ -	$ 1,257,690	$ -
1.6.6	DCW - MTI REGULATION/RTC	2019 - 2023	$ 14,800,000	$ -	$ 14,800,000	85%	$ 12,610,140	$ -	$ 2,189,860	$ -	$ -	$ 2,189,860	$ -
1.6.7	DCW - HRT	2020 - 2041	$ 316,000,000	$ -	$ 316,000,000	85%	$ 269,243,526	$ -	$ 46,756,474	$ -	$ -	$ 46,756,474	$ -
1.6.8	DCW - COXWELL CONNECTIONS	2023 - 2041	$ 89,500,000	$ -	$ 89,500,000	85%	$ 76,257,265	$ -	$ 13,242,735	$ -	$ -	$ 13,242,735	$ -
1.6.9	Don & Waterfront Trunk/CSO Construction - PHASE 2	2025 - 2041	$ 210,000,000	$ -	$ 210,000,000	85%	$ 178,927,660	$ -	$ 31,072,340	$ -	$ -	$ 31,072,340	$ -
	Wet Weather Flow & Flood Protection		**$1,199,905,019**	**$0**	**$1,199,905,019**		**$1,022,362,844**	**$0**	**$177,542,176**	**$0**	**$0**	**$177,542,176**	**$0**

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.7	**PRIORITY LINEAR SANITARY CAPACITY PROJECTS**												
1.7.1	EGLINTON AVENUE EAST from BRENTCLIFFE RD - 104m West of to BRENTCLIFFE RD												
1.7.2	EGLINTON AVENUE EAST from BRENTCLIFFE RD - 209m West of to BRENTCLIFFE RD - 104m West of												
1.7.3	EGLINTON AVENUE EAST from LAIRD RD to LAIRD RD - 96m East of												
1.7.4	EGLINTON AVENUE EAST from LAIRD RD - 96m East of to BRENTCLIFFE RD - 209m West of												
1.7.5	BRENTCLIFFE ROAD from BRENTCLIFFE to BRENTCLIFFE												
1.7.6	EGLINTON AVENUE EAST from BRENTCLIFFE to BRENTCLIFFE - 28m East of	2022 - 2024	$2,450,000	$ -	$ 2,450,000	85%	$ 2,087,489.36	$0	$ 362,511	$ -	$ -	$ 362,511	$ -
1.7.7	BESSBOROUGH DRIVE from 11m North of DONLEA to DONLEA												
1.7.8	BESSBOROUGH DRIVE from CRAIG CRES to CRAIG CRES - 73m South of												
1.7.9	DONLEA DRIVE from BESSBOROUGH - 96m North of to BESSBOROUGH - 121m North of												
1.7.10	BESSBOROUGH DRIVE from BROADWAY AVE to CRAIG CRES - 79m North of												
1.7.11	BESSBOROUGH DRIVE from 79m North of CRAIG CRES to CRAIG CRES												
1.7.12	CRAIG CRESCENT from BAYVIEW AVE to BESSBOROUGH DR												
1.7.13	DONLEA DRIVE from BESSBOROUGH DR to BESSBOROUGH - 23m North of												
1.7.14	BESSBOROUGH DRIVE from 77m North of DONLEA to DONLEA - 11m North of												
1.7.15	RUMSEY ROAD from EGLINTON AVE E to EGLINTON AVE E - 22m South of												
1.7.16	DONLEA DRIVE from BESSBOROUGH - 23m North of to BESSBOROUGH - 96m North of												
1.7.17	DONLEA DRIVE from BESSBOROUGH - 121m North of to HANNA RD	2019 - 2020	$5,403,125	$ -	$ 5,403,125	85%	$ 4,603,660	$0	$ 799,465	$ -	$ -	$ 799,465	$ -
1.7.18	VANDERHOOF AVENUE from SUTHERLAND DR - 104m East of to SUTHERLAND DR												
1.7.19	FLEMING CRESCENT from PARKHURST BLVD - 66m North of to PARKHURST BLVD												
1.7.20	FLEMING CRESCENT from PARKHURST BLVD - 199m North of to PARKHURST BLVD - 133m North of												
1.7.21	FLEMING CRESCENT from PARKHURST BLVD - 6m South of to PARKHURST BLVD												
1.7.22	MACNAUGHTON ROAD from PARKHURST BLVD - 90m South of to PARKHURST BLVD												
1.7.23	FLEMING CRESCENT from PARKHURST BLVD - 133m North of to PARKHURST BLVD - 66m North of												
1.7.24	FLEMING CRESCENT from PARKHURST BLVD - 96m South of to PARKHURST BLVD - 6m South of												
1.7.25	HANNA ROAD from PARKLEA DR - 59m South of to PARKLEA DR												
1.7.26	VANDERHOOF AVENUE from LAIRD DR to SUTHERLAND DR - 104m East of												
1.7.27	SUTHERLAND DRIVE from PARKHURST BLVD - 108m South of to PARKHURST BLVD	2019 - 2020	$2,016,903	$ -	$ 2,016,903	85%	$ 1,718,474	$0	$ 298,428	$ -	$ -	$ 298,428	$ -
1.7.28	MARKHAM AVENUE from SUTHERLAND DR - 46m East of to RANDOLPH RD												
1.7.29	SUTHERLAND DRIVE from LEA AVE to LEA AVE - 84m North of												
1.7.30	SUTHERLAND DRIVE from LEA AVE - 84m North of to MARKHAM AVE												
1.7.31	MARKHAM AVENUE from SUTHERLAND DR to RANDOLPH RD												
1.7.32	MARKHAM AVENUE from RANDOLPH RD - 55m East of to RANDOLPH RD												
1.7.33	MARKHAM AVENUE from SUTHERLAND DR to SUTHERLAND DR - 46m East of	2019 - 2020	$1,989,563	$ -	$ 1,989,563	85%	$ 1,695,180	$0	$ 294,383	$ -	$ -	$ 294,383	$ -
1.7.34	ESANDAR DRIVE from LAIRD DR - 210m East of to LAIRD DR - 304m East of												
1.7.35	ESANDAR DRIVE from LAIRD DR - 140m East of to LAIRD DR - 210m East of												
1.7.36	ESANDAR DRIVE from LAIRD DR - 304m East of to LAIRD DR - 356m East of	2018 - 2027	$1,028,025	$ -	$ 1,028,025	85%	$ 875,915	$0	$ 152,110	$ -	$ -	$ 152,110	$ -
1.7.37	MCRAE DRIVE from FIELD AVE to MILLWOOD RD	2019 - 2020	$744,188	$ -	$ 744,188	85%	$ 634,075	$0	$ 110,113	$ -	$ -	$ 110,113	$ -
1.7.38	HANNA ROAD from ROLPH RD to HANNA ROAD												
1.7.39	RUMSEY ROAD from RUMSEY RD to MCRAE DR	2019 - 2020	$706,220	$ -	$ 706,220	85%	$ 601,725	$0	$ 104,495	$ -	$ -	$ 104,495	$ -
1.7.40	MOORE AVENUE from BESSBOROUGH DR to POTTERY RD - 19m East of												
1.7.41	MOORE AVENUE from SOUTHLEA AVE to BESSBOROUGH DR												
1.7.42	BESSBOROUGH DRIVE from SUTHERLAND DR to MOORE AVE - 153m North of												
1.7.43	SOUTHLEA AVENUE from MOORE AVE - 81m North of to MOORE AVE												
1.7.44	SOUTHLEA AVENUE from SUTHERLAND DR to MOORE AVE - 156m North of												
1.7.45	MOORE AVENUE from MALLORY CRES to SOUTHLEA AVE												
1.7.46	BESSBOROUGH DRIVE from MOORE AVE - 153m North of to MOORE AVE - 78m North of												
1.7.47	ASTOR AVENUE from SOUTHVALE DR - 82m North of to SOUTHVALE DR												
1.7.48	MOORE AVENUE from ASTOR AVE to MALLORY CRES												
1.7.49	ASTOR AVENUE from SOUTHVALE DR - 161m North of to SOUTHVALE DR - 82m North of												
1.7.50	SOUTHLEA AVENUE from MOORE AVE - 156m North of to MOORE AVE - 81m North of												
1.7.51	BESSBOROUGH DRIVE from MOORE AVE - 78m North of to MOORE AVE	2018 - 2027	$10,574,213	$ -	$ 10,574,213	85%	$ 9,009,615	$0	$ 1,564,598	$ -	$ -	$ 1,564,598	$ -
1.7.52	BURNHAM ROAD from BRENDAN RD to BRENDAN RD - 88m East of												
1.7.53	BENNINGTON HEIGHTS DRIVE from HEATH ST E to HEATH ST E - 45m South of												
1.7.54	LUMLEY AVENUE from BURNHAM RD to HEATH ST E												
1.7.55	HEATH STREET EAST from LUMLEY AVE to BENNINGTON HEIGHTS DR												
1.7.56	BURNHAM ROAD from LUMLEY AVE - 87m West of to LUMLEY AVE												
1.7.57	BENNINGTON HEIGHTS DRIVE from NOEL AVE - 45m North of to NOEL AVE	2018 - 2027	$6,119,283	$ -	$ 6,119,283	85%	$ 5,213,852	$0	$ 905,431	$ -	$ -	$ 905,431	$ -

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

Project Description		Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.7	**PRIORITY LINEAR SANITARY CAPACITY PROJECTS CONTINUED**												
1.7.58	EASEMENT KEERSDALE PARK from WESTBURY CRES to BLACK CREEK												
1.7.59	WESTMOUNT AVE from GENESSEE AVE to MARTIN ST												
1.7.60	FAIRBANK PARK from EASEMENT FAIRBANK PARK to EASEMENT BERT ROBINSON PARK												
1.7.61	EASEMENT FAIRBANK PARK from NORTHCLIFFE BLVD to EASEMENT FAIRBANK PARK												
1.7.62	NASHVILLE AVE from KEELE ST to BICKNELL AVE - BLACK CREEK												
1.7.63	2m South of KEITH AVE, 18M WEST OF GILBERT AVE from 36m South of KEITH AVE to GILBERT AVE												
1.7.64	DUNRAVEN DR & CNR EASEMENT from 20m West of GILBERT AVE to KEELE ST												
1.7.65	2m South of KEITH AVE, 18M WEST OF GILBERT AVE from 36m South of KEITH AVE to GILBERT AVE												
1.7.66	AILEEN AVE from KANE AVE to KEELE ST												
1.7.67	ALLENVALE AVE from GLENHOLME AVE to NORTHCLIFFE BLVD												
1.7.68	BICKNELL AVE from NASHVILLE AVE to WESTBURY CRES - BLACK CREEK												
1.7.69	BLACKTHORN AVE from 150m South of KENORA CRES to ROGERS RD												
1.7.70	BLACKTHORN AVE from 50m North of HELEN AVE to ROGERS RD												
1.7.71	BLANDFORD ST from 61m North of ROGERS RD to HANSON RD												
1.7.72	BOWIE AVE from FAIRBANK AVE to CROHAM RD												
1.7.73	BRANSTONE RD from 37m North of THORNTON AVE to ENNERDALE RD												
1.7.74	CALEDONIA RD from 106m South of BOWIE AVE to EGLINTON AVE												
1.7.75	CHAMBERLAIN AVE from 54m South of SCHELL AVE to BOWIE AVE												
1.7.76	CHUDLEIGH RD from ENNERDALE RD to HARVIE AVE												
1.7.77	COMMODORE AVE from 58m West of HAVERSON BLVD to SILVERTHORN AVE												
1.7.78	CROHAM RD from BOWIE AVE to EGLINTON AVE WEST												
1.7.79	DUFFERIN ST from HUNTER AVE to KEYWEST AVE												
1.7.80	DUNRAVEN DR & CNR EASEMENT from 20m West of GILBERT AVE to KEELE ST												
1.7.81	DUNRAVEN DR from 20m West of GILBERT AVE to KEELE ST												
1.7.82	DUNRAVEN DR from 26m West of SILVERTHORN AVE to KEELE ST												
1.7.83	DUNRAVEN DR from BLACKTHORN AVE to SILVERTHORN AVE												
1.7.84	DYNEVOR RD from EASEMENT FAIRBANK PARK to EASEMENT BERT ROBINSON PARK												
1.7.85	DYNEVOR RD from ENNERDALE RD to KIRKNEWTON RD												
1.7.86	EASEMENT FAIRBANK PARK from 7m South of KEYWEST AVE to EASEMENT FAIRBANK PARK												
1.7.87	EASEMENT FAIRBANK PARK from NORTHCLIFFE BLVD to EASEMENT FAIRBANK PARK												
1.7.88	EASEMENT KEERSDALE PARK from WESTBURY CRES to BLACK CREEK												
1.7.89	EGLINTON AVE W from LITTLE BLVD to GILBERT AVE												
1.7.90	ENNERDALE RD from BRANSTONE RD to HARLOW AVE												
1.7.91	ENNERDALE RD from HOLMESDALE RD to CHUDLEIGH RD												
1.7.92	FAIRBANK AVE from 73m South of SCHELL AVE to BOWIE AVE												
1.7.93	FAIRBANK PARK from EASEMENT FAIRBANK PARK to EASEMENT BERT ROBINSON PARK												
1.7.94	GENESSEE AVE from GLENHOLME AVE to WESTMOUNT AVE												
1.7.95	GILBERT AVE from 17m South of EGLINTON AVE W to KITCHENER AVE												
1.7.96	GILBERT AVE from 97m South of KEITH AVE to KITCHENER AVE												
1.7.97	GLENHOLME AVE from HANSON RD to GENESSEE AVE												
1.7.98	GLENHOLME AVE from VAUGHAN RD to ALLENVALE AVE												
1.7.99	HANSON RD from OAKWOOD AVE to GLENHOLME AVE												
1.7.100	HARLOW AVE from ENNERDALE RD to KIRKNEWTON RD												
1.7.101	HARVIE AVE from CHUDLEIGH RD to KITCHENER AVE												
1.7.102	HAVERSON BLVD from 5m North of DUNRAVEN DR to DUNRAVEN DR												
1.7.103	HOLMESDALE RD from DHIR MEWS to ENNERDALE RD												
1.7.104	KANE AVE from KERSDALE AVE to DUNRAVEN DR												
1.7.105	KEELE ST from 45m North of ROGERS RD to DUNRAVEN DR												
1.7.106	KERSDALE AVE from KANE AVE to SCOTT RD												
1.7.107	KEYWEST AVE from EASEMENT FARIBANK PARK to 11m East of DUFFERIN ST												
1.7.108	KIRKNEWTON RD from EGLINTON AVE W to DYNEVOR RD												
1.7.109	KITCHENER AVE from EASEMENT FAIRBANK PARK to EASEMENT BERT ROBINSON PARK												
1.7.110	KITCHENER AVE from GILBERT AVE to EASEMENT 20m West of GILBERT AVE IN PARK												
1.7.111	KITCHENER AVE from MCROBERTS AVE to GILBERT AVE												
1.7.112	LITTLE BLVD from 44m South of SCHELL AVE to BOWIE AVE												
1.7.113	MARTIN ST from WESTMOUNT AVE to DUFFERIN ST												
1.7.114	MCROBERTS AVE from 100m North of SUMMIT AVE to KITCHENER AVE												
1.7.115	NASHVILLE AVE from KEELE ST to BICKNELL AVE - BLACK CREEK												
1.7.116	NORTHCLIFFE BLVD from 186m North of ROGERS RD to GENESSEE AVE												
1.7.117	NORTHCLIFFE BLVD from 34m South of KEYWEST AVE to 70m South of ALLENVALE												
1.7.118	OAKWOOD AVE from AMHERST AVE to HANSON RD												
1.7.119	REGENT ST from 60m North of ROGERS RD to AILEEN AVE												
1.7.120	ROGERS RD from 57m East of BLACKTHORN AVE to SILVERTHORN AVE												
1.7.121	ROGERS RD from BLACKTHORN AVE to SILVERTHORN AVE												
1.7.122	SCOTT RD from KERSDALE AVE to AILEEN AVE												
1.7.123	SILVERTHORN AVE from CAMERON AVE to DUNRAVEN DR												
1.7.124	SILVERTHORN AVE from ROGERS RD to DUNRAVEN DR												
1.7.125	SNIDER AVE from 149m South of BOWIE AVE to EGLINTON AVE												
1.7.126	WESTBURY CRES from BICKNELL AVE to ROTHERHAM AVE - BLACK CREEK												
1.7.127	WESTMOUNT AVE from GENESSEE AVE to MARTIN ST	2020 - 2024	$ 392,500,000	$ -	$ 392,500,000	85%	$ 334,424,317	$0	$ 58,075,683	$ -	$ -	$ 58,075,683	$ -
1.7.128	HUMBERCREST BLVD from #255 HUMBERCREST BLVD to ST JOHNS RD - 154m North of	2018 - 2018	$707,500	$ -	$ 707,500	85%	$ 602,816	$0	$ 104,684	$ -	$ -	$ 104,684	$ -
1.7.129	WATSON AVENUE from BRADLEY AVENUE to ST JOHNS RD - 107m North of												
1.7.130	WATSON AVENUE from DUNDAS ST W to BRADLEY AVENUE	2018 - 2018	$792,500	$ -	$ 792,500	85%	$ 675,239	$0	$ 117,261	$ -	$ -	$ 117,261	$ -
1.7.131	DURIE STREET from #710 DURIE ST to 13m North of ST JOHNS RD	2018 - 2018	$527,500	$ -	$ 527,500	85%	$ 449,449	$0	$ 78,051	$ -	$ -	$ 78,051	$ -

HEMSON

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.7	**PRIORITY LINEAR SANITARY CAPACITY PROJECTS CONTINUED**												
1.7.132	ALLIANCE AVE from 31m West of CLIFF ST to JANE ST 65M WEST TO BLACK CREEK												
1.7.133	CORDELLA AVENUE from #88-90 CORDELLA AVE to #90-92 CORDELLA AVE												
1.7.134	ALLIANCE AVE from 31m West of ALLIANCE AVE to SE OF CLIFF ST AND ALLIANCE AVE												
1.7.135	CORDELLA AVENUE from #70-72 CORDELLA AVE to #88-90 CORDELLA AVE												
1.7.136	CORDELLA AVENUE from #90-92 CORDELLA AVE to CLIFF ST												
1.7.137	ALLIANCE AVE from 14m East of ALLIANCE AVE to CLIFF ST 8m South of ALLAINCE AVE												
1.7.138	CLIFF ST from LANGDEN AVE to CORDELLA AVE - 65m North of												
1.7.139	CLIFF ST from CORDELLA AVE - 65m North of to CORDELLA AVE												
1.7.140	CORDELLA AVENUE from CLIFF ST NORTH OF CORDELLA AVE to CLIFF ST SOUTH OF CORDELLA AVE												
1.7.141	CLIFF ST from CORDELLA AVE to ALLIANCE AVE - 53m North of												
1.7.142	CLIFF ST from 53m North of ALLIANCE AVE to BLACK CREEK OUTFALL												
1.7.143	ALLIANCE AVE from CLIFF STREET to ROCKCLIFFE BOULEVARD - 55m West of												
1.7.144	ALLIANCE AVE from ALLIANCE AVE to ALLIANCE AVE												
1.7.145	CLIFF ST from ALLIANCE AVE to 39M SE OF CLIFF ST & ALLIANCE AVE	2018 - 2027	$50,270,000	$ -	$ 50,270,000	85%	$ 42,831,874	$0	$ 7,438,126	$ -	$ -	$ 7,438,126	$ -
1.7.146	HENRIETTA STREET from RUNNYMEDE RD to CASTLETON A VE												
1.7.147	RUNNYMEDE RD from LIVERPOOL ST to HERIETTA ST												
1.7.148	HENRIETTA STREET from NORVAL ST to RUNNYMEDE RD												
1.7.149	BLAKELEY AVE from #25 BLAKLEY AVE to HENRIETTA ST												
1.7.150	HENRIETTA STREET from BLAKLEY AVE to RAVENAL ST												
1.7.151	CASTLETON AVE from HENRIETTA ST to 26M NE OF WOOLNER AVE & ROCKCLIFFE BLVD												
1.7.152	BLAKELEY AVE from DEAD END BLAKLEY AVE to #25 BLAKLEY AVE												
1.7.153	CASTLETON AVE from ST CLAIR AVE W to HENRIETTA ST												
1.7.154	HENRIETTA STREET from CRISCOE ST to NORVAL ST												
1.7.155	RUNNYMEDE RD from HENRIETTA ST - 166m North of to HENRIETTA ST - 91m North of												
1.7.156	ST CLAIR AVENUE WEST from 15m East of JANE ST to 13m West of BATAVIA AVE												
1.7.157	HENRIETTA STREET from RAVENAL ST to CRISOE ST												
1.7.158	ST CLAIR AVENUE WEST from 13m West of BATAVIA AVE to 5m East of CASTLETON AVE	2018 - 2027	$14,830,000	$ -	$ 14,830,000	85%	$ 12,635,701	$0	$ 2,194,299	$ -	$ -	$ 2,194,299	$ -
1.7.159	CRIPPS AVE from SPEARS ST to 40m West of HILLDALE RD TO BLACK CREEK												
1.7.160	AVON AVE from FELTHAM AVE to 13m South of NORTHLAND AVE												
1.7.161	CAYUGA AVE from #81-83 CAYUGA AVE to SPEARS ST												
1.7.162	AVON AVE from 24m South of AVON CRES to 18m North of CAYUGA AVE												
1.7.163	SPEARS STREET from CAYUGA AVE to CRIPPS AVE												
1.7.164	AVON AVE from 13m South of NORTHDALE AVE to 18m North of CAYUGA AVE												
1.7.165	CAYUGA AVE from AVON AVE to #81-83 CAYUGA AVE	2018 - 2027	$4,092,500	$ -	$ 4,092,500	85%	$ 3,486,959	$0	$ 605,541	$ -	$ -	$ 605,541	$ -
1.7.166	HILLDALE ROAD from 14m North of ORMAN AVE to CRIPPS AVE												
1.7.167	HILLDALE ROAD from CRIPPS AVE to NEAST OF HUMBER BLVD & CRIPPS AVE	2019 - 2020	$5,177,500	$ -	$ 5,177,500	85%	$ 4,411,419	$0	$ 766,081	$ -	$ -	$ 766,081	$ -
1.7.168	WESTON ROAD from LIPPINCOTT ST to CLOUSTON AVE	2018 - 2018	$475,000	$ -	$ 475,000	85%	$ 404,717	$0	$ 70,283	$ -	$ -	$ 70,283	$ -
1.7.169	SYKES AVENUE from 178m North of DENISON RD W to DENISON RD W - 23m North of												
1.7.170	SYKES AVENUE from 23m North of DENISON RD W to DENISON RD W	2018 - 2018	$412,500	$ -	$ 412,500	85%	$ 351,465	$0	$ 61,035	$ -	$ -	$ 61,035	$ -
1.7.171	BOYD AVE from 82m East of RALPH ST to PINE ST												
1.7.172	PINE ST from CHURCH ST to KING ST												
1.7.173	QUEEN'S DR from ROSEMOUNT AVE to 123 m East of ROSEMOUNT AVE												
1.7.174	PINE ST from KING ST to QUEENS DR												
1.7.175	QUEEN'S DR from 123m East of ROSEMOUNT AVE to 79 m West of ELM ST												
1.7.176	ELM ST from 50m North of QUEENS DR to QUEENS DR												
1.7.177	PINE ST from WILLIAM ST to MACDONALD AVE												
1.7.178	QUEEN'S DR from ELM ST to 82 m West of PINE ST												
1.7.179	QUEEN'S DR from 82m West of PINE ST to 188m West of PINE ST												
1.7.180	VIMY AVE from 145m West of LAWRENCE AVE W to 48 m West of LAWRENCE AVE W												
1.7.181	QUEEN'S DR from 73m West of ELM ST to ELM ST												
1.7.182	QUEEN'S DR from 188m West of PINE ST to PINE ST												
1.7.183	HELEN AVE (WADSWORTH BLVD) from WILLIAM ST to WADSWORTH BLVD												
1.7.184	KING ST from 112m West of PINE ST to PINE STREET												
1.7.185	WRIGHT AVE from 7m East of GIBSON ST to GIBSON ST												
1.7.186	PINE ST from JOHN ST to WILLIAM ST												
1.7.187	BOYD AVE from RALPH ST to 82 m East of RALPH ST												
1.7.188	RALPH ST from MACDONALD AVE to LAWRENCE AVE W												
1.7.189	WRIGHT AVE from 169m East of GIBSON ST to 7 m East of GIBSON ST												
1.7.190	PINE ST from KING ST to JOHN ST												
1.7.191	WILLIAM ST from PINE ST to 227 m East of PINE ST												
1.7.192	ROBERT ST from PORTAGE AVE to CYPRESS ST												
1.7.193	CYPRESS ST from WOODWARD AVE to ROBERT ST												
1.7.194	PORTAGE AVE from 75m South of QUEENSLEA AVE to ROBERT ST	2019 - 2020	$40,395,898	$ -	$ 40,395,898	85%	$ 34,418,778	$0	$ 5,977,119	$ -	$ -	$ 5,977,119	$ -

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.7	**PRIORITY LINEAR SANITARY CAPACITY PROJECTS CONTINUED**												
1.7.195	WESTON ROAD from WRIGHT AVE - 182 SOUTH OF to WRIGHT AVE - 96 SOUTH OF												
1.7.196	WESTON ROAD from WRIGHT AVE - 247 SOUTH OF to WRIGHT AVE - 182 SOUTH OF												
1.7.197	WESTON ROAD from WRIGHT AVE - 96 SOUTH OF to WRIGHT AVE	2018 - 2018	$760,000	$ -	$ 760,000	85%	$ 647,548	$0	$ 112,452	$ -	$ -	$ 112,452	$ -
1.7.198	CENTRE ROAD from EDMUND AVE to CLOUSTON AVE												
1.7.199	EDMUND AVENUE from 92m East of CENTRE RD to CENTRE RD												
1.7.200	EDMUND AVENUE from 228m East of CENTRE RD to CENTRE RD - 92m East of	2018 - 2018	$942,500	$ -	$ 942,500	85%	$ 803,044	$0	$ 139,456	$ -	$ -	$ 139,456	$ -
1.7.201	CLOUSTON AVENUE from WESTON RD - 192m East of to WESTON RD - 42m East of	2018 - 2018	$337,500	$ -	$ 337,500	85%	$ 287,562	$0	$ 49,938	$ -	$ -	$ 49,938	$ -
1.7.202	QUEENSLEA AVENUE from WENDELL AVE to GRATTAN ST												
1.7.203	QUEENSLEA AVENUE from WALWYN AVE - 93m West of to WALWYN AVE												
1.7.204	WALWYN AVENUE from QUEENSLEA AVE to LAMONT AVE												
1.7.205	WENDELL AVENUE from QUEENSLEA AVE - 85m North of to QUEENSLEA AVE												
1.7.206	LAMONT AVENUE from RANWOOD DR to LANGSIDE AVE - 43m West of												
1.7.207	LANGSIDE AVENUE from LAMONT AVE to WOODWARD AVE												
1.7.208	WOODWARD AVENUE from 15m East of CYPRESS ST to CYPRESS ST												
1.7.209	WOODWARD AVENUE from 35m East of CYPRESS ST to CYPRESS ST - 15m East of												
1.7.210	LANGSIDE AVENUE from WOODWARD AVE to WOODWARD AVE												
1.7.211	WENDELL AVENUE from QUEENSLEA AVE - 256m North of to QUEENSLEA AVE - 171m North of												
1.7.212	LAMONT AVENUE from PORTAGE AVE to PORTAGE AVE												
1.7.213	LAMONT AVENUE from PORTAGE AVE to RANWOOD DR												
1.7.214	QUEENSLEA AVENUE from GRATTAN ST to WALWYN AVE - 93m West of												
1.7.215	LAMONT AVENUE from LANGSIDE AVE - 43m West of to LANGSIDE AVE												
1.7.216	WENDELL AVENUE from QUEENSLEA AVE - 171m North of to QUEENSLEA AVE - 85m North of	2018 - 2018	$5,497,500	$ -	$ 5,497,500	85%	$ 4,684,071	$0	$ 813,429	$ -	$ -	$ 813,429	$ -
1.7.217	LAMONT AVENUE from WALWYN AVE to PORTAGE AVE	2018 - 2018		$ -	$ -	85%	$ -	$0	$ -	$ -	$ -	$ -	$ -
1.7.218	APPLEDALE RD from LESMAR DR to NORTH HEIGHTS RD												
1.7.219	LESMAR DR from LLOYD MANOR RD to APPLEDALE RD												
1.7.220	PRINCE GEORGE DR from BILSTON CRT to APPLEDALE RD												
1.7.221	APPLEDALE RD from FIRWOOD CRES to LESMAR DR												
1.7.222	FIRWOOD CRES from KIPLING AVE to APPLEDALE RD												
1.7.223	LLOYD MANOR RD from LLOYD MANOR RD to LESMAR DR	2018 - 2027	$5,968,250	$ -	$ 5,968,250	85%	$ 5,085,167	$0	$ 883,083	$ -	$ -	$ 883,083	$ -
1.7.224	BEAVERBROOK AVE from SHADOWBROOK DR to LLOYD MANOR RD												
1.7.225	BEAVERBROOK AVE from LLOYD MANOR RD to VASSAR DR												
1.7.226	BEAVERBROOK AVE from GLEN AGAR DR to SHADOWBROOK DR												
1.7.227	BEAVERBROOK AVE from THORNLY CRES to KIPLING AVE												
1.7.228	BEAVERBROOK AVE from VASSAR DR to APPLEDALE RD												
1.7.229	BEAVERBROOK AVE from VASSAR DR to THORNLY CRES	2018 - 2020	$1,569,750	$ -	$ 1,569,750	85%	$ 1,337,484	$0	$ 232,266	$ -	$ -	$ 232,266	$ -
1.7.230	TWYFORD RD from BALLANTYNE CRT to KIPLING AVE												
1.7.231	SIR WILLIAMS LANE from ABILENE DR to TWYFORD RD	2018 - 2027	$2,180,750	$ -	$ 2,180,750	85%	$ 1,858,079	$0	$ 322,671	$ -	$ -	$ 322,671	$ -
1.7.232	ALLONSIUS DR from WINDUST GT to RENFORTH DR												
1.7.233	RENFORTH DR from EMBERS DR to ALLONSIUS DR												
1.7.234	RENFORTH DR from RENOVA DR to EMBERS DR												
1.7.235	RENFORTH DR from EDA CRT to RENOVA DR												
1.7.236	RENFORTH DR from BURNHAMTHORPE RD to RATHGAR AVE												
1.7.237	RENFORTH DR from RATHGAR AVE to BOREAL RD												
1.7.238	TRANQUIL DR from BURNHAMTHORPE RD to BOREAL RD												
1.7.239	WINDUST GT from ALLONSIUS DR to BURNHAMTHORPE RD												
1.7.240	BURNHAMTHORPE RD from TUNBRIDGE CRES to TUNBRIDGE CRES												
1.7.241	BURNHAMTHORPE RD from TUNBRIDGE CRES to MULGROVE DR												
1.7.242	EASEMENT from ELDERFIELD CRES to BURNHAMTHORPE RD												
1.7.243	CRENDON DR from ULVERSTON RD to GLOS RD												
1.7.244	CRENDON DR from GLOS RD to BOTLEY RD												
1.7.245	BOTLEY RD from HERNSHAW CRES to CRENDON DR												
1.7.246	RENFORTH DR from CRENDON DR to BURNHAMTHORPE RD												
1.7.247	CARSBROOKE RD from ENDWOOD RD to KRIS CRT												
1.7.248	CARSBROOKE RD from ENDWOOD RD to RENFORTH DR												
1.7.249	RENFORTH DR from CARSBROOKE RD to ALLONSIUS DR												
1.7.250	RENFORTH DR from ALLONSIUS DR to CRENDON DR												
1.7.251	RENFORTH DR from CRENDON DR to EDA CRT												
1.7.252	BOREAL RD from TRANQUIL DR to SATURN RD												
1.7.253	SATURN RD from BOREAL RD to EASEMENT												
1.7.254	EASEMENT from SATURN RD to ELMCREST CREEK												
1.7.255	CARSBROOKE RD from CRENDON RD to KRIS CRT												
1.7.256	ELDERFIELD CRES from GLOS RD to GLOS RD												
1.7.257	SATURN RD from BURNHAMTHORPE RD to BOREAL RD												
1.7.258	BOREAL RD from RENFORTH DR to TRANQUIL DR												
1.7.259	GLOS RD from ELDERFIELD CRES to ELDERFIELD CRES												
1.7.260	BURNHAMTHORPE RD from TUNBRIDGE CRES to RENFORTH DR												
1.7.261	CRENDON DR from BOTLEY RD to RENFORTH DR												
1.7.262	GLOS RD from ELDERFIELD CRES to CRENDON DR	2019 - 2020	$72,784,750	$ -	$ 72,784,750	85%	$ 62,015,262	$0	$ 10,769,488	$ -	$ -	$ 10,769,488	$ -
1.7.263	O'CONNOR DR from 180m North of GLENWOOD CR to 90m North of GLENWOOD CR	2018 - 2018	$38,869,875	$ -	$ 38,869,875	85%	$ 33,118,551	$0	$ 5,751,324	$ -	$ -	$ 5,751,324	$ -

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.7	**PRIORITY LINEAR SANITARY CAPACITY PROJECTS CONTINUED**												
1.7.264	ST COLUMBA PL from 60m South of ST CLAIR AVE EAST to GLENWOOD CR												
1.7.265	GLENWOOD CR from REXLEIGH DR to 88m West of REXLEIGH DR												
1.7.266	TAYLOR CREEK TRL from GLENWOOD CR to 12m South of GLEDWOOD CR												
1.7.267	GLENWOOD CR from 88m West of REXLEIGH DR to 42m West of GLEN GANNON DR												
1.7.268	GLENWOOD CR from STAG HILL DR to 89m South of STAG HILL DR												
1.7.269	GLENWOOD CR from 140m North of STAG HILL DR to STAG HILL DR												
1.7.270	GLENWOOD CR from 87m North of GLENWOOD TER to GLENWOOD TER												
1.7.271	WESTVIEW BLVD from 70m North of DOHME AVE to DOHME AVE												
1.7.272	WESTVIEW BLVD from TIAGO AVE to 53m South of TIAGO AVE												
1.7.273	ST CLAIR AVE EAST from GLENEDEN CR to 11m West of GLENEDEN CR												
1.7.274	ST CLAIR AVE EAST from SELWYN AVE to 71m West of SELWYN AVE												
1.7.275	WESTVIEW BLVD from 57m North of TIAGO AVE to TIAGO AVE												
1.7.276	WESTVIEW BLVD from YARDLEY AVE to 60m South of YARDLEY AVE												
1.7.277	WESTVIEW BLVD from GALBRAITH AVE to YARDLEY AVE												
1.7.278	ST CLAIR AVE EAST from 13m East of GLENEDEN CR to GLENEDEN CR	2019 - 2021	$38,869,875	$ -	$ 38,869,875	85%	$ 33,118,551	$0	$ 5,751,324	$ -	$ -	$ 5,751,324	$ -
1.7.279	LOMAR DR from 97m North of RYEWOOD DRIVE to RYEWOOD DRIVE												
1.7.280	STANLEY ROAD from RICKLAN DRIVE to 88m West of RICKLAN DRIVE												
1.7.281	LAURA RD from STANLEY ROAD to 25m North of STANLEY ROAD	2018 - 2018	$36,363,895	$ -	$ 36,363,895	85%	$ 30,983,365	$0	$ 5,380,530	$ -	$ -	$ 5,380,530	$ -
1.7.282	EASEMENT from GRANDRAVINE DR, 47m West of SENTINEL RD to BLACK CREEK	2018 - 2027	$17,182,500	$ -	$ 17,182,500	85%	$ 14,640,117	$0	$ 2,542,383	$ -	$ -	$ 2,542,383	$ -
1.7.283	FALLINGDALE CRES from HUCKNALL RD to IKLEY RD	2018 - 2018		$ -	$ -	85%	$ -	$0	$ -	$ -	$ -	$ -	$ -
1.7.284	JANE ST from WILLIAM CRAGG DR to 552m South of WILLIAM CRAGG DR	2018 - 2020	$1,882,170	$ -	$ 1,882,170	85%	$ 1,603,677	$0	$ 278,493	$ -	$ -	$ 278,493	$ -
1.7.285	MONCLOVA RD from 9m North of DATCHET RD to DATCHET RD												
1.7.286	NEAMES CRES from NEAMES CRES to 873m North of NEANES CRES	2018 - 2020	$16,167,810	$ -	$ 16,167,810	85%	$ 13,775,564	$0	$ 2,392,246	$ -	$ -	$ 2,392,246	$ -
1.7.287	NORTH PARK RAVINE from 97m South of EDISON CRCL to 100m South of LOOKOUT PL	2018 - 2027	$2,952,500	$ -	$ 2,952,500	85%	$ 2,515,638	$0	$ 436,862	$ -	$ -	$ 436,862	$ -
1.7.288	MAPLE LEAF DR from LISCOMBE RD to STELLA ST	2018 - 2027	$6,077,500	$ -	$ 6,077,500	85%	$ 5,178,252	$0	$ 899,248	$ -	$ -	$ 899,248	$ -
1.7.289	DE MARCO BLVD from DANTE RD to LAWRENCE AVE W	2018 - 2027	$2,400,000	$ -	$ 2,400,000	85%	$ 2,044,888	$0	$ 355,112	$ -	$ -	$ 355,112	$ -
1.7.290	GLENCAIRN AVE from ENNERDALE ST to LANSDOWNE AVE												
1.7.291	EASEMENT from GLENCAIRN AVE to TYCOS DR												
1.7.292	TYCOS DR from ENNERDALE ST to EASEMENT												
1.7.293	EASEMENT from 100m North of TYCOS DR to 150m West of DUFFERIN ST												
1.7.294	EASEMENT from TYCOS DR to 100m North of TYCOS DR	2018 - 2019	$5,000,000	$ -	$ 5,000,000	85%	$ 4,260,182	$0	$ 739,818	$ -	$ -	$ 739,818	$ -
1.7.295	DUFFERIN ST from DANE AVE to LAWRENCE AVE W												
1.7.296	MULHOLLAND AVE from 80m South of CELT AVE to DANE AVE	2019 - 2020	$800,000	$ -	$ 800,000	85%	$ 681,629	$0	$ 118,371	$ -	$ -	$ 118,371	$ -
1.7.297	WILLIAM R ALLEN RD N from WILLIAM R ALLEN RD N to VIEWMOUNT PARK TRL	2018 - 2018	$2,485,500	$ -	$ 2,485,500	85%	$ 2,117,737	$0	$ 367,763	$ -	$ -	$ 367,763	$ -
1.7.298	HILLHURST BLVD from BATHURST ST to RUBY CRES	2019 - 2020	$102,527,750	$ -	$ 102,527,750	85%	$ 87,357,383	$0	$ 15,170,367	$ -	$ -	$ 15,170,367	$ -
1.7.299	LAWRENCE AVE W from 89m West of SHERMOUNT AVE to SHERMOUNT AVE												
1.7.300	SHERMOUNT AVE from LAWRENCE AVE W to HILLMOUNT AVE												
1.7.301	HILLMOUNT AVE from SHERMOUNT AVE to BATHURST ST												
1.7.302	BATHURST ST from HILLMOUNT AVE to HILLHURST BLVD												
1.7.303	GLEN LONG PARK from #26 GLEN LONG PARK to ENNERDALE ST	2018 - 2027	$0	$ -	$ -	85%	$ -	$0	$ -	$ -	$ -	$ -	$ -
1.7.304	WESTGATE BLVD from SANDRINGHAM DR to WESTGATE CRES												
1.7.305	WESTGATE BLVD (WESTGATE RAVINE PATHWAY) from SANDRINGHAM DR to 150M NEAST OF SANDRINGHAM DR												
1.7.306	WESTGATE BLVD from WESTGATE CRES to AMOUR BLVD	2018 - 2018	$32,134,250	$ -	$ 32,134,250	85%	$ 27,379,553	$0	$ 4,754,697	$ -	$ -	$ 4,754,697	$ -
1.7.307	TIMBERLANE DR from 55m East of BATHURST ST to 105m East of BATHURST ST												
1.7.308	GARRATT BLVD from REGENT RD to WILSON AVE												
1.7.309	ELLISON AVE from 160m East of YEOMANS RD to 80m West of BATHURST ST												
1.7.310	ELLISON AVE from 80m West of BATHURST ST to BATHURST ST												
1.7.311	WESTGATE BLVD (NOT WESTGATE RAVINE) from WESTGATE BLVD to WESTGATE BLVD												
1.7.312	TIMBERLANE from 105m East of BATHURST ST to 157m East of BATHURST ST												
1.7.313	PLANNING BOUNDARY (AT WILSON AVE) from BILLY BISHOP WAY to 160m West of BILLY BISHOP WAY												
1.7.314	PLANNING BOUNDARY (AT WILSON AVE) from BILLY BISHOP WAY to BILLY BISHOP WAY	2018 - 2018	$28,259,000	$ -	$ 28,259,000	85%	$ 24,077,699	$0	$ 4,181,301	$ -	$ -	$ 4,181,301	$ -
1.7.315	FAYWOOD BLVD from LAURELCREST AVE to 28m South of PALM DR												
1.7.316	KING HIGH AVE from 81m South of LAURELCREST AVE to REDMOUNT RD												
1.7.317	KING HIGH AVE from LAURELCREST AVE to 65m North of REDMOUNT RD												
1.7.318	LAURELCREST AVE from FAYWOOD BLVD to KING HIGH AVE												
1.7.319	LAURELCREST AVE from KING HIGH AVE to KING HIGH AVE	2018 - 2018	$576,000	$ -	$ 576,000	85%	$ 490,773	$0	$ 85,227	$ -	$ -	$ 85,227	$ -
1.7.320	SHAFTESBURY ST from KENNARD AVE to CLIFTON AVE												
1.7.321	HOVE ST from 70m North of BRIGHTON AVE to BRIGHTON AVE												
1.7.322	HOVE ST from ACTON AVE to 70m North of BRIGHTON AVE												
1.7.323	OVERBROOK PL from 90m West of WILMINGTON AVE to SHAFTESBURY ST												
1.7.324	OVERBROOK PL from WILMINGTON AVE to 102m East of SHAFTESBURY ST												
1.7.325	OVERBROOK PL from WILMINGTON AVE to 93m West of ELDER ST												
1.7.326	MAXWELL from SEARLE AVE to BRIGHTON AVE												
1.7.327	CLIFTON AVE from 96m West of WILMINGTON AVE to SHAFTESBURY ST												
1.7.328	CLIFTON AVE from WILMINGTON AVE to 95m East of SHAFTESBURY ST												
1.7.329	OVERBROOK PL from 100m East of WILMINGTON AVE to ELDER ST												
1.7.330	BEAVER VALLEY RD from 60m West of MAXWELL ST to ARTEEVA DR	2018 - 2018	$4,794,000	$ -	$ 4,794,000	85%	$ 4,084,663	$0	$ 709,337	$ -	$ -	$ 709,337	$ -

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.7	**PRIORITY LINEAR SANITARY CAPACITY PROJECTS CONTINUED**												
1.7.331	COCKSFIELD AVE from 7m West of CASINO CRT to 2m East of CASINO CRT	2018 - 2019	$32,200,750	$ -	$ 32,200,750	85%	$ 27,436,214	$0	$ 4,764,536	$ -	$ -	$ 4,764,536	$ -
1.7.332	PALM DR from 55m West of BATHURST ST to BATHURST ST												
1.7.333	BATHURST ST from BATHURST ST to ROMNEY RD												
1.7.334	ROMNEY RD from 11m East of BATHURST ST to 22m East of BATHURST ST												
1.7.335	ROMNEY RD from 22m East of BATHURST ST to 83m West of ARMOUR BLVD	2018 - 2018	$9,690,500	$ -	$ 9,690,500	85%	$ 8,256,659	$0	$ 1,433,841	$ -	$ -	$ 1,433,841	$ -
1.7.336	COCKSFIELD AVE from 3m East of MAXWELL ST to 10m East of MAXWELL ST	2019 - 2020	$42,728,750	$ -	$ 42,728,750	85%	$ 36,406,454	$0	$ 6,322,296	$ -	$ -	$ 6,322,296	$ -
1.7.337	MOCCASIN TRL from 10m North of WW S THE DONWAY E MOCCASIN to 50m South of WW S THE DONWAY E MOCCASIN												
1.7.338	THE DONWAY E from 15 THE DONWAY E to 15 THE DONWAY E												
1.7.339	MOCCASIN TRL from 7m North of MOCCASIN TRL to 7m North of MOCCASIN TRL	2020 - 2022	$12,527,238	$ -	$ 12,527,238	85%	$ 10,673,663	$0	$ 1,853,574	$ -	$ -	$ 1,853,574	$ -
1.7.340	GREENLAND RD from 25m North of GREENLAND RD to 25m North of GREENLAND RD												
1.7.341	WAXWING PL from 4m North of WAXWING PL to 4m North of WAXWING PL	2020 - 2022	$729,750	$ -	$ 729,750	85%	$ 621,774	$0	$ 107,976	$ -	$ -	$ 107,976	$ -
1.7.342	DEEPWOOD CRES from 24 DEEPWOOD CRES to 24 DEEPWOOD CRES												
1.7.343	DEEPWOOD CRES from 36 DEEPWOOD CRES to 36 DEEPWOOD CRES	2020 - 2022	$2,119,000	$ -	$ 2,119,000	85%	$ 1,805,465	$0	$ 313,535	$ -	$ -	$ 313,535	$ -
1.7.344	BROADLEAF RD from 5m South of BROADLEAF RD to 5m South of BROADLEAF RD	2020 - 2022	$2,581,250	$ -	$ 2,581,250	85%	$ 2,199,319	$0	$ 381,931	$ -	$ -	$ 381,931	$ -
1.7.345	THORN LANE from 6m North of THORN LANE to 6m North of THORN LANE												
1.7.346	CEDARBANK CRES from 18 CEDARBANK CRES to 18 CEDARBANK CRES	2020 - 2022	$140,500	$ -	$ 140,500	85%	$ 119,711	$0	$ 20,789	$ -	$ -	$ 20,789	$ -
1.7.347	CHIPPING RD from 9m North of CHIPPING RD to 9m North of CHIPPING RD	2020 - 2022	$228,500	$ -	$ 228,500	85%	$ 194,690	$0	$ 33,810	$ -	$ -	$ 33,810	$ -
1.7.348	FARMCOTE RD from YEWFIELD CRES to YEWFIELD CRES												
1.7.349	YEWFIELD CRES from 100m North of FARMCOTE RD to FARMCOTE RD												
1.7.350	LEGATO CRT from 9m East of LEGATO CRT to 9m East of LEGATO CRT												
1.7.351	YEWFIELD CRES from 44m North of YEWFIELD CRES to 44m North of YEWFIELD CRES												
1.7.352	FARMCOTE RD from 23m East of FARMCOTE RD to 23m East of FARMCOTE RD												
1.7.353	SWIFTDALE PL from 35m West of SWIFTDALE PL to 35m West of SWIFTDALE PL												
1.7.354	HERMIT CRT from 11m North of HERMIT CRT to 11m North of HERMIT CRT												
1.7.355	YEWFIELD CRES from 52m South of YEWFIELD CRES to 52m South of YEWFIELD CRES	2020 - 2022	$4,711,738	$ -	$ 4,711,738	85%	$ 4,014,572	$0	$ 697,165	$ -	$ -	$ 697,165	$ -
1.7.356	KERN RD from 15m West of KERN RD to 15m West of KERN RD												
1.7.357	KERN RD from 91m West of KERN RD to 91m West of KERN RD	2020 - 2022	$5,022,918	$ -	$ 5,022,918	85%	$ 4,279,709	$0	$ 743,209	$ -	$ -	$ 743,209	$ -
1.7.358	FIRTHWAY CRT from 2m East of FIRTHWAY CRT to 2m East of FIRTHWAY CRT												
1.7.359	TANBARK CRES from 86m South of TANBARK CRES to 86m South of TANBARK CRES												
1.7.360	DENLOW BLVD from TEAKWOOD GRV to LEACOCK CRES												
1.7.361	BARRYDALE CRES from 94m East of BARRYDALE CRES to 94m East of BARRYDALE CRES												
1.7.362	AMES CRCL from 88m North of AMES CRCL to 88m North of AMES CRCL												
1.7.363	ABBEYWOOD TRL from 77m West of ABBEYWOOD TRL to 77m West of ABBEYWOOD TRL	2020 - 2022	$44,597,295	$ -	$ 44,597,295	85%	$ 37,998,522	$0	$ 6,598,773	$ -	$ -	$ 6,598,773	$ -
1.7.364	CASSIDY PL from 33m North of CASSIDY PL to 33m North of CASSIDY PL												
1.7.365	MALLOW RD from 31m East of MALLOW RD to 31m East of MALLOW RD												
1.7.366	LANGBOURNE PL from NORDEN CRES to JOCELYN CRES												
1.7.367	LANGBOURNE PL from JOCELYN CRES to 30m East of JOCELYN CRES												
1.7.368	BIRCHBANK LANE from 8m North of BIRCHBANK LANE to 8m North of BIRCHBANK LANE												
1.7.369	BELTON RD from 27m West of BELTON RD to 27m West of BELTON RD	2020 - 2022	$26,475,960	$ -	$ 26,475,960	85%	$ 22,558,484	$0	$ 3,917,476	$ -	$ -	$ 3,917,476	$ -
1.7.370	SCARSDALE RD from 105 SCARSDALE RD to 105 SCARSDALE RD												
1.7.371	BERKINSHAW CRES from 53m North of BERKINSHAW CRES to 53m North of BERKINSHAW CRES												
1.7.372	SCARSDALE RD from 60 SCARSDALE RD to 60 SCARSDALE RD												
1.7.373	OVERTON CRES from 4m North of DUNCAIRN PARK TRL to 4m North of DUNCAIRN PARK TRL												
1.7.374	BOND AVE from 13m South of PLANNING BOUNDARY to 13m South of PLANNING BOUNDARY												
1.7.375	SCARSDALE RD from 85 SCARSDALE RD to 85 SCARSDALE RD												
1.7.376	GRANGEMILL CRES from 72 GRANGEMILL CRES to 72 GRANGEMILL CRES												
1.7.377	DUNCAIRN PARK TRL from 8m East of DUNCAIRN PARK TRL to 8m East of DUNCAIRN PARK TRL												
1.7.378	SHADWELL PL from 8m North of SHADWELL PL to 8m North of SHADWELL PL												
1.7.379	TALWOOD DR from 45m East of TALWOOD DR to 45m East of TALWOOD DR												
1.7.380	CHELFORD RD from 69m North of CHELFORD RD to 69m North of CHELFORD RD												
1.7.381	GRANGEMILL CRES from 52m West of GRANGEMILL CRES to 52m West of GRANGEMILL CRES	2020 - 2022	$54,023,600	$ -	$ 54,023,600	85%	$ 46,030,078	$0	$ 7,993,522	$ -	$ -	$ 7,993,522	$ -
1.7.382	CROSSBURN DR from 37 CROSSBURN DR to 37 CROSSBURN DR												
1.7.383	CROSSBURN DR from 85m South of CROSSBURN DR to 85m East of CROSSBURN DR	2020 - 2022	$3,386,605	$ -	$ 3,386,605	85%	$ 2,885,511	$0	$ 501,094	$ -	$ -	$ 501,094	$ -

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.7	**PRIORITY LINEAR SANITARY CAPACITY PROJECTS CONTINUED**												
1.7.384	ECCLESTON DR from ELVASTON DR to 49m West of ELVASTON DR												
1.7.385	EASEMENT from 30m North of ECCLESTON DR to 75m North of ECCLESTON DR												
1.7.386	ELVASTON DR from #147 ELVASTON DR to ECCLESTON DR												
1.7.387	ELVASTON DR from #121 ELVASTON DR to #129 ELVASTON DR												
1.7.388	ELVASTON DR from HALKIN CRES EAST to #91 ELVASTON DR												
1.7.389	ELVASTON DR from HALKIN CRES to #121 ELVASTON DR												
1.7.390	ELVASTON DR from #141 ELVASTON DR to #147 ELVASTON DR												
1.7.391	ELVASTON DR from #129 ELVASTON DR to #141 ELVASTON DR												
1.7.392	ELVASTON DR from #101 ELVASTON DR to HALKIN CRES WEST												
1.7.393	ELVASTON DR from #91 ELVASTON DR to #101 ELVASTON DR	2020 - 2021	$12,550,348	$ -	$ 12,550,348	85%	$ 10,693,354	$0	$ 1,856,994	$ -	$ -	$ 1,856,994	$ -
1.7.394	FORTROSE CRES from 106 FORTROSE CRES to 106 FORTROSE CRES												
1.7.395	SKELMORE CRES from 97m East of SKELMORE CRES to 97m East of SKELMORE CRES												
1.7.396	ROYWOOD DR from 67m West of ROYWOOD DR to 67m West of ROYWOOD DR												
1.7.397	MARBURY CRES from 78m South of MARBURY CRES to 78m South of MARBURY CRES												
1.7.398	MARBURY CRES from 55m North of MARBURY CRES to 55m North of MARBURY CRES												
1.7.399	ROYWOOD DR from 3m North of ROYWOOD DR to 3m North of ROYWOOD DR												
1.7.400	BALTRAY CRES from 97m North of BALTRAY CRES to 97m North of BALTRAY CRES												
1.7.401	BILLINGTON CRES from 77m North of BILLINGTON CRES to 77m North of BILLINGTON CRES												
1.7.402	BILLINGTON CRES from 3m North of BILLINGTON CRES to 3m North of BILLINGTON CRES	2021 - 2022	$15,688,250	$ -	$ 15,688,250	85%	$ 13,366,961	$0	$ 2,321,289	$ -	$ -	$ 2,321,289	$ -
1.7.403	FARM GREENWAY from 31m North of ROYWOOD PARK TRL to 31m North of ROYWOOD PARK TRL												
1.7.404	ROYWOOD DR from 30m West of ROYWOOD DR to 30m West of ROYWOOD DR	2021 - 2022	$5,170,000	$ -	$ 5,170,000	85%	$ 4,405,029	$0	$ 764,971	$ -	$ -	$ 764,971	$ -
1.7.405	BROOKBANKS PARK TRL from 15m North of YORK MILLS RD to CANNONBURY CRTYORK MILLS RD												
1.7.406	DUKINFIELD CRES from 4m North of DUKINFIELD CRES to 4m North of DUKINFIELD CRES												
1.7.407	CLAYLAND DR from 73m North of CLAYLAND DR to 73m North of CLAYLAND DR	2021 - 2022		$ -	$ -	85%	$ -	$0	$ -	$ -	$ -	$ -	$ -
1.7.408	CANNONBURY CRT from 10m North of CANNONBURY CRT to 10m North of CANNONBURY CRT												
1.7.409	PTARMIGAN CRES from 8m West of PTARMIGAN CRES to 8m West of PTARMIGAN CRES												
1.7.410	COMBERMERE DR from 1m North of PINEMORE CRES to 1m North of PINEMORE CRES												
1.7.411	COMBERMERE DR from 1m East of COMBERMERE DR to 1m East of COMBERMERE DR												
1.7.412	WALLINGFORD RD from 5m North of WALLINGFORD RD to 5m North of WALLINGFORD RD												
1.7.413	TREADGOLD CRES from 65m North of TREADGOLD CRES to 65m North of TREADGOLD CRES	2021 - 2022	$24,447,500	$ -	$ 24,447,500	85%	$ 20,830,162	$0	$ 3,617,338	$ -	$ -	$ 3,617,338	$ -
1.7.414	SAGEBRUSH LANE from 6m West of SAGEBRUSH LANE to 6m West of SAGEBRUSH LANE												
1.7.415	LICHEN PL from 7m West of LICHEN PL to 7m West of LICHEN PL												
1.7.416	SAGEBRUSH LANE from 4m South of SAGEBRUSH LANE to 4m South of SAGEBRUSH LANE	2021 - 2022	$3,128,250	$ -	$ 3,128,250	85%	$ 2,665,383	$0	$ 462,867	$ -	$ -	$ 462,867	$ -
1.7.417	HOCKLEY PL from 7m North of HOCKLEY PL to 7m North of HOCKLEY PL												
1.7.418	TRUXFORD RD from 10m East of TRUXFORD RD to 10m East of TRUXFORD RD	2021 - 2022	$2,980,500	$ -	$ 2,980,500	85%	$ 2,539,495	$0	$ 441,005	$ -	$ -	$ 441,005	$ -
1.7.419	OVERBANK CRES from 9m North of OVERBANK CRES to 9m North of OVERBANK CRES	2021 - 2022	$2,015,500	$ -	$ 2,015,500	85%	$ 1,717,280	$0	$ 298,220	$ -	$ -	$ 298,220	$ -
1.7.420	BRUSHWOOD CRT from 8m West of BRUSHWOOD CRT to 8m West of BRUSHWOOD CRT	2021 - 2022	$2,070,250	$ -	$ 2,070,250	85%	$ 1,763,929	$0	$ 306,321	$ -	$ -	$ 306,321	$ -
1.7.421	VALLEY WOODS RD from 55m East of VALLEY WOODS RD to 55m East of VALLEY WOODS RD	2021 - 2022	$1,168,000	$ -	$ 1,168,000	85%	$ 995,179	$0	$ 172,821	$ -	$ -	$ 172,821	$ -
1.7.422	GROVELAND CRES from 91m East of GROVELAND CRES to 91m East of GROVELAND CRES	2021 - 2022	$5,166,500	$ -	$ 5,166,500	85%	$ 4,402,046	$0	$ 764,454	$ -	$ -	$ 764,454	$ -
1.7.423	LACEWOOD CRES from 60m North of LACEWOOD CRES to 60m North of LACEWOOD CRES	2021 - 2022	$7,634,000	$ -	$ 7,634,000	85%	$ 6,504,446	$0	$ 1,129,554	$ -	$ -	$ 1,129,554	$ -
1.7.424	THREE VALLEYS DR from 121 THREE VALLEYS DR to 121 THREE VALLEYS DR	2021 - 2022	$3,689,000	$ -	$ 3,689,000	85%	$ 3,143,163	$0	$ 545,837	$ -	$ -	$ 545,837	$ -
1.7.425	YORKVIEW DRIVE from to	2018 - 2027	$0	$ -	$ -	85%	$ -	$0	$ -	$ -	$ -	$ -	$ -
1.7.426	CAMERON AVE from 4m East of WALKER RD to 189 CAMERON AVE												
1.7.427	PEWTER RD from 7m South of FLORENCE AVE to 6m South of CAMERON AVE												
1.7.428	FRANKLIN AVE from 15m West of PLANNING BOUNDARY to 3m East of PLANNING BOUNDARY												
1.7.429	FRANKLIN AVE from 17m North of PLANNING BOUNDARY to 11m South of FRANKLIN AVE												
1.7.430	FLORENCE AVE from 86m East of FLORENCE AVE to 7m South of FLORENCE AVE												
1.7.431	CAMERON AVE from 189 CAMERON AVE to 7m East of RADINE RD												
1.7.432	CAMERON AVE from 6m South of CAMERON AVE to 4m East of WALKER RD												
1.7.433	FRANKLIN AVE from 13m West of WALKER RD to 17m North of PLANNING BOUNDARY												
1.7.434	FRANKLIN AVE from 82m East of FRANKLIN AVE to 1m North of RADINE RD												
1.7.435	FRANKLIN AVE from 11m South of FRANKLIN AVE to 82m East of FRANKLIN AVE												
1.7.436	FRANKLIN AVE from 3m East of PLANNING BOUNDARY to 13m West of WALKER RD												
1.7.437	FRANKLIN AVE from 82m East of FRANKLIN AVE to 6m South of RADINE RD												
1.7.438	FRANKLIN AVE from 8m South of FRANKLIN AVE to 15m West of PLANNING BOUNDARY	2021 - 2023	$14,550,000	$ -	$ 14,550,000	85%	$ 12,397,131	$0	$ 2,152,869	$ -	$ -	$ 2,152,869	$ -
1.7.439	TEFLEY ROAD from 50m West of TEFLEY RD to 92m East of TEFLEY RD												
1.7.440	TEFLEY ROAD from 2m East of TEFLEY RD to 50m West of TEFLEY RD												
1.7.441	TEFLEY ROAD from 92m East of TEFLEY RD to 4m North of GRANTBROOK ST	2020 - 2022	$3,439,338	$ -	$ 3,439,338	85%	$ 2,930,441	$0	$ 508,896	$ -	$ -	$ 508,896	$ -
1.7.442	FINCH AVENUE WEST from 89m West of FINCH AVE W to 9m South of FINCH AVE W												
1.7.443	FINCH AVENUE WEST from 39m East of FINCH AVE W to 89m West of FINCH AVE W												
1.7.444	FINCH AVENUE WEST from 9m South of FINCH AVE W to 7m East of EDITHVALE DR	2020 - 2022	$977,450	$ -	$ 977,450	85%	$ 832,823	$0	$ 144,627	$ -	$ -	$ 144,627	$ -
1.7.445	FINCH AVENUE WEST from 28m West of FINCH AVE W to 4m North of ALTAMONT RD	2020 - 2022	$236,225	$ -	$ 236,225	85%	$ 201,272	$0	$ 34,953	$ -	$ -	$ 34,953	$ -
1.7.446	PARK HOME AVENUE from 5 PARK HOME AVE to 63m West of PARK HOME AVE												
1.7.447	EMPRESS AVENUE from 8m East of EMPRESS AVE to 4m East of WILLOWDALE PARK TRL	2020 - 2022	$2,997,255	$ -	$ 2,997,255	85%	$ 2,553,771	$0	$ 443,484	$ -	$ -	$ 443,484	$ -
1.7.448	ELLERSLIE AVENUE from 98m West of ELLERSLIE AVE to 4m South of TAMWORTH RD												
1.7.449	ELLERSLIE AVENUE from 97m East of ELLERSLIE AVE to 98m West of ELLERSLIE AVE												
1.7.450	TAMWORTH ROAD from 74m North of TAMWORTH RD to 4m South of CHURCHILL AVE												
1.7.451	TAMWORTH ROAD from 4m South of TAMWORTH RD to 4m South of HORSHAM AVE												
1.7.452	TAMWORTH ROAD from 98m North of TAMWORTH RD to 4m South of TAMWORTH RD												
1.7.453	TAMWORTH ROAD from 4m South of CHURCHILL AVE to 98m North of TAMWORTH RD												
1.7.454	TAMWORTH ROAD from 4m South of HORSHAM AVE to 74m North of TAMWORTH RD	2020 - 2022	$3,372,783	$ -	$ 3,372,783	85%	$ 2,873,734	$0	$ 499,049	$ -	$ -	$ 499,049	$ -
1.7.455	SPRING GARDEN AVENUE from 3m South of KENNETH AVE to 10m East of KENNETH AVE	2020 - 2022	$2,810,628	$ -	$ 2,810,628	85%	$ 2,394,757	$0	$ 415,870	$ -	$ -	$ 415,870	$ -
1.7.456	KINGSDALE AVENUE from 1m North of ESTELLE AVE to 392 KINGSDALE AVE												
1.7.457	KINGSDALE AVENUE from 392 KINGSDALE AVE to 5m West of KINGSDALE AVE												
1.7.458	ESTELLE AVENUE from 1m North of ESTELLE AVE to 1m North of ESTELLE AVE												
1.7.459	ESTELLE AVENUE from 53m South of ESTELLE AVE to 1m North of ESTELLE AVE	2021 - 2023	$3,673,918	$ -	$ 3,673,918	85%	$ 3,130,312	$0	$ 543,606	$ -	$ -	$ 543,606	$ -
1.7.460	ELMWOOD AVENUE from 8m East of ELMWOOD AVE to 86m West of ELMWOOD AVE												
1.7.461	FOXWARREN DRIVE from 40m East of FOXWARREN DR to 61m West of FOXWARREN DR												
1.7.462	FOXWARREN DRIVE from 61m West of FOXWARREN DR to 2m East of FOXWARREN DR												
1.7.463	ELMWOOD AVENUE from 86m West of ELMWOOD AVE to 12m West of ELMWOOD AVE	2021 - 2023	$2,900,570	$ -	$ 2,900,570	85%	$ 2,471,391	$0	$ 429,179	$ -	$ -	$ 429,179	$ -
1.7.464	HILDA AVE from 100m South of DREWRY AVE to PATRICIA AVE	2018 - 2027	$8,941,075	$ -	$ 8,941,075	85%	$ 7,618,122	$0	$ 1,322,953	$ -	$ -	$ 1,322,953	$ -
1.7.465	GLENTWORTH RD from 100m South of ENNISMORE PL to ENNISMORE PL	2018 - 2027	$25,887,015	$ -	$ 25,887,015	85%	$ 22,056,681	$0	$ 3,830,334	$ -	$ -	$ 3,830,334	$ -
1.7.466	EASEMENT from BANSTOCK DR to FINCH AVE E												

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.7	**PRIORITY LINEAR SANITARY CAPACITY PROJECTS CONTINUED**												
1.7.467	FINCH AVE E from 370M E OF PAGE AVE to 460m East of PAGE AVE	2018 - 2027	$12,453,870	$ -	$ 12,453,870	85%	$ 10,611,152	$0	$ 1,842,718	$ -	$ -	$ 1,842,718	$ -
1.7.468	EASEMENT from OLD CUMMER AVE to DON RIVER E BRANCH												
1.7.469	OLD CUMMER AVE from CUMMER AVE to EASEMENT												
1.7.470	CUMMER AVE from BEARDMORE CRES to OLD CUMMER AVE												
1.7.471	SNOWCREST AVE from COLONNADE RD to CUMMER AVE	2018 - 2027	$4,223,110	$ -	$ 4,223,110	85%	$ 3,598,244	$0	$ 624,866	$ -	$ -	$ 624,866	$ -
1.7.472	FOREST GROVE DR from RESTWELL CRES to COURTWOOD PL												
1.7.473	RESTWELL CRES from FOREST GROVE DR to VIAMEDE CRES	2018 - 2027	$15,773,363	$ -	$ 15,773,363	85%	$ 13,439,480	$0	$ 2,333,882	$ -	$ -	$ 2,333,882	$ -
1.7.474	ALAMOSA DR from BOLDMERE CRES to APPIAN DR	2018 - 2027	$14,157,500	$ -	$ 14,157,500	85%	$ 12,062,706	$0	$ 2,094,794	$ -	$ -	$ 2,094,794	$ -
1.7.475	EASEMENT from PAULTIEL DR to CONACHER DR												
1.7.476	PAULTIEL DR from 118m West of ROBINTER DR to ROBINTER DR												
1.7.477	ROBINTER DR from PAULTIEL DR to NEWTON DR												
1.7.478	NEWTON DR from ROBINTER DR to 75m West of BAYVIEW AVE	2018 - 2027	$19,773,820	$ -	$ 19,773,820	85%	$ 16,848,016	$0	$ 2,925,804	$ -	$ -	$ 2,925,804	$ -
1.7.479	NEWTON DR from MAXOME AVE to CASWELL DR												
1.7.480	NEWTON DR from ANETA CRCL to CASWELL DR	2018 - 2027	$19,610,030	$ -	$ 19,610,030	85%	$ 16,708,461	$0	$ 2,901,569	$ -	$ -	$ 2,901,569	$ -
1.7.481	ELINOR AVE from LAWRENCE AVE E to BRIAN AVE	2018 - 2027	$47,613,373	$ -	$ 47,613,373	85%	$ 40,568,330	$0	$ 7,045,042	$ -	$ -	$ 7,045,042	$ -
1.7.482	OLD SHEPPARD AVE from BRIAN DR to CAIRNSIDE CRES	2018 - 2027	$43,191,500	$ -	$ 43,191,500	85%	$ 36,800,733	$0	$ 6,390,767	$ -	$ -	$ 6,390,767	$ -
1.7.483	KINGSLAKE RD from 90m South of MOSEDALE CR to MOSEDALE CR	2018 - 2027	$22,417,500	$ -	$ 22,417,500	85%	$ 19,100,528	$0	$ 3,316,972	$ -	$ -	$ 3,316,972	$ -
1.7.484	LUTTRELL AVE from LN 2 S DANFORTH W LUTTRELL to DANFORTH AVE												
1.7.485	DANFORTH AVE from LUTTRELL AVELUTTRELL AVE to KELVIN AVE	2018 - 2027	$1,512,500	$ -	$ 1,512,500	85%	$ 1,288,705	$0	$ 223,795	$ -	$ -	$ 223,795	$ -
1.7.486	KINGSTON RD from MAIN ST to WOODBINE AVE												
1.7.487	KINGSTON RD from WOODBINE AVE to EDGEWOOD AVE												
1.7.488	MAIN ST from GERRARD ST E to KINGSTON RD												
1.7.489	KINGSTON RD from LEE AVE to ELMER AVE												
1.7.490	KINGSTON RD from COLUMBINE AVE to EDGEWOOD AVE	2018 - 2027	$16,376,130	$ -	$ 16,376,130	85%	$ 13,953,060	$0	$ 2,423,070	$ -	$ -	$ 2,423,070	$ -
1.7.491	IVY AVE from 68m West of GREENWOOD AVE to PRUST AVE	2018 - 2027	$950,000	$ -	$ 950,000	85%	$ 809,435	$0	$ 140,565	$ -	$ -	$ 140,565	$ -
1.7.492	EASTERN AVE from LN E CAROLINE N EASTERN to MOSLEY ST												
1.7.493	WINNIFRED AVE from 74m South of QUEEN ST E to EASTERN AVE												
1.7.494	EASTERN AVE from PAPE AVE to CAROLINE AVE												
1.7.495	LESLIE ST from MOSLEY ST to 56m South of MOSLEY ST												
1.7.496	EASTERN AVE from WINNIFRED AVE to CAROLINE AVE												
1.7.497	MOSLEY ST from EASTERN AVE to LESLIE ST												
1.7.498	EASEMENT from EASTERN AVE to LAKE SHORE BLVD E												
1.7.499	EASTERN AVE from HEWARD AVE to CARLAW AVE	2020 - 2021	$4,717,170	$ -	$ 4,717,170	85%	$ 4,019,201	$0	$ 697,969	$ -	$ -	$ 697,969	$ -
1.7.500	GLEN MANOR DR from BEAUFORT RD to GLEN MANOR DR E	2020 - 2020	$445,500	$ -	$ 445,500	85%	$ 379,582	$0	$ 65,918	$ -	$ -	$ 65,918	$ -
1.7.501	RAINSFORD RD from 9m South of LN N QUEEN W WOODBINE to QUEEN ST E	2020 - 2020	$88,308	$ -	$ 88,308	85%	$ 75,241	$0	$ 13,066	$ -	$ -	$ 13,066	$ -
1.7.502	ELMER AVE from 56m North of LN N QUEEN E ELMER to QUEEN ST E	2020 - 2020	$302,038	$ -	$ 302,038	85%	$ 257,347	$0	$ 44,691	$ -	$ -	$ 44,691	$ -
1.7.503	QUEEN ST E from BELLEFAIR AVE to BELLEFAIR AVE												
1.7.504	QUEEN ST E from WHEELER AVE to WHEELER AVE												
1.7.505	QUEEN ST E from 25m West of KENILWORTH AVE (E INTERSECTION) to KENILWORTH AVE (W INTERSECTION)												
1.7.506	QUEEN ST E from 69m West of WAVERLEY RD to 7m East of KENILWORTH AVE (E INTERSECTIO	2020 - 2020	$66,700	$ -	$ 66,700	85%	$ 56,831	$0	$ 9,869	$ -	$ -	$ 9,869	$ -
1.7.507	HAMBLY AVE from 188m South of WILLIAMSON RD to QUEEN ST E	2021 - 2021	$486,665	$ -	$ 486,665	85%	$ 414,656	$0	$ 72,009	$ -	$ -	$ 72,009	$ -
1.7.508	LAKE SHORE BLVD E from WOODBINE AVE to 27m East of NORTHERN DANCER BLVD	2023 - 2024	$2,830,950	$ -	$ 2,830,950	85%	$ 2,412,073	$0	$ 418,877	$ -	$ -	$ 418,877	$ -
1.7.509	KEWBEACH AVE from WOODBINE AVE to 95m South of KENILWORTH AVE												
1.7.510	KENILWORTH AVE from 15m South of KEWBEACH AVE to MARTIN GOODMAN TRL												
1.7.511	WOODBINE AVE from LAKE SHORE BLVD E to MARTIN GOODMAN TRL												
1.7.512	KIPPENDAVIE AVE from 72m North of BULLER AVE to 42m South of KEWBEACH AVE	2023 - 2024	$4,084,233	$ -	$ 4,084,233	85%	$ 3,479,915	$0	$ 604,317	$ -	$ -	$ 604,317	$ -
1.7.513	WAVERLEY RD from KEWBEACH AVE to MARTIN GOODMAN TRL	2021 - 2021	$539,198	$ -	$ 539,198	85%	$ 459,416	$0	$ 79,782	$ -	$ -	$ 79,782	$ -
1.7.514	LEE AVE from ALFRESCO LWN to MARTIN GOODMAN TRL	2021 - 2021	$581,765	$ -	$ 581,765	85%	$ 495,685	$0	$ 86,080	$ -	$ -	$ 86,080	$ -
1.7.515	CRAVEN RD from GERRARD ST E to DUNDAS ST E												
1.7.516	QUEEN ST E from WOODWARD AVE to COXWELL AVE												
1.7.517	CRAVEN RD from DUNDAS ST E to QUEEN ST E												
1.7.518	CRAVEN RD from FAIRFORD AVE to GERRARD ST E												
1.7.519	RHODES AVE from DUNDAS ST E to QUEEN ST E												
1.7.520	QUEEN ST E from RHODES AVE to EASTERN AVE	2021 - 2022	$6,123,468	$ -	$ 6,123,468	85%	$ 5,217,418	$0	$ 906,050	$ -	$ -	$ 906,050	$ -
1.7.521	KERR RD from HERTLE AVE to HIGHFIELD RD	2020 - 2020	$258,990	$ -	$ 258,990	85%	$ 220,669	$0	$ 38,321	$ -	$ -	$ 38,321	$ -
1.7.522	EASTERN AVE from CONNAUGHT AVE to KNOX AVE												
1.7.523	EASTERN AVE from CONNAUGHT AVE to WOODFIELD RD	2018 - 2027	$2,927,535	$ -	$ 2,927,535	85%	$ 2,494,367	$0	$ 433,168	$ -	$ -	$ 433,168	$ -
1.7.524	QUEEN ST E from ALTON AVE to LAING ST												
1.7.525	ALTON AVE from LN N QUEEN E HASTINGS to QUEEN ST E												
1.7.526	LAING ST from QUEEN ST E to EASTERN AVE	2020 - 2020	$1,331,955	$ -	$ 1,331,955	85%	$ 1,134,874	$0	$ 197,081	$ -	$ -	$ 197,081	$ -
1.7.527	EARL GREY RD from RAVINA CRES to SHUDELL AVE												
1.7.528	HUNTER ST from CONDOR AVE to JONES AVE												
1.7.529	SHUDELL AVE from EARL GREY RD to CONDOR AVE												
1.7.530	RAVINA CRES from JONES AVE to EARL GREY RD	2020 - 2020	$2,496,620	$ -	$ 2,496,620	85%	$ 2,127,211	$0	$ 369,409	$ -	$ -	$ 369,409	$ -
1.7.531	FIRST AVE from LN E LOGAN N FIRST to 20m West of LOGAN AVE												
1.7.532	CARLAW AVE from 64 N OF DUNDAS ST E to DUNDAS ST E												
1.7.533	CARLAW AVE from GERRARD ST E to 64m South of GERRARD ST E												
1.7.534	CARLAW AVE from GERRARD ST E to DUNDAS ST E												
1.7.535	CARLAW AVE from 64m South of GERRARD ST E to 64 N OF DUNDAS ST E	2020 - 2020	$641,815	$ -	$ 641,815	85%	$ 546,850	$0	$ 94,965	$ -	$ -	$ 94,965	$ -
1.7.536	PAPE AVE from DUNDAS ST E to BRIGHTON AVE												
1.7.537	PAPE AVE from AUSTIN AVE to DUNDAS ST E	2020 - 2020	$1,048,595	$ -	$ 1,048,595	85%	$ 893,441	$0	$ 155,154	$ -	$ -	$ 155,154	$ -
1.7.538	JONES AVE from DUNDAS ST E to QUEEN ST E												
1.7.539	COADY AVE from 82m South of MALLON AVE to QUEEN ST E												
1.7.540	QUEEN ST E from BROOKLYN AVE to LESLIE ST												
1.7.541	LESLIE ST from QUEEN ST E to EASTERN AVE	2020 - 2020	$5,024,365	$ -	$ 5,024,365	85%	$ 4,280,942	$0	$ 743,423	$ -	$ -	$ 743,423	$ -
1.7.542	CARLAW AVE from 58m South of DUNDAS ST E to QUEEN ST E	2021 - 2021	$3,087,283	$ -	$ 3,087,283	85%	$ 2,630,477	$0	$ 456,805	$ -	$ -	$ 456,805	$ -

APPENDIX C.3
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
SANITARY SEWER SERVICES

	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.7	**PRIORITY LINEAR SANITARY CAPACITY PROJECTS CONTINUED**												
1.7.543	BOOTH AVE from EASTERN AVE to 50m North of LN 2 S EASTERN W LOGAN												
1.7.544	EMPIRE AVE from 62m South of GRAHAM PL to EASTERN AVE	2020 - 2020	$1,618,483	$ -	$ 1,618,483	85%	$ 1,379,006	$0	$ 239,476	$ -	$ -	$ 239,476	$ -
1.7.545	EASTERN AVE from SAULTER ST to BROADVIEW AVE												
1.7.546	SAULTER ST from QUEEN ST E to EASTERN AVE	2020 - 2020	$1,534,818	$ -	$ 1,534,818	85%	$ 1,307,720	$0	$ 227,097	$ -	$ -	$ 227,097	$ -
1.7.547	VICTORIA PARK AVE from MUSGRAVE ST to SWANWICK AVE												
1.7.548	QUEEN ST E from KINGSWOOD RD to NEVILLE PARK BLVD												
1.7.549	NEVILLE PARK BLVD from QUEEN ST E to 25m North of LAKE FRONT												
1.7.550	KINGSWOOD RD from BRACKEN AVE to ED EVANS LANE	2021 - 2021	$1,243,120	$ -	$ 1,243,120	85%	$ 1,059,184	$0	$ 183,936	$ -	$ -	$ 183,936	$ -
1.7.551	QUEEN ST E from KINGSWOOD RD to NEVILLE PARK BLVD												
1.7.552	NEVILLE PARK BLVD from QUEEN ST E to 25m North of LAKE FRONT												
1.7.553	KINGSWOOD RD from BRACKEN AVE to ED EVANS LANE	2021 - 2022	$2,473,440	$ -	$ 2,473,440	85%	$ 2,107,461	$0	$ 365,979	$ -	$ -	$ 365,979	$ -
1.7.554	AVALON BLVD from KINGSTON RD to HOLLIS AVE	2020 - 2020	$1,250,000	$ -	$ 1,250,000	85%	$ 1,065,046	$0	$ 184,954	$ -	$ -	$ 184,954	$ -
1.7.555	PINEGROVE AVE from BIRCHMOUNT RD to HIGHVIEW AVE (SC)												
1.7.556	S EDGELY AVE from PINEGROVE AVE to HIGHVIEW AVE (SC)												
1.7.557	AYLESWORTH AVE from PINEGROVE AVE to HIGHVIEW AVE (SC)												
1.7.558	BIRCHMOUNT RD from DANFORTH AVE to CN TRACKS												
1.7.559	LILLINGTON AVE from PINEGROVE AVE to HIGHVIEW AVE (SC)	2018 - 2027	$250,000	$ -	$ 250,000	85%	$ 213,009	$0	$ 36,991	$ -	$ -	$ 36,991	$ -
1.7.560	PRESTON ST from MALTA ST to CRAIGLEE DR												
1.7.561	CRAIGLEE DR from S BONNINGTON AVE to KENNEDY RD												
1.7.562	MALTA ST from PRESTON ST to KENNEDY RD												
1.7.563	KENNEDY RD from HIGHVIEW AVE (SC) to PARK ST												
1.7.564	HASLAM ST from MALTA ST to CRAIGLEE DR	2020 - 2020	$6,250,000	$ -	$ 6,250,000	85%	$ 5,325,228	$0	$ 924,772	$ -	$ -	$ 924,772	$ -
1.7.565	MCINTOSH ST from HIGHVIEW AVE (SC) to PARK ST	2018 - 2027	$250,000	$ -	$ 250,000	85%	$ 213,009	$0	$ 36,991	$ -	$ -	$ 36,991	$ -
1.7.566	CHINE DR from KINGSTON RD to ST CLAIR AVE E (SC)												
1.7.567	MONTVALE DR from CHINE DR to GIDLEY RD												
1.7.568	ST CLAIR AVE E (TO) from BRIMLEY RD to DANFORTH RD	2020 - 2020	$7,250,000	$ -	$ 7,250,000	85%	$ 6,177,264	$0	$ 1,072,736	$ -	$ -	$ 1,072,736	$ -
1.7.569	THORNCREST RD from THE WYND to KIPLING AVE												
1.7.570	THORNCREST RD from PHEASANT LANE to THE WYND												
1.7.571	THORNCREST RD from SIR WILLIAMS LANE to PHEASANT LANE												
1.7.572	GREAT OAK DR from KIPLING AVE to PIPPIN PL												
1.7.573	KIPLING AVE from RATHBURN RD to GREAT OAK DR												
1.7.574	KIPLING AVE from THORNCREST RD to RATHBURN RD	2018 - 2020	$7,065,250	$ -	$ 7,065,250	85%	$ 6,019,851	$0	$ 1,045,399	$ -	$ -	$ 1,045,399	$ -
	Subtotal: PRIORITY LINEAR SANITARY CAPACITY PROJECTS		**$1,649,575,700**	**$0**	**$1,649,575,700**		**$1,405,498,665**		**$ 244,077,035**			**$ 244,077,035**	**$ -**
	SUBTOTAL SANITARY PROJECTS TO 2041		**$5,754,566,852**	**$29,478,671**	**$5,725,088,181**		**$4,459,649,580**	**$0**	**$1,265,438,601**	**$0**	**$0**	**$1,262,581,509**	**$2,857,092**
	SUBTOTAL TO 2027		**$443,344,921**	**$24,557,243**	**$418,787,678**		**$273,262,578**		**$145,525,100**	**$15,520,000**	**$0**	**$130,005,100**	**$0**
	SUBTOTAL TO 2041		**$5,754,566,852**	**$29,478,671**	**$5,725,088,181**		**$4,459,649,580**		**$1,265,438,601**	**$0**	**$0**	**$1,262,581,509**	**$2,857,092**
	TOTAL ALL PROJECTS		**$6,197,911,773**	**$54,035,914**	**$6,143,875,858**		**$4,732,912,158**	**$0**	**$1,410,963,700**	**$15,520,000**	**$0**	**$1,392,586,608**	**$2,857,092**

SANITARY SEWER 2018-2027		
Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$92,295,789
10-Year Growth in Population in New Permits Issued		252,390
Unadjusted Development Charge Per Capita		**$365.69**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$37,709,311
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$268.97**
SANITARY SEWER 2018-2041		
Residential Development Charge Calculation		
Residential Share of 2018 - 2041 DC Eligible Costs	72%	$903,902,851
23-Year Growth in Population in New Permits Issued		540,750
Unadjusted Development Charge Per Capita		**$1,671.57**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2041 DC Eligible Costs	28%	$358,678,658
23-Year Growth in Employees in New Space		293,000
Unadjusted Development Charge Per Employee		**$1,224.16**

APPENDIX C.3
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SANITARY SEWER MANAGEMENT
RESIDENTIAL DEVELOPMENT CHARGE (2018-2027)
(in $000)

SANITARY 10-YEAR (RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.0	($4,974.0)	($11,516.3)	($12,682.6)	($14,087.6)	($12,942.3)	($8,782.2)	($6,581.1)	($4,205.2)	($2,180.8)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Sanitary 10-Year (Residential): Non Inflated	$15,015.6	$15,503.0	$10,425.5	$10,099.3	$7,706.9	$5,113.7	$7,107.9	$7,107.9	$7,107.9	$7,107.9	**$92,295.8**
- Sanitary 10-Year (Residential): Inflated	$15,015.6	$15,813.1	$10,846.7	$10,717.4	$8,342.2	$5,645.9	$8,004.7	$8,164.8	$8,328.1	$8,494.6	**$99,373.2**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$10,174.7	$9,712.1	$10,328.1	$10,028.8	$10,229.4	$10,434.0	$10,642.7	$10,855.5	$10,545.0	$10,755.9	**$103,706.2**
INTEREST											
- Interest on Opening Balance	$0.0	($273.6)	($633.4)	($697.5)	($774.8)	($711.8)	($483.0)	($362.0)	($231.3)	($119.9)	**($4,287.4)**
- Interest on In-year Transactions	($133.1)	($167.8)	($14.3)	($18.9)	$33.0	$83.8	$46.2	$47.1	$38.8	$39.6	**($45.7)**
TOTAL REVENUE	$10,041.6	$9,270.8	$9,680.4	$9,312.4	$9,487.6	$9,806.0	$10,205.8	$10,540.7	$10,352.5	$10,675.5	**$99,373.2**
CLOSING CASH BALANCE	($4,974.0)	($11,516.3)	($12,682.6)	($14,087.6)	($12,942.3)	($8,782.2)	($6,581.1)	($4,205.2)	($2,180.8)	$0.0	

2018 Adjusted Charge Per Capita	**$375.31**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.3
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SANITARY SEWER MANAGEMENT
RESIDENTIAL DEVELOPMENT CHARGE (2018-2041)
(in $000)

SANITARY TO 2041 (RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPENING CASH BALANCE	$70,192.9	$14,210.6	($29,197.0)	($89,254.8)	($139,860.0)	($190,216.6)	($224,635.4)	($257,342.4)	($270,167.6)	($285,581.6)	($293,604.9)	($277,413.8)	($265,936.8)
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS													
- Sanitary To 2041 (Residential): Non Inflated	$104,209.6	$86,188.7	$100,860.8	$85,872.9	$82,325.1	$65,082.7	$61,553.2	$42,828.0	$42,330.5	$35,550.8	$15,796.3	$15,796.3	$15,796.3
- Sanitary To 2041 (Residential): Inflated	$104,209.6	$87,912.4	$104,935.6	$91,129.1	$89,111.3	$71,856.5	$69,318.9	$49,195.9	$49,596.9	$42,486.6	$19,255.6	$19,640.8	$20,033.6
NEW RESIDENTIAL DEVELOPMENT													
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	23,980	21,150	21,150
REVENUE													
- DC Receipts: Inflated	$47,334.7	$45,182.5	$48,048.0	$46,655.8	$47,588.9	$48,540.7	$49,511.5	$50,501.8	$49,056.9	$50,038.1	$51,038.8	$45,915.8	$46,834.1
INTEREST													
- Interest on Opening Balance	$2,456.8	$497.4	($1,605.8)	($4,909.0)	($7,692.3)	($10,461.9)	($12,354.9)	($14,153.8)	($14,859.2)	($15,707.0)	($16,148.3)	($15,257.8)	($14,626.5)
- Interest on In-year Transactions	($1,564.1)	($1,175.1)	($1,564.4)	($1,223.0)	($1,141.9)	($641.2)	($544.7)	$22.9	($14.8)	$132.2	$556.2	$459.8	$469.0
TOTAL REVENUE	$48,227.3	$44,504.8	$44,877.8	$40,523.8	$38,754.8	$37,437.6	$36,611.9	$36,370.8	$34,182.8	$34,463.2	$35,446.7	$31,117.8	$32,676.6
CLOSING CASH BALANCE	$14,210.6	($29,197.0)	($89,254.8)	($139,860.0)	($190,216.6)	($224,635.4)	($257,342.4)	($270,167.6)	($285,581.6)	($293,604.9)	($277,413.8)	($265,936.8)	($253,293.8)

SANITARY TO 2041 (RESIDENTIAL)	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE	($253,293.8)	($239,410.0)	($224,206.3)	($207,599.0)	($189,499.6)	($169,814.3)	($142,619.5)	($113,198.4)	($81,413.8)	($47,120.8)	($10,166.3)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS												
- Sanitary To 2041 (Residential): Non Inflated	$15,796.3	$15,796.3	$15,796.3	$15,796.3	$15,796.3	$11,788.3	$11,788.3	$11,788.3	$11,788.3	$11,788.3	$11,788.3	**$903,902.9**
- Sanitary To 2041 (Residential): Inflated	$20,434.2	$20,842.9	$21,259.8	$21,685.0	$22,118.7	$16,836.6	$17,173.4	$17,516.8	$17,867.2	$18,224.5	$18,589.0	**$1,031,230.8**
NEW RESIDENTIAL DEVELOPMENT												
- Population Growth in New Permits Issued	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	10,580	**$541,150.0**
REVENUE												
- DC Receipts: Inflated	$47,770.8	$48,726.2	$49,700.7	$50,694.7	$51,708.6	$52,742.8	$53,797.7	$54,873.6	$55,971.1	$57,090.5	$29,129.9	**$1,178,454.2**
INTEREST												
- Interest on Opening Balance	($13,931.2)	($13,167.5)	($12,331.3)	($11,417.9)	($10,422.5)	($9,339.8)	($7,844.1)	($6,225.9)	($4,477.8)	($2,591.6)	($559.1)	**($217,131.3)**
- Interest on In-year Transactions	$478.4	$488.0	$497.7	$507.7	$517.8	$628.4	$640.9	$653.7	$666.8	$680.2	$184.5	**($285.1)**
TOTAL REVENUE	$34,318.0	$36,046.6	$37,867.1	$39,784.5	$41,804.0	$44,031.4	$46,594.5	$49,301.4	$52,160.1	$55,179.0	$28,755.2	**$961,037.9**
CLOSING CASH BALANCE	($239,410.0)	($224,206.3)	($207,599.0)	($189,499.6)	($169,814.3)	($142,619.5)	($113,198.4)	($81,413.8)	($47,120.8)	($10,166.3)	$0.0	

2018 Adjusted Charge Per Capita	**$1,746.02**

Allocation of Capital Program	
Residential Sector	71.6%
Non-Residential Sector	28.4%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX C.3
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SANITARY SEWER MANAGEMENT
NON-RESIDENTIAL DEVELOPMENT CHARGE (2018-2027)
(in $000)

SANITARY 10-YEAR (NON-RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.0	($2,308.5)	($4,998.8)	($5,670.7)	($6,242.1)	($5,771.1)	($4,067.6)	($3,163.6)	($2,187.3)	($1,134.3)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Sanitary 10-Year (Non-Residential): Non Inflated	$6,134.9	$6,334.1	$4,259.6	$4,126.3	$3,148.8	$2,089.3	$2,904.1	$2,904.1	$2,904.1	$2,904.1	**$37,709.3**
- Sanitary 10-Year (Non-Residential): Inflated	$6,134.9	$6,460.8	$4,431.6	$4,378.8	$3,408.4	$2,306.8	$3,270.5	$3,335.9	$3,402.6	$3,470.7	**$40,600.9**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$3,888.2	$3,966.0	$4,045.3	$4,126.2	$4,208.8	$4,292.9	$4,378.8	$4,466.4	$4,555.7	$4,646.8	**$42,575.1**
INTEREST											
- Interest on Opening Balance	$0.0	($127.0)	($274.9)	($311.9)	($343.3)	($317.4)	($223.7)	($174.0)	($120.3)	($62.4)	**($1,954.9)**
- Interest on In-year Transactions	($61.8)	($68.6)	($10.6)	($6.9)	$14.0	$34.8	$19.4	$19.8	$20.2	$20.6	**($19.3)**
TOTAL REVENUE	$3,826.5	$3,770.4	$3,759.8	$3,807.4	$3,879.4	$4,010.3	$4,174.5	$4,312.1	$4,455.6	$4,605.0	**$40,600.9**
CLOSING CASH BALANCE	($2,308.5)	($4,998.8)	($5,670.7)	($6,242.1)	($5,771.1)	($4,067.6)	($3,163.6)	($2,187.3)	($1,134.3)	$0.0	

2018 Adjusted Charge Per Employee	**$277.33**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX C.3
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SANITARY SEWER MANAGEMENT
NON-RESIDENTIAL DEVELOPMENT CHARGE (2018-2041)
(in $000)

SANITARYTO 2041 (NON-RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPENING CASH BALANCE	$17,548.2	($5,157.4)	($21,732.7)	($45,769.3)	($65,099.9)	($84,264.1)	($97,032.1)	($109,044.5)	($113,100.3)	($117,105.0)	($118,014.3)	($114,266.1)	($110,106.9)
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS													
- Sanitaryto 2041 (Non-Residential): Non Inflated	$41,351.5	$34,200.6	$40,022.7	$34,075.3	$32,667.5	$25,825.5	$24,425.0	$16,994.6	$16,797.2	$14,107.0	$6,268.2	$6,268.2	$6,268.2
- Sanitaryto 2041 (Non-Residential): Inflated	$41,351.5	$34,884.6	$41,639.6	$36,161.0	$35,360.4	$28,513.5	$27,506.5	$19,521.5	$19,680.6	$16,859.1	$7,640.9	$7,793.7	$7,949.5
NEW NON-RESIDENTIAL DEVELOPMENT													
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	10,914	10,914	10,914
REVENUE													
- DC Receipts: Inflated	$18,655.9	$19,029.0	$19,409.6	$19,797.8	$20,193.7	$20,597.6	$21,009.6	$21,429.7	$21,858.3	$22,295.5	$17,703.7	$18,057.8	$18,419.0
INTEREST													
- Interest on Opening Balance	$614.2	($283.7)	($1,195.3)	($2,517.3)	($3,580.5)	($4,634.5)	($5,336.8)	($5,997.4)	($6,220.5)	($6,440.8)	($6,490.8)	($6,284.6)	($6,055.9)
- Interest on In-year Transactions	($624.1)	($436.0)	($611.3)	($450.0)	($417.1)	($217.7)	($178.7)	$33.4	$38.1	$95.1	$176.1	$179.6	$183.2
TOTAL REVENUE	$18,645.9	$18,309.3	$17,603.0	$16,830.5	$16,196.2	$15,745.4	$15,494.1	$15,465.7	$15,675.9	$15,949.9	$11,389.0	$11,952.8	$12,546.3
CLOSING CASH BALANCE	($5,157.4)	($21,732.7)	($45,769.3)	($65,099.9)	($84,264.1)	($97,032.1)	($109,044.5)	($113,100.3)	($117,105.0)	($118,014.3)	($114,266.1)	($110,106.9)	($105,510.2)

SANITARYTO 2041 (NON-RESIDENTIAL)	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE	($105,510.2)	($100,447.6)	($94,889.2)	($88,803.4)	($82,156.9)	($74,914.1)	($64,726.5)	($53,692.5)	($41,759.6)	($28,872.8)	($14,973.5)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS												
- Sanitaryto 2041 (Non-Residential): Non Inflated	$6,268.2	$6,268.2	$6,268.2	$6,268.2	$6,268.2	$4,677.7	$4,677.7	$4,677.7	$4,677.7	$4,677.7	$4,677.7	**$358,678.7**
- Sanitaryto 2041 (Non-Residential): Inflated	$8,108.5	$8,270.7	$8,436.1	$8,604.8	$8,776.9	$6,681.0	$6,814.6	$6,950.9	$7,089.9	$7,231.7	$7,376.3	**$409,203.8**
NEW NON-RESIDENTIAL DEVELOPMENT												
- Employees in New Space	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	**293,000**
REVENUE												
- DC Receipts: Inflated	$18,787.3	$19,163.1	$19,546.3	$19,937.3	$20,336.0	$20,742.7	$21,157.6	$21,580.7	$22,012.4	$22,452.6	$22,901.7	**$487,075.0**
INTEREST												
- Interest on Opening Balance	($5,803.1)	($5,524.6)	($5,218.9)	($4,884.2)	($4,518.6)	($4,120.3)	($3,560.0)	($2,953.1)	($2,296.8)	($1,588.0)	($823.5)	**($95,714.9)**
- Interest on In-year Transactions	$186.9	$190.6	$194.4	$198.3	$202.3	$246.1	$251.0	$256.0	$261.1	$266.4	$271.7	**$295.5**
TOTAL REVENUE	$13,171.2	$13,829.1	$14,521.9	$15,251.4	$16,019.7	$16,868.5	$17,848.6	$18,883.7	$19,976.7	$21,131.0	$22,349.8	**$391,655.6**
CLOSING CASH BALANCE	($100,447.6)	($94,889.2)	($88,803.4)	($82,156.9)	($74,914.1)	($64,726.5)	($53,692.5)	($41,759.6)	($28,872.8)	($14,973.5)	($0.0)	

2018 Adjusted Charge Per Employee	**$1,330.66**

Allocation of Capital Program	
Residential Sector	71.6%
Non-Residential Sector	28.4%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix C.4

Storm Water

HEMSON

Appendix C.4

Storm Water Management
Technical Appendix

Toronto Water is responsible for the emplacement and operation of the City's storm drainage infrastructure. Toronto Water is also responsible for the City's Water and Sanitary Sewer facilities which are discussed in Appendix C.2 and C.3, respectively.

This appendix provides an outline of the development-related capital forecast for Storm Water Management over the 2018-2041 benefitting period, the calculation of the "unadjusted" DC and the calculated charge after cash flow considerations. Unlike the other engineered services, all projects identified in the Storm Water Management capital forecast will benefit growth occurring out to 2041. As such, no projects have been identified in the 2018-2027 planning period. The cost, quantum and timing of the projects identified in the forecast have been provided by Toronto Water and Waterfront Toronto staff and informed based on the current and proposed capital budget, previous DC studies, and other long-range planning documents.

Storm Water Management facilities included in the DC capital forecast are required to achieve health and safety standards as identified in relevant legislation including Provincial and Conservation Authority regulations, the Planning Act, the Ontario Water Resources Act and the Municipal Act. As such, in accordance with section 4(3) of O.Reg. 82/98, the ten-year historical service level does not apply.

The following discusses the individual components included in the Storm Water Service category. The analysis is set out in the tables which follow. The tables include:

Table 1	2018-2041 Development-Related Capital forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 2	Cash Flow Analysis

A. Development-Related Capital Forecast

The development-related capital projects that will benefit development occurring over the 2018-2041 period is $1,624.97 million, as shown in Table 1. The projects include the remaining growth shares of prior projects ($4.47 million), and wet weather flow and flood protection ($1,620.51 million).

B. Calculation Of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

Approximately $621.00 million in senior government grants is anticipated for a variety of projects. This amount is netted off the DC calculation.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development. Generally speaking, shares have been deducted from the net cost of projects that account for portions of the project that relate to state-of-good-repair or the replacement or reconstruction of existing facilities. Those projects that are completely new are deemed to be entirely growth-related and no replacement shares have been deducted from the net cost.

For the majority of infrastructure upgrades or replacements that were deemed to provide a benefit to the existing community, shares of current future population and employment growth over the 2018-2041 planning periods were used. In total, $247.55 million is identified as the replacement and benefit to existing share in both the 2018-2041 planning horizon.

3. Legislated Ten per cent Reduction

As this service is identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs is not required.

4. Prior Reserves

Prior reserve funding relates to portions of projects which have had DCs collected and applied against a portion of the DC eligible project costs. These

amounts are removed from the capital forecast and not brought forward into the development charge calculation.

In total, $7.20 million in prior growth shares relate to DCs collected prior to 2018 that have been applied against the Storm Water Quality Management project.

5. Available DC Reserve Funds

As of December 31, 2016, the reserve fund balance for Storm Water was $21.18 million. This amount has been removed from the development charge calculation and accounted for the in the cash flow analysis.

6. Post-Period Benefit

Approximately $30.52 million in post-period DC shares is identified and removed from the DC eligible costs.

7. 2018-2041 DC Eligible Development Related Costs

After the statutory deductions, the development charge eligible costs that are recovered in-period 2018-2041 is reduced to $718.69 million.

C. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

In the 2018-2041 planning period, discounted development-related costs have been allocated 72 per cent to residential and 28 per cent to non-residential development. These percentages are based on 23 year (2018-2041) shares of net population and employment growth.

The $514.53 million identified for 2018-2041 in residential development-related net capital costs is divided by the population forecast from new permits issued units of 540,750, yielding a per capita charge of $951.50 before cash flow adjustments. The non-residential unadjusted charge per employee is calculated by taking the $204.17 million allocated to the non-residential sector and dividing it by 293,600 employees. This yields an unadjusted charge of $696.82 per employee.

D. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of DCs. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the DC rate required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate DC rates reflecting borrowings and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 2 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee DCs. After cash flow considerations, the residential calculated charge increases to $1,006.96 per capita. The non-residential charge after cash flowing increases to $751.08 per employee.

The following table summarizes the calculation of the Storm Water Management DC.

STORM WATER SERVICES					
2018-2041		Unadjusted		**Adjusted**	
Development-Related Capital Program		Development Charge		**Development Charge**	
Total	Net DC Recoverable	$/capita	$/employee	**$/capita**	**$/employee**
$1,624,972,655	$718,694,527	$951.50	$696.82	**$1,006.96**	**$751.08**

APPENDIX C.4
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
STORM WATER MANAGEMENT SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.0 STORM WATER MANAGEMENT (2041)												
1.1 Prior Projects												
1.1.1 SWM CONVEYANCE 2014	2018 - 2018	$ 647,781	$ -	$ 647,781	0%	$ -	$ -	$ 647,781	$ -	$ -	$ 647,781	$ -
1.1.2 EMERY CREEK POND	2018 - 2018	$ 457,742	$ -	$ 457,742	0%	$ -	$ -	$ 457,742	$ -	$ -	$ 457,742	$ -
1.1.3 EARL BALES SWM FACILITY - PHASE 2	2018 - 2018	$ 281,401	$ -	$ 281,401	0%	$ -	$ -	$ 281,401	$ -	$ -	$ 281,401	$ -
1.1.4 TRCA CAPITAL FUNDING	2018 - 2018	$ 2,761,672	$ -	$ 2,761,672	0%	$ -	$ -	$ 2,761,672	$ -	$ -	$ 2,761,672	$ -
1.1.5 2907_EARL BALES PARK STORM WATER MANAGEM	2018 - 2018	$ 318,406	$ -	$ 318,406	0%	$ -	$ -	$ 318,406	$ -	$ -	$ 318,406	$ -
Subtotal Prior Projects		**$4,467,002**	**$0**	**$4,467,002**		**$0**	**$0**	**$4,467,002**	**$0**	**$0**	**$4,467,002**	**$0**
1.2 Wet Weather Flow & Flood Protection												
1.2.1 EMERY CREEK POND	2018 - 2020	$ 5,259,189	$ -	$ 5,259,189	85%	$ 4,481,021	$ -	$ 778,168	$ -	$ -	$ 778,168	$ -
1.2.2 YR03 D1 END OF PIPE	2018 - 2020	$ 3,000	$ -	$ 3,000	85%	$ 2,556	$ -	$ 444	$ -	$ -	$ 444	$ -
1.2.3 DON VALLEY SWM	2023 - 2026	$ 3,960,000	$ -	$ 3,960,000	85%	$ 3,374,064	$ -	$ 585,936	$ -	$ -	$ 585,936	$ -
1.2.4 COATSWORTH CUT WETLAND	2025 - 2027	$ 10,260,000	$ -	$ 10,260,000	85%	$ 8,741,894	$ -	$ 1,518,106	$ -	$ -	$ 1,518,106	$ -
1.2.5 Scarborough Waterfront Construction	2024 - 2027	$ 47,950,000	$ -	$ 47,950,000	85%	$ 40,855,149	$ -	$ 7,094,851	$ -	$ -	$ 7,094,851	$ -
1.2.6 EARL BALES PARK SWM FACILITY - PHASE 2	2018 - 2019	$ 1,952,000	$ -	$ 1,952,000	85%	$ 1,663,175	$ -	$ 288,825	$ -	$ -	$ 288,825	$ -
1.2.7 Bonar Creek SWMF Construction	2018 - 2022	$ 21,050,000	$ -	$ 21,050,000	85%	$ 17,935,368	$ -	$ 3,114,632	$ -	$ -	$ 3,114,632	$ -
1.2.8 HUMBER BAY POND (ETOBICOKE)	2018 - 2020	$ 700,000	$ -	$ 700,000	85%	$ 596,426	$ -	$ 103,574	$ -	$ -	$ 103,574	$ -
1.2.9 Etobicoke Waterfront Construction	2024 - 2041	$ 126,320,000	$ -	$ 126,320,000	85%	$ 107,629,248	$ -	$ 18,690,752	$ -	$ -	$ 18,690,752	$ -
1.2.10 SWM INA/EA	2018 - 2022	$ 3,269,000	$ -	$ 3,269,000	85%	$ 2,785,307	$ -	$ 483,693	$ -	$ -	$ 483,693	$ -
1.2.11 PUBLIC EDUCATION	2018 - 2018	$ 1,220,000	$ -	$ 1,220,000	85%	$ 1,039,485	$ -	$ 180,515	$ -	$ -	$ 180,515	$ -
1.2.12 WWFMP IMPLEMENTATION - DESIGN	2018 - 2020	$ 2,284,000	$ -	$ 2,284,000	85%	$ 1,946,051	$ -	$ 337,949	$ -	$ -	$ 337,949	$ -
1.2.13 SWM CONVEYANCE 2012	2018 - 2019	$ 76,000	$ -	$ 76,000	85%	$ 64,755	$ -	$ 11,245	$ -	$ -	$ 11,245	$ -
1.2.14 SWM CONVEYANCE 2014	2018 - 2018	$ 44,000	$ -	$ 44,000	85%	$ 37,490	$ -	$ 6,510	$ -	$ -	$ 6,510	$ -
1.2.15 SWM CONVEYANCE 2015	2018 - 2019	$ 1,041,000	$ -	$ 1,041,000	85%	$ 886,970	$ -	$ 154,030	$ -	$ -	$ 154,030	$ -
1.2.16 SWM CONVEYANCE 2017	2018 - 2021	$ 7,531,000	$ -	$ 7,531,000	85%	$ 6,416,687	$ -	$ 1,114,313	$ -	$ -	$ 1,114,313	$ -
1.2.17 GREEN STREETS	2018 - 2022	$ 2,595,000	$ -	$ 2,595,000	85%	$ 2,211,035	$ -	$ 383,965	$ -	$ -	$ 383,965	$ -
1.2.18 WATERFRONT MODELLING STUDIES	2019 - 2025	$ 565,000	$ -	$ 565,000	85%	$ 481,401	$ -	$ 83,599	$ -	$ -	$ 83,599	$ -
1.2.19 10YR WWFMMP PUBLIC EDUCATION	2019 - 2026	$ 4,880,000	$ -	$ 4,880,000	85%	$ 4,157,938	$ -	$ 722,062	$ -	$ -	$ 722,062	$ -
1.2.20 10YR WWFMMP IMPLEMENTATION	2018 - 2027	$ 7,400,000	$ -	$ 7,400,000	85%	$ 6,305,070	$ -	$ 1,094,930	$ -	$ -	$ 1,094,930	$ -
1.2.21 WESTERN BEACHES RETROFIT	2018 - 2022	$ 19,329,797	$ -	$ 19,329,797	85%	$ 16,469,692	$ -	$ 2,860,105	$ -	$ -	$ 2,860,105	$ -
1.2.22 STUDIES, EAs, MASTER PLANS	2018 - 2022	$ 6,949,000	$ -	$ 6,949,000	85%	$ 5,920,801	$ -	$ 1,028,199	$ -	$ -	$ 1,028,199	$ -
1.2.23 STUDY, EA, MASTER PLAN UPDATES - FUTURE	2022 - 2026	$ 2,500,000	$ -	$ 2,500,000	85%	$ 2,130,091	$ -	$ 369,909	$ -	$ -	$ 369,909	$ -
1.2.24 TORONTO WATER TRANSFER TO TRCA CAPITAL	2018 - 2018	$ 8,657,000	$ -	$ 8,657,000	85%	$ 7,376,080	$ -	$ 1,280,920	$ -	$ -	$ 1,280,920	$ -
1.2.25 TRCA - SCARBOROUGH WATERFRONT TRAIL EA	2018 - 2018	$ 2,099,064	$ -	$ 2,099,064	85%	$ 1,788,479	$ -	$ 310,585	$ -	$ -	$ 310,585	$ -
1.2.26 TRCA - SCARBOROUGH WATERFRONT WEST EA	2018 - 2019	$ 2,650,000	$ -	$ 2,650,000	85%	$ 2,257,897	$ -	$ 392,103	$ -	$ -	$ 392,103	$ -

APPENDIX C.4
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
STORM WATER MANAGEMENT SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 0% Reduction	Total Development Related Costs	Development Related Costs: Prior Reserves	Development Related Costs: Available DC Reserves	Development Related Costs: In-Period Costs	Development Related Costs: Post
1.2.27 Flood Protection Landform & Related Infrastructure (WDL)	2018 - 2018	$ 122,515,785	$ 120,395,844	$ 2,119,941	0%	$ -	$ -	$ 2,119,941	$ -	$ -	$ 2,119,941	$ -
1.2.28 Storm water Quality Management (EBF/WDL/Keating)	2018 - 2021	$ 79,700,000	$ 42,725,132	$ 36,974,868	0%	$ -	$ -	$ 36,974,868	$ 7,200,000	$ -	$ 29,774,868	$ -
1.2.29 Dockwall Upgrades: Parl. Slip East Side	2018 - 2022	$ 2,520,000	$ -	$ 2,520,000	0%	$ -	$ -	$ 2,520,000	$ -	$ -	$ 2,520,000	$ -
1.2.30 Broadview and Eastern Flood Proteciton	2019 - 2022	$ 1,800,000	$ -	$ 1,800,000	0%	$ -	$ -	$ 1,800,000	$ -	$ -	$ 1,800,000	$ -
1.2.31 Cherry Street Stormwater and Lake Filling (Essroc Quay)	2018 - 2020	$ 64,149,316	$ 48,111,987	$ 16,037,329	0%	$ -	$ -	$ 16,037,329	$ -	$ -	$ 16,037,329	$ -
1.2.32 Polson Slip Naturalization	2018 - 2020	$ 59,414,189	$ 36,896,795	$ 22,517,394	0%	$ -	$ -	$ 22,517,394	$ -	$ -	$ 22,517,394	$ -
1.2.33 River Valley System	2018 - 2021	$ 225,184,269	$ 139,841,643	$ 85,342,626	0%	$ -	$ -	$ 85,342,626	$ -	$ -	$ 85,342,626	$ -
1.2.34 Don Greenway (Spillway & Wetland)	2018 - 2022	$ 229,393,320	$ 142,455,505	$ 86,937,815	0%	$ -	$ -	$ 86,937,815	$ -	$ -	$ 86,937,815	$ -
1.2.35 First Gulf/Unilever FPL	2018 - 2022	$ 4,494,975	$ 2,791,424	$ 1,703,551	0%	$ -	$ -	$ 1,703,551	$ -	$ -	$ 1,703,551	$ -
1.2.36 Sediment and Debris Management Area	2018 - 2021	$ 72,573,060	$ 45,068,583	$ 27,504,477	0%	$ -	$ -	$ 27,504,477	$ -	$ -	$ 27,504,477	$ -
1.2.37 Flow Control Weirs	2018 - 2023	$ 34,067,076	$ 21,155,989	$ 12,911,087	0%	$ -	$ -	$ 12,911,087	$ -	$ -	$ 12,911,087	$ -
1.2.38 Eastern Avenue Flood Protection	2018 - 2022	$ 4,120,030	$ 2,558,579	$ 1,561,451	0%	$ -	$ -	$ 1,561,451	$ -	$ -	$ 1,561,451	$ -
1.2.39 Keating Channel Modifications	2018 - 2023	$ 30,593,017	$ 18,998,564	$ 11,594,453	0%	$ -	$ -	$ 11,594,453	$ -	$ -	$ 11,594,453	$ -
1.2.40 Unilever Precinct Site Wide Servicing (storm)	2018 - 2025	$ 7,270,490	$ -	$ 7,270,490	0%	$ -	$ -	$ 7,270,490	$ -	$ -	$ 7,270,490	$ -
1.2.41 South of Eastern SWM	2026 - 2035	$ 635,727	$ -	$ 635,727	0%	$ -	$ -	$ 635,727	$ -	$ -	$ 635,727	$ -
1.2.42 Commissioners Street Open Channel (Don Roadway to Broadview)	2026 - 2035	$ 8,361,829	$ -	$ 8,361,829	0%	$ -	$ -	$ 8,361,829	$ -	$ -	$ 8,361,829	$ -
1.2.43 Commissioners Street Open Channel (Broadview to Carlaw)	2026 - 2035	$ 9,859,170	$ -	$ 9,859,170	0%	$ -	$ -	$ 9,859,170	$ -	$ -	$ 9,859,170	$ -
1.2.44 Turning Basin Outlets	2026 - 2035	$ 4,746,000	$ -	$ 4,746,000	0%	$ -	$ -	$ 4,746,000	$ -	$ -	$ 4,746,000	$ -
1.2.45 Turning Basin Pumping Station	2026 - 2035	$ 18,939,704	$ -	$ 18,939,704	0%	$ -	$ -	$ 18,939,704	$ -	$ -	$ 18,939,704	$ -
1.2.46 Turning Basin SWQMF	2026 - 2035	$ 108,050,600	$ -	$ 108,050,600	0%	$ -	$ -	$ 108,050,600	$ -	$ -	$ 108,050,600	$ -
1.2.47 SWQTF Enabling Infrastructure	2026 - 2035	$ 22,965,261	$ -	$ 22,965,261	0%	$ -	$ -	$ 22,965,261	$ -	$ -	$ 22,965,261	$ -
1.2.48 McCleary District Site Wide Servicing	2026 - 2035	$ 6,804,775	$ -	$ 6,804,775	0%	$ -	$ -	$ 6,804,775	$ -	$ -	$ 6,804,775	$ -
1.2.49 Media City Site Wide Servicing	2026 - 2035	$ 8,464,091	$ -	$ 8,464,091	0%	$ -	$ -	$ 8,464,091	$ -	$ -	$ 8,464,091	$ -
1.2.50 Turning Basin District Site Wide Servicing	Post -	$ 27,703,574	$ -	$ 27,703,574	0%	$ -	$ -	$ 27,703,574	$ -	$ -	$ -	$ 27,703,574
1.2.51 Leslie Street Open Channel (Lake Shore to Commissioners)	Post -	$ 2,820,382	$ -	$ 2,820,382	0%	$ -	$ -	$ 2,820,382	$ -	$ -	$ -	$ 2,820,382
1.2.52 East Port Site Wide Servicing (Block 7 and 8)	2036 - 2041	$ 8,125,468	$ -	$ 8,125,468	0%	$ -	$ -	$ 8,125,468	$ -	$ -	$ 8,125,468	$ -
1.2.53 Commissioners Street Open Channel (Carlaw to Leslie)	2026 - 2035	$ 15,221,071	$ -	$ 15,221,071	0%	$ -	$ -	$ 15,221,071	$ -	$ -	$ 15,221,071	$ -
1.2.54 Leslie/Unwin Open Channel	2026 - 2035	$ 39,209,498	$ -	$ 39,209,498	0%	$ -	$ -	$ 39,209,498	$ -	$ -	$ 39,209,498	$ -
1.2.55 Don Greenway SWQMF	2026 - 2035	$ 62,223,728	$ -	$ 62,223,728	0%	$ -	$ -	$ 62,223,728	$ -	$ -	$ 62,223,728	$ -
1.2.56 Don Greenway Outlets	2026 - 2035	$ 1,568,000	$ -	$ 1,568,000	0%	$ -	$ -	$ 1,568,000	$ -	$ -	$ 1,568,000	$ -
1.2.57 Don Greenway Pumping Station	2026 - 2035	$ 8,535,408	$ -	$ 8,535,408	0%	$ -	$ -	$ 8,535,408	$ -	$ -	$ 8,535,408	$ -
1.2.58 South Ship Channel Site Wide SWM Servicing	2026 - 2035	$ 12,931,791	$ -	$ 12,931,791	0%	$ -	$ -	$ 12,931,791	$ -	$ -	$ 12,931,791	$ -
1.2.59 Villiers Island - Stormwater Management Facility	2026 - 2035	$ 25,000,000	$ -	$ 25,000,000	0%	$ -	$ -	$ 25,000,000	$ -	$ -	$ 25,000,000	$ -
Wet Weather Flow & Flood Protection		**$1,620,505,653**	**$621,000,044**	**$999,505,609**		**$247,554,129**	**$0**	**$751,951,481**	**$7,200,000**	**$0**	**$714,227,526**	**$30,523,955**
TOTAL STORM WATER MANAGEMENT TO 2041		**$1,624,972,655**	**$621,000,044**	**$1,003,972,611**		**$247,554,129**	**$0**	**$756,418,482**	**$7,200,000**	**$0**	**$718,694,527**	**$30,523,955**

STORM WATER MANAGEMENT 2018-2041		
Residential Development Charge Calculation		
Residential Share of 2018 - 2041 DC Eligible Costs	72%	$514,525,223
23-Year Growth in Population in New Permits Issued		540,750
Unadjusted Development Charge Per Capita		**$951.50**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2041 DC Eligible Costs	28%	$204,169,304
23-Year Growth in Employees in New Space		293,000
Unadjusted Development Charge Per Employee		**$696.82**

APPENDIX C.4
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
STORM WATER MANAGEMENT
RESIDENTIAL DEVELOPMENT CHARGE (2018-2041)
(in $000)

STORM TO 2041 (RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPENING CASH BALANCE	$16,943.2	($15,618.3)	($46,268.7)	($77,714.4)	($102,512.2)	($100,605.3)	($82,017.7)	($60,881.8)	($38,493.9)	($45,231.9)	($52,159.8)	($57,415.0)	($66,647.7)
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS													
- Storm To 2041 (Residential): Non Inflated	$59,565.8	$53,972.2	$53,669.2	$44,177.4	$18,504.6	$3,884.0	$2,973.2	$3,335.5	$27,985.2	$27,762.7	$26,052.2	$26,052.2	$26,052.2
- Storm To 2041 (Residential): Inflated	$59,565.8	$55,051.6	$55,837.5	$46,881.4	$20,030.0	$4,288.3	$3,348.4	$3,831.5	$32,789.1	$33,179.0	$31,757.5	$32,392.7	$33,040.5
NEW RESIDENTIAL DEVELOPMENT													
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	23,980	21,150	21,150
REVENUE													
- DC Receipts: Inflated	$27,298.7	$26,057.5	$27,710.1	$26,907.2	$27,445.3	$27,994.2	$28,554.1	$29,125.2	$28,291.9	$28,857.8	$29,434.9	$26,480.4	$27,010.0
INTEREST													
- Interest on Opening Balance	$593.0	($859.0)	($2,544.8)	($4,274.3)	($5,638.2)	($5,533.3)	($4,511.0)	($3,348.5)	($2,117.2)	($2,487.8)	($2,868.8)	($3,157.8)	($3,665.6)
- Interest on In-year Transactions	($887.3)	($797.3)	($773.5)	($549.3)	$129.8	$414.9	$441.1	$442.6	($123.7)	($118.8)	($63.9)	($162.6)	($165.8)
TOTAL REVENUE	$27,004.3	$24,401.2	$24,391.8	$22,083.6	$21,936.9	$22,875.8	$24,484.3	$26,219.4	$26,051.1	$26,251.2	$26,502.3	$23,160.0	$23,178.5
CLOSING CASH BALANCE	($15,618.3)	($46,268.7)	($77,714.4)	($102,512.2)	($100,605.3)	($82,017.7)	($60,881.8)	($38,493.9)	($45,231.9)	($52,159.8)	($57,415.0)	($66,647.7)	($76,509.7)

STORM TO 2041 (RESIDENTIAL)	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE	($76,509.7)	($87,038.0)	($98,271.8)	($110,252.4)	($123,023.4)	($136,631.0)	($115,685.0)	($93,017.8)	($68,523.2)	($42,089.3)	($13,597.5)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS												
- Storm To 2041 (Residential): Non Inflated	$26,052.2	$26,052.2	$26,052.2	$26,052.2	$26,052.2	$1,712.9	$1,712.9	$1,712.9	$1,712.9	$1,712.9	$1,712.9	**$514,525.2**
- Storm To 2041 (Residential): Inflated	$33,701.3	$34,375.4	$35,062.9	$35,764.1	$36,479.4	$2,446.5	$2,495.4	$2,545.3	$2,596.2	$2,648.1	$2,701.1	**$602,808.9**
NEW RESIDENTIAL DEVELOPMENT												
- Population Growth in New Permits Issued	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	21,150	10,580	**$541,150.0**
REVENUE												
- DC Receipts: Inflated	$27,550.2	$28,101.2	$28,663.2	$29,236.5	$29,821.2	$30,417.6	$31,026.0	$31,646.5	$32,279.5	$32,925.0	$16,799.7	**$679,634.2**
INTEREST												
- Interest on Opening Balance	($4,208.0)	($4,787.1)	($5,404.9)	($6,063.9)	($6,766.3)	($7,514.7)	($6,362.7)	($5,116.0)	($3,768.8)	($2,314.9)	($747.9)	**($93,468.3)**
- Interest on In-year Transactions	($169.2)	($172.5)	($176.0)	($179.5)	($183.1)	$489.5	$499.3	$509.3	$519.5	$529.8	$246.7	**($300.1)**
TOTAL REVENUE	$23,173.0	$23,141.6	$23,082.3	$22,993.1	$22,871.8	$23,392.4	$25,162.6	$27,039.8	$29,030.1	$31,140.0	$16,298.6	**$585,865.8**
CLOSING CASH BALANCE	($87,038.0)	($98,271.8)	($110,252.4)	($123,023.4)	($136,631.0)	($115,685.0)	($93,017.8)	($68,523.2)	($42,089.3)	($13,597.5)	($0.0)	

2018 Adjusted Charge Per Capita	**$1,006.96**

Allocation of Capital Program	
Residential Sector	71.6%
Non-Residential Sector	28.4%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX C.4
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
STORM WATER MANAGEMENT
NON-RESIDENTIAL DEVELOPMENT CHARGE (2018-2041)
(in $000)

STORM TO 2041 (NON-RESIDENTIAL)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPENING CASH BALANCE	$4,235.8	($9,082.7)	($20,991.9)	($33,656.0)	($43,139.8)	($42,002.1)	($34,214.1)	($25,381.6)	($16,017.1)	($17,590.0)	($19,154.8)	($22,889.1)	($26,882.4)
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS													
- Storm To 2041 (Non-Residential): Non Inflated	$23,636.4	$21,416.7	$21,296.6	$17,530.1	$7,342.8	$1,541.2	$1,179.8	$1,323.6	$11,104.8	$11,016.6	$10,337.8	$10,337.8	$10,337.8
- Storm To 2041 (Non-Residential): Inflated	$23,636.4	$21,845.1	$22,156.9	$18,603.1	$7,948.1	$1,701.6	$1,328.7	$1,520.4	$13,011.1	$13,165.8	$12,601.7	$12,853.8	$13,110.8
NEW NON-RESIDENTIAL DEVELOPMENT													
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	10,914	10,914	10,914
REVENUE													
- DC Receipts: Inflated	$10,530.1	$10,740.7	$10,955.5	$11,174.6	$11,398.1	$11,626.1	$11,858.6	$12,095.8	$12,337.7	$12,584.4	$9,992.7	$10,192.5	$10,396.4
INTEREST													
- Interest on Opening Balance	$148.3	($499.5)	($1,154.6)	($1,851.1)	($2,372.7)	($2,310.1)	($1,881.8)	($1,396.0)	($880.9)	($967.4)	($1,053.5)	($1,258.9)	($1,478.5)
- Interest on In-year Transactions	($360.4)	($305.4)	($308.0)	($204.3)	$60.4	$173.7	$184.3	$185.1	($18.5)	($16.0)	($71.7)	($73.2)	($74.6)
TOTAL REVENUE	$10,317.9	$9,935.8	$9,492.9	$9,119.3	$9,085.8	$9,489.6	$10,161.1	$10,884.9	$11,438.2	$11,601.0	$8,867.4	$8,860.4	$8,843.2
CLOSING CASH BALANCE	($9,082.7)	($20,991.9)	($33,656.0)	($43,139.8)	($42,002.1)	($34,214.1)	($25,381.6)	($16,017.1)	($17,590.0)	($19,154.8)	($22,889.1)	($26,882.4)	($31,150.1)

STORM TO 2041 (NON-RESIDENTIAL)	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	TOTAL
OPENING CASH BALANCE	($31,150.1)	($35,708.2)	($40,574.0)	($45,765.4)	($51,301.5)	($57,202.5)	($49,423.5)	($40,998.2)	($31,886.6)	($22,046.5)	($11,433.4)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS												
- Storm To 2041 (Non-Residential): Non Inflated	$10,337.8	$10,337.8	$10,337.8	$10,337.8	$10,337.8	$679.7	$679.7	$679.7	$679.7	$679.7	$679.7	**$204,169.3**
- Storm To 2041 (Non-Residential): Inflated	$13,373.1	$13,640.5	$13,913.3	$14,191.6	$14,475.4	$970.8	$990.2	$1,010.0	$1,030.2	$1,050.8	$1,071.8	**$239,201.3**
NEW NON-RESIDENTIAL DEVELOPMENT												
- Employees in New Space	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	10,914	**293,000**
REVENUE												
- DC Receipts: Inflated	$10,604.3	$10,816.4	$11,032.7	$11,253.4	$11,478.4	$11,708.0	$11,942.2	$12,181.0	$12,424.6	$12,673.1	$12,926.6	**$274,924.0**
INTEREST												
- Interest on Opening Balance	($1,713.3)	($1,964.0)	($2,231.6)	($2,517.1)	($2,821.6)	($3,146.1)	($2,718.3)	($2,254.9)	($1,753.8)	($1,212.6)	($628.8)	**($39,918.8)**
- Interest on In-year Transactions	($76.1)	($77.7)	($79.2)	($80.8)	($82.4)	$187.9	$191.7	$195.5	$199.4	$203.4	$207.5	**($39.7)**
TOTAL REVENUE	$8,814.9	$8,774.8	$8,721.9	$8,655.5	$8,574.4	$8,749.8	$9,415.5	$10,121.6	$10,870.3	$11,664.0	$12,505.2	**$234,965.5**
CLOSING CASH BALANCE	($35,708.2)	($40,574.0)	($45,765.4)	($51,301.5)	($57,202.5)	($49,423.5)	($40,998.2)	($31,886.6)	($22,046.5)	($11,433.4)	$0.0	

2018 Adjusted Charge Per Employee	**$751.08**

Allocation of Capital Program	
Residential Sector	71.6%
Non-Residential Sector	28.4%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D

General Services

HEMSON

Appendix D.1

Parks and Recreation

HEMSON

Appendix D.1

Parks and Recreation Services
Technical Appendix

The Parks, Forestry and Recreation Division is responsible for the provision of Parks and Recreation services throughout the City. Parks and recreation services are provided through numerous indoor recreation facilities, developed parkland, park amenities and special facilities with a total replacement value estimated at $8,106.01 million in 2017.

This appendix provides a brief outline of historical service levels for Parks and Recreation services, the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charges, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff and are informed based on the proposed and Council-approved capital budgets, previous development charge studies, and other long-range planning documents, including the City's recent Facilities Master Plan.

The following discusses the individual components included in the Parks and Recreation service category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital Forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 3	Cash Flow Analysis

A. Historical Service Levels and Calculation Of 10-Year Average Service Levels And Maximum Allowable Charges

In general, the asset replacement values are based upon an audit of facilities as well as average tender prices for recent projects. The replacement value for the lands associated with the indoor recreation facilities and outdoor recreation buildings were taken from a database containing City-owned real

estate assets that was provided by the City's Facilities and Real Estate Division.

The community centres, arenas, pools and special facilities are itemized individually, including associated land parcels for each indoor recreation facility. All parks assets, including bridges, parking lots, water play facilities, sport fields, outdoor buildings, and special facilities are identified by park and assigned a $/unit replacement cost. For the purposes of the DC Background Study, and in an effort to summarize the substantial amount of information, assets have been summarized where possible.

The replacement cost for hectares of parkland have been calculated based on the classification and size of the parks. For instance, destination parks have a replacement cost of $60,000 per hectare, parks that are 0 to 15 hectares in size are valued at $300,000 per hectare, and parks greater than 15 hectare in size are valued at $120,000 per hectare.

Table 1 provides a summary of the level of service and the calculation of the ten-year historical service level. The calculation of the maximum allowable funding envelope is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$2,984.39
Net Population Growth (2018 – 2027)	252,955
Maximum Allowable Funding Envelope	$754,917,246
Less: Ten per cent Legislated Reduction	$75,491,725
Discounted Maximum Allowable Funding Envelope	**$679,425,522**

The existing facilities have been examined and consideration has been given to whether or not "excess capacity" exists within the City's infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no "uncommitted excess capacity" exists within the City's parks and recreation infrastructure, and as such, no adjustments have been made to the service level calculations.

B. The Development-Related Capital Forecast

The 2018–2027 development-related capital forecast includes a wide variety of projects for the provision of Parks and Recreation services in the City and

amounts to a total gross cost of $3,638.05 million. The projects identified in the capital forecast will result, in whole or in part, in increased capacity to meet the servicing needs of new development over the planning period.

The majority of the park development and amenities projects are site-specific and self-explanatory in nature. The park development component of the forecast also includes a line item related to the Rail Deck Park, as supported by a Council's expressed intent to recover the eligible components of the project in the City's 2018 Development Charges Background Study Review[1]. The City has also recently identified a Facilities Master Plan that identifies parks and recreation projects over the 2019-2038 planning period[2]. To the extent permitted under the legislation, the projects identified in the Facilitates Master Plan that will benefit growth over the 2018-2027 planning period have been included. As for the indoor recreation facilities, the City intends to construct new and upgrade existing pools, community centres, and arenas.

Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City's "excess capacity" other than excess capacity which is "committed". "Excess capacity" is undefined in the DCA, but is considered to relate to the capacity available to meet some or all of the increase in need for service in order to potentially represent a deduction. For Parks and Recreation services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and feasibility work associated with planning new facilities. It is recognized that no "surplus" of capacity exists within Parks and Recreation services.

[1] As identified in Executive Committee report Ex29.9 http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EX29.2

[2] As identified in Executive Committee report Ex. 28.2 https://web.toronto.ca/wp-content/uploads/2017/10/96ac-PFR-Facilities-Master-Plan-107663.pdf

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

The reductions to City programming projects under grants, subsidies and other recovers are largely related to anticipated funding from Sections 37, 42, and 45 contributions. For most projects, these developer-related levies generally cover the full gross project cost, leaving no net municipal cost to the City. In the case where a portion of the project is funded through contributions, that amount is netted off of the gross project cost and the remainder is deemed to be the net cost. The funding for Waterfront Toronto and Port Lands-related recreation projects come from upper-tier governments; both from the Provincial and Federal governments.

In total, $483.18 million in grants, subsidies, and other recoveries is identified and applied to the DC capital program.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development.

Generally speaking, shares have been deducted from the net cost of projects that account for portions of the project that relate to state of good repair or the replacement or reconstruction of existing facilities. Those projects that are completely new are deemed to be entirely growth-related and no replacement shares have been deducted from the net cost.

In total, $232.47 million is identified as the replacement and benefit to existing share.

3. Legislated Ten per cent Reduction

As this service is not identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs, less the replacement/benefit to existing shares, is made to each project.

In total, $292.24 million is identified as the ten per cent reduction share.

4. Post-2027 Benefit

The total development-related cost of the Parks and Recreation capital forecast — $2,630.16 million — is greater than the calculated net funding

envelope. As such, $1,944.87 million of the development-related costs is deemed to be post-period benefit. These costs will be examined in future DC by-laws for recovery, subject to service level limitations.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $679.43 million is included in the development charge calculation.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 95 per cent to residential development, as these facilities are primarily provided for and planned for use by the residential community. A nominal 5 per cent allocation is made for non-residential development recognizing that Parks and Recreation facilities are used by employees working within the City of Toronto.

Table 2 displays the 95 per cent allocation to the residential sector, or $645.45 million, and 5 per cent to the non-residential sector, or $33.97 million. The resulting unadjusted charge per capita is $2,553.32 before cash flow adjustments. The unadjusted non-residential charge per employee amounts to $242.31.

E. Cash Flow Analysis

A cash flow analysis has been undertaken to account for the timing of projects and receipt of DCs. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the DC rate required to finance the discounted development-related capital spending plan, including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate DC rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest

rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee non-residential development charges. After cash flow consideration, the residential calculated charge increases to $2,795.23 per capita. The non-residential charge after cash flow increases to $266.08 per employee.

The following table summarizes the calculation of the Parks and Recreation services DCs.

PARKS AND RECREATION SUMMARY

10-year Hist. Service Level per capita	2018 - 2027 Development-Related Capital Program Total	Net DC Recoverable	Unadjusted Development Charge $/capita	$/emp	**Adjusted Development Charge $/capita**	**$/emp**
$2,984.39	$3,638,054,716	$679,425,522	$2,553.32	$242.31	**$2,795.23**	**$266.08**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

TORONTO PARKS	# of Hectares										UNIT COST
Park Type	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/ha)
Destination Parks	2,028.02	2,028.02	2,028.02	2,028.02	2,028.02	2,028.02	2,028.02	2,028.02	2,028.02	2,028.02	$ 60,000
Community Parks (0-15 hectares in size)	2,618.39	2,619.84	2,619.94	2,621.38	2,621.38	2,627.57	2,630.54	2,633.60	2,636.65	2,636.65	$ 300,000
Community Parks (> 15 hectares in size)	3,105.14	3,105.14	3,105.14	3,105.14	3,105.14	3,105.14	3,105.14	3,105.14	3,105.14	3,105.14	$ 120,000
Total (ha)	**7,751.55**	**7,753.00**	**7,753.10**	**7,754.54**	**7,754.54**	**7,760.74**	**7,763.70**	**7,766.77**	**7,769.81**	**7,769.81**	
Total ($000)	**$ 1,279,814.9**	**$ 1,280,250.0**	**$ 1,280,280.0**	**$ 1,280,711.4**	**$ 1,280,711.4**	**$ 1,282,570.7**	**$ 1,283,459.8**	**$ 1,284,379.7**	**$ 1,285,294.3**	**$ 1,285,294.3**	

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
INDOOR RECREATION

Community Centres, Arenas & Pools	# of Square Feet									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Number of Square Feet	4,181,661	4,188,816	4,245,116	4,284,905	4,315,410	4,358,830	4,670,758	4,670,758	4,730,101	4,800,133
Total ($000)	**$1,385,923.3**	**$1,388,306.8**	**$1,407,880.5**	**$1,420,692.1**	**$1,440,969.6**	**$1,455,222.4**	**$1,685,293.1**	**$1,685,293.1**	**$1,709,426.1**	**$1,742,201.1**

Community Centres, Arenas & Pools	# of Hectares									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Land Area	171.07	171.07	171.07	171.07	171.07	171.07	171.07	171.07	171.07	171.07
Total ($000)	**$3,768,569.3**	**$3,768,569.3**	**$3,768,569.3**	**$3,768,569.3**	**$3,768,569.3**	**$3,768,569.3**	**$3,768,569.3**	**$3,768,569.3**	**$3,768,569.3**	**$3,768,569.3**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

PARKING SPACES	# of Parking Spaces									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Number of Spaces	27,984	27,984	27,984	27,984	27,984	27,984	28,418	28,418	28,418	28,532
Total ($000)	**$56,846.3**	**$56,846.3**	**$56,846.3**	**$56,846.3**	**$56,846.3**	**$56,846.3**	**$58,365.3**	**$58,365.3**	**$58,365.3**	**$59,304.0**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

Tennis Courts & Sports Pads	# of Tennis Courts & Sports Pads									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Number of Tennis Courts and Sports Pads	738	738	742	744	741	746	746	746	747	747
Total ($000)	**$54,596.8**	**$54,596.8**	**$55,262.8**	**$55,382.8**	**$55,154.8**	**$55,529.8**	**$55,529.8**	**$55,529.8**	**$55,749.8**	**$55,749.8**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

Waterplay/Splash Pad/Wading Pools	**# of Waterplay/Splash Pad/Wading Pools**									
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Total Number of Waterplay/Splash Pad/Wading Pools	193	193	200	208	211	214	219	224	227	227
Total ($000)	**$44,046.9**	**$44,046.9**	**$48,268.0**	**$51,604.5**	**$52,391.2**	**$53,959.4**	**$56,572.9**	**$60,036.4**	**$62,338.1**	**$62,338.1**

Outdoor Pools	**# of Outdoor Pools**									
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Total Number of Outdoor Pools	59	58	58	58	58	58	58	58	59	59
Total ($000)	**$140,360.0**	**$140,360.0**	**$140,360.0**	**$140,360.0**	**$140,360.0**	**$140,360.0**	**$140,360.0**	**$140,360.0**	**$145,360.0**	**$145,360.0**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

Cricket Pitches	# of Cricket Pitches										UNIT COST
Park Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/unit)
Ashtonbee Park	3	3	3	3	3	2	2	2	2	2	$100,000
Caledonia Park	2	2	2	2	2	2	2	2	2	2	$100,000
Cedarvale Park	1	1	1	1	1	1	1	1	1	1	$50,000
Centennial Park (Etobicoke/York)	2	2	2	2	2	2	2	2	2	2	$100,000
Dentonia Park	-	-	-	-	-	1	1	1	1	1	$50,000
Ellesmere Resevoir	1	1	1	1	1	2	2	2	2	2	$100,000
Fergy Brown Park	2	2	2	2	2	2	2	2	2	2	$100,000
Flemingdon Park	1	1	1	1	1	1	1	1	1	1	$50,000
G Ross Lord Park	2	2	2	2	2	2	2	2	2	2	$100,000
Gracedale Park	1	1	1	1	1	1	1	1	1	1	$50,000
Keele Reservoir	2	2	2	2	2	2	2	2	2	2	$100,000
L'Amoreaux Sports Centre	1	1	1	1	1	1	1	1	1	1	$50,000
McCleary Park	1	1	1	1	1	1	1	1	1	1	$50,000
Remberto Navia Sports Fields (formerly referred to as Norfinch Sports Fields)	1	1	1	1	1	1	1	1	1	1	$50,000
Riverdale Park West	-	-	-	-	-	1	1	1	1	1	$50,000
Summerlea Park	1	1	1	1	1	1	1	1	1	1	$50,000
Sunnybrook Park	3	3	3	3	3	3	3	3	3	3	$150,000
Terry Fox Park	1	1	1	1	1	1	1	1	1	1	$50,000
Thackeray Park	-	-	1	1	1	1	1	1	1	1	$450,000
Wexford Park	1	1	1	1	1	1	1	1	1	1	
Total (#)	**26**	**26**	**27**	**27**	**27**	**29**	**29**	**29**	**29**	**29**	
Total ($000)	**$2,250.0**	**$2,250.0**	**$2,700.0**	**$2,700.0**	**$2,700.0**	**$2,800.0**	**$2,800.0**	**$2,800.0**	**$2,800.0**	**$2,800.0**	

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
INDOOR RECREATION

Special Facilities	# of Square Feet									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Number of Facilities	810,341	810,341	810,341	814,558	814,558	814,558	814,558	814,558	814,558	814,558
Total ($000)	**$280,625.2**	**$280,625.2**	**$280,625.2**	**$282,026.7**	**$282,026.7**	**$282,026.7**	**$282,026.7**	**$282,026.7**	**$282,026.7**	**$282,026.7**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

Bridges	# of Bridges									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Number of Bridges	269	269	276	278	278	278	278	278	278	278
Total ($000)	**$48,539.1**	**$48,539.1**	**$49,344.0**	**$49,764.1**	**$49,764.1**	**$49,764.1**	**$49,764.1**	**$49,764.1**	**$49,764.1**	**$49,764.1**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

Ferry/Marine Vessels	# of Vessels										UNIT COST ($/unit)
Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Thomas Rennie Boat	1	1	1	1	1	1	1	1	1	1	$5,523,700
Ongiara Boat	1	1	1	1	1	1	1	1	1	1	$3,717,900
Trillium Boat	1	1	1	1	1	1	1	1	1	1	$7,435,700
Sam McBride Boat	1	1	1	1	1	1	1	1	1	1	$5,523,700
William Inglis Boat	1	1	1	1	1	1	1	1	1	1	$4,780,100
Total (#)	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	
Total ($000)	**$26,981.1**	**$26,981.1**	**$26,981.1**	**$26,981.1**	**$26,981.1**	**$26,981.1**	**$26,981.1**	**$26,981.1**	**$26,981.1**	**$26,981.1**	

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
INDOOR RECREATION

AIRs (Artificial Ice Rinks), Skating Trails and AIR Buildings	# of Square Feet									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Number of AIRs (Artificial Ice Rinks), Skating Trails and Buildings	805,786	805,786	840,454	840,454	840,454	851,842	851,842	851,842	851,842	851,842
Total ($000)	**$107,478.8**	**$107,478.8**	**$113,423.9**	**$113,423.9**	**$113,423.9**	**$115,187.4**	**$115,187.4**	**$115,187.4**	**$115,187.4**	**$115,187.4**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION

Outdoor Recreation Buildings	**# of Square Feet**									
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Total Sq.ft of Buildings	543,274	546,774	549,006	549,419	549,419	549,419	550,452	550,845	555,473	555,473
Total ($000)	**$203,321.0**	**$204,951.9**	**$205,801.4**	**$204,912.8**	**$204,912.8**	**$204,912.8**	**$205,306.5**	**$205,456.2**	**$207,219.7**	**$207,219.7**

Outdoor Recreation Buildings	**# of Hectares**									
Facility Name	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Highland Creek Bowling Green Clubhouse	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Willowdale Lawn Bowling Greens Club and Changeroom	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Total (ha)	**1.18**	**1.18**	**1.18**	**1.18**	**1.18**	**1.18**	**1.18**	**1.18**	**1.18**	**1.18**
Total ($000)	**$26,038.6**	**$26,038.6**	**$26,038.6**	**$26,038.6**	**$26,038.6**	**$26,038.6**	**$26,038.6**	**$26,038.6**	**$26,038.6**	**$26,038.6**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

Harbourfront Centre Buildings	# of Square Feet										UNIT COST
Facility Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/sq.ft.)
John Quay - Building A	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	$149
John Quay - Building B	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	$149
John Quay - Building C	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	$149
Power Plant/Harbourfront Theatre	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	$149
Premier Dance Theatre	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	$106
Waters Edge Promenade, Boardwalk, and Docks	1	1	1	1	1	1	1	1	1	1	$1,530,700
York Quay Centre	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	$149
Total (sq.ft.)	**176,001**	**176,001**	**176,001**	**176,001**	**176,001**	**176,001**	**176,001**	**176,001**	**176,001**	**176,001**	
Total ($000)	**$26,515**	**$26,515**	**$26,515**	**$26,515**	**$26,515**	**$26,515**	**$26,515**	**$26,515**	**$26,515**	**$26,515**	

Harbourfront Centre Facilities	# of Facilities										UNIT COST
Description	2007	2008	2009	2010	2011	2013	2014	2015	2016	2017	($/unit)
Amsterdam Bridge	1	1	1	1	1	1	1	1	1	1	$1,062,248
CIBC Concert Stage (Amphitheatre)	1	1	1	1	1	1	1	1	1	1	$1,062,248
Ice Rink/Wading Pool	1	1	1	1	1	1	1	1	1	1	$531,124
Total (#)	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	
Total ($000)	**$2,655.6**	**$2,655.6**	**$2,655.6**	**$2,655.6**	**$2,655.6**	**$2,655.6**	**$2,655.6**	**$2,655.6**	**$2,655.6**	**$2,655.6**	

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

Baseball & Softball Diamonds	**# of Diamonds**									
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Total Number of Diamonds	334	334	334	334	334	338	338	338	338	338
Total ($000)	**$98,964.3**	**$98,964.3**	**$98,964.3**	**$98,964.3**	**$98,964.3**	**$99,857.2**	**$99,857.2**	**$99,857.2**	**$99,857.2**	**$99,857.2**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
PARKS AND RECREATION
OUTDOOR RECREATION

Playgrounds	# of Playgrounds										UNIT COST
Park Type	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/unit)
Local Parks	739	746	756	772	772	780	788	791	795	795	$150,000
Indoor Parks	1	1	1	1	1	1	1	1	1	1	$200,000
Destination Parks	88	88	89	91	91	81	81	82	82	82	$350,000
Total (#)	**828**	**835**	**846**	**864**	**864**	**862**	**870**	**874**	**878**	**878**	
Total ($000)	**$141,850.0**	**$142,900.0**	**$144,750.0**	**$147,850.0**	**$147,850.0**	**$145,550.0**	**$146,750.0**	**$147,550.0**	**$148,150.0**	**$148,150.0**	

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
PARKS, FORESTRY AND RECREATION

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historic Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048

INVENTORY SUMMARY ($000)

Community Centres, Arenas & Pools	$5,154,492.6	$5,156,876.1	$5,176,449.8	$5,189,261.4	$5,209,538.9	$5,223,791.7	$5,453,862.4	$5,453,862.4	$5,477,995.4	$5,510,770.4
Parking Spaces	$56,846.3	$56,846.3	$56,846.3	$56,846.3	$56,846.3	$56,846.3	$58,365.3	$58,365.3	$58,365.3	$59,304.0
Tennis Courts & Sports Pads	$54,596.8	$54,596.8	$55,262.8	$55,382.8	$55,154.8	$55,529.8	$55,529.8	$55,529.8	$55,749.8	$55,749.8
Waterplay, Splash Pads,Wading Pools & Outdoor Pools	$184,406.9	$184,406.9	$188,628.0	$191,964.5	$192,751.2	$194,319.4	$196,932.9	$200,396.4	$207,698.1	$207,698.1
Cricket Pitches	$2,250.0	$2,250.0	$2,700.0	$2,700.0	$2,700.0	$2,800.0	$2,800.0	$2,800.0	$2,800.0	$2,800.0
Special Facilities	$280,625.2	$280,625.2	$280,625.2	$282,026.7	$282,026.7	$282,026.7	$282,026.7	$282,026.7	$282,026.7	$282,026.7
Developed Parkland	$1,279,814.9	$1,280,250.0	$1,280,280.0	$1,280,711.4	$1,280,711.4	$1,282,570.7	$1,283,459.8	$1,284,379.7	$1,285,294.3	$1,285,294.3
Bridges	$48,539.1	$48,539.1	$49,344.0	$49,764.1	$49,764.1	$49,764.1	$49,764.1	$49,764.1	$49,764.1	$49,764.1
Ferry Marine Vessels	$26,981.1	$26,981.1	$26,981.1	$26,981.1	$26,981.1	$26,981.1	$26,981.1	$26,981.1	$26,981.1	$26,981.1
Artificial Ice Rinks (AIRs)	$107,478.8	$107,478.8	$113,423.9	$113,423.9	$113,423.9	$115,187.4	$115,187.4	$115,187.4	$115,187.4	$115,187.4
Outdoor Recreation Buildings	$229,359.6	$230,990.6	$231,840.0	$230,951.5	$230,951.5	$230,951.5	$231,345.2	$231,494.9	$233,258.3	$233,258.3
Harbourfront	$29,170.4	$29,170.4	$29,170.4	$29,170.4	$29,170.4	$29,170.4	$29,170.4	$29,170.4	$29,170.4	$29,170.4
Baseball Diamonds	$98,964.3	$98,964.3	$98,964.3	$98,964.3	$98,964.3	$99,857.2	$99,857.2	$99,857.2	$99,857.2	$99,857.2
Playgrounds	$141,850.0	$142,900.0	$144,750.0	$147,850.0	$147,850.0	$145,550.0	$146,750.0	$147,550.0	$148,150.0	$148,150.0
Total ($000)	**$7,695,375.9**	**$7,700,875.6**	**$7,735,265.8**	**$7,755,998.4**	**$7,776,834.5**	**$7,795,346.2**	**$8,032,032.3**	**$8,037,365.4**	**$8,072,298.2**	**$8,106,011.9**

APPENDIX D.1
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
PARKS, FORESTRY AND RECREATION

SERVICE LEVEL ($/capita)											**Average Service Level**
Community Centres, Arenas & Pools	$2,041.06	$2,027.71	$2,021.73	$1,984.35	$1,976.92	$1,969.01	$2,044.88	$2,022.89	$2,005.42	$2,001.70	$2,009.57
Parking Spaces	$22.51	$22.35	$22.20	$21.74	$21.57	$21.43	$21.88	$21.65	$21.37	$21.54	$21.82
Tennis Courts & Sports Pads	$21.62	$21.47	$21.58	$21.18	$20.93	$20.93	$20.82	$20.60	$20.41	$20.25	$20.98
Waterplay, Splash Pads,Wading Pools & Outdoor Pools	$73.02	$72.51	$73.67	$73.41	$73.15	$73.25	$73.84	$74.33	$76.04	$75.44	$73.86
Cricket Pitches	$0.89	$0.88	$1.05	$1.03	$1.02	$1.06	$1.05	$1.04	$1.03	$1.02	$1.01
Special Facilities	$111.12	$110.34	$109.60	$107.85	$107.02	$106.30	$105.74	$104.61	$103.25	$102.44	$106.83
Developed Parkland	$506.78	$503.40	$500.03	$489.74	$486.01	$483.44	$481.22	$476.39	$470.53	$466.86	$486.44
Bridges	$19.22	$19.09	$19.27	$19.03	$18.88	$18.76	$18.66	$18.46	$18.22	$18.08	$18.77
Ferry Marine Vessels	$10.68	$10.61	$10.54	$10.32	$10.24	$10.17	$10.12	$10.01	$9.88	$9.80	$10.24
Artificial Ice Rinks (AIRs)	$42.56	$42.26	$44.30	$43.37	$43.04	$43.42	$43.19	$42.72	$42.17	$41.84	$42.89
Outdoor Recreation Buildings	$90.82	$90.83	$90.55	$88.31	$87.64	$87.05	$86.74	$85.86	$85.39	$84.73	$87.79
Harbourfront	$11.55	$11.47	$11.39	$11.15	$11.07	$11.00	$10.94	$10.82	$10.68	$10.60	$11.07
Baseball Diamonds	$39.19	$38.91	$38.65	$37.84	$37.56	$37.64	$37.44	$37.04	$36.56	$36.27	$37.71
Playgrounds	$56.17	$56.19	$56.53	$56.54	$56.11	$54.86	$55.02	$54.73	$54.24	$53.81	$55.42
Total ($/capita)	**$3,047.19**	**$3,028.03**	**$3,021.12**	**$2,965.85**	**$2,951.16**	**$2,938.31**	**$3,011.54**	**$2,981.14**	**$2,955.15**	**$2,944.38**	**$2,984.39**

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
PARKS, FORESTRY AND RECREATION

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2008 -2017	$2,984.39
Net Population Growth 2018 - 2027	252,955
Maximum Allowable Funding Envelope	$754,917,246
Less: 10% Legislated Reduction	$75,491,725
Discounted Maximum Allowable Funding Envelope	**$679,425,522**

APPENDIX D.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PARKS AND RECREATION

Project Name		Subproject Name	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
							BTE[1] %	Replacement & BTE Shares	10% Reduction		Prior Growth[2]	2018 2027	Post 2027
1 PARKS AND RECREATION													
1.0 Indoor Recreation Facilities													
1.1.1	Community Centres	Bessarion CC (Canadian Tire) - Construction	2020 - 2020	$ 12,124,000	$ 12,124,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.2	Community Centres	Bessarion CC - Construction Funding	2018 - 2019	$ 20,686,000	$ -	$ 20,686,000	0%	$ -	$ 2,068,600	$ 18,617,400	$ -	$ 18,617,400	$ -
1.1.3	Community Centres	Bessarion CC - Stakeholder Funding	2018 - 2020	$ 19,425,000	$ 19,425,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.4	Community Centres	Bessarion CC - Parking Garage	2018 - 2018	$ 9,000,000	$ -	$ 9,000,000	0%	$ -	$ 900,000	$ 8,100,000	$ -	$ 8,100,000	$ -
1.1.5	Community Centres	Bessarion CC - Additional Stakeholder Funding	2019 - 2019	$ 275,000	$ 275,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.6	Community Centres	Bessarion CC - Additional Funding	2019 - 2020	$ 14,900,000	$ -	$ 14,900,000	0%	$ -	$ 1,490,000	$ 13,410,000	$ -	$ 13,410,000	$ -
1.1.7	Community Centres	Milliken Park CRC Expansion Construction - S37	2018 - 2018	$ 1,696,000	$ 1,696,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.8	Community Centres	Milliken CC - S37 Accumulated Interest	2018 - 2018	$ 200,000	$ 200,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.9	Community Centres	North East Scarborough CC (RFR#3) Design	2018 - 2020	$ 3,000,000	$ -	$ 3,000,000	0%	$ -	$ 300,000	$ 2,700,000	$ -	$ 2,700,000	$ -
1.1.10	Community Centres	North East Scarborough New CC (RFR#3) Construction	2018 - 2022	$ 37,000,000	$ -	$ 37,000,000	0%	$ -	$ 3,700,000	$ 33,300,000	$ -	$ 33,300,000	$ -
1.1.11	Community Centres	Western North York New CC (RFR#5) Design	2018 - 2020	$ 3,000,000	$ -	$ 3,000,000	0%	$ -	$ 300,000	$ 2,700,000	$ -	$ 2,700,000	$ -
1.1.12	Community Centres	Western North York New CC (RFR#5) Construction	2019 - 2023	$ 37,000,000	$ -	$ 37,000,000	0%	$ -	$ 3,700,000	$ 33,300,000	$ -	$ 33,300,000	$ -
1.1.13	Community Centres	40 Wabash Parkdale New CC (RFR#7) - Design	2018 - 2021	$ 3,000,000	$ -	$ 3,000,000	0%	$ -	$ 300,000	$ 2,700,000	$ -	$ 2,700,000	$ -
1.1.14	Community Centres	40 Wabash Parkdale New CC (RFR#7) - Construction	2019 - 2022	$ 37,000,000	$ -	$ 37,000,000	0%	$ -	$ 3,700,000	$ 33,300,000	$ -	$ 33,300,000	$ -
1.1.15	Community Centres	Canoe Landing New CC (Spadina/Front)-Construction	2018 - 2018	$ 16,321,011	$ -	$ 16,321,011	0%	$ -	$ 1,632,101	$ 14,688,910	$ -	$ 14,688,910	$ -
1.1.16	Community Centres	Canoe Landing (Block 31) CC	2018 - 2018	$ 1,655,000	$ -	$ 1,655,000	0%	$ -	$ 165,500	$ 1,489,500	$ -	$ 1,489,500	$ -
1.1.17	Community Centres	Canoe Landing (Block 31) CC - Additional Funds	2018 - 2018	$ 4,600,000	$ -	$ 4,600,000	0%	$ -	$ 460,000	$ 4,140,000	$ -	$ 4,140,000	$ -
1.1.18	Community Centres	Canoe Landing (Block 31) - TDSB & TCDSB Schools	2018 - 2020	$ 39,959,741	$ 39,959,741	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.19	Community Centres	Canoe Landing (Blk 31) Community Space Design S37	2018 - 2019	$ 367,000	$ 367,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.20	Community Centres	Canoe Landing (Blk 31) Comm.Space Construction S37	2018 - 2019	$ 4,000,000	$ 4,000,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.21	Community Centres	Canoe Landing (Block 31) CC - Energy Management	2018 - 2018	$ 500,000	$ -	$ 500,000	0%	$ -	$ 50,000	$ 450,000	$ -	$ 450,000	$ -
1.1.22	Community Centres	Canoe Landing (Blk 31)-Active Roof, Public Art,FFE	2018 - 2019	$ 4,525,000	$ -	$ 4,525,000	0%	$ -	$ 452,500	$ 4,072,500	$ -	$ 4,072,500	$ -
1.1.23	Community Centres	Canoe Landing (Railway Lands) Playground S37	2018 - 2019	$ 1,000,000	$ 1,000,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.24	Community Centres	York CC Green Roof & Security	2018 - 2018	$ 890,000	$ -	$ 890,000	90%	$ 801,000	$ 8,900	$ 80,100	$ -	$ 80,100	$ -
1.1.25	Community Centres	Parkway Forest CC Furniture	2018 - 2018	$ 600,000	$ -	$ 600,000	0%	$ -	$ 60,000	$ 540,000	$ -	$ 540,000	$ -
1.1.26	Community Centres	Birchmount CC - Build Double Gym Construction	2018 - 2018	$ 7,000,000	$ -	$ 7,000,000	0%	$ -	$ 700,000	$ 6,300,000	$ -	$ 6,300,000	$ -
1.1.27	Community Centres	Trace Manes CC Improvements - S37	2018 - 2018	$ 64,000	$ 64,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.28	Community Centres	Edithvale CC - S37	2018 - 2018	$ 258,000	$ 258,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.29	Community Centres	Masaryk-Cowan CC - Upgrades	2018 - 2019	$ 3,000,000	$ -	$ 3,000,000	90%	$ 2,700,000	$ 30,000	$ 270,000	$ -	$ 270,000	$ -
1.1.30	Community Centres	Birchmount CC - New Playground	2018 - 2018	$ 250,000	$ -	$ 250,000	0%	$ -	$ 25,000	$ 225,000	$ -	$ 225,000	$ -
1.1.31	Community Centres	Edithvale CC -S37 Change of Scope	2018 - 2018	$ 1,000,000	$ 1,000,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.32	Community Centres	North Toronto Memorial CC Improvements	2018 - 2018	$ 2,000,000	$ -	$ 2,000,000	90%	$ 1,800,000	$ 20,000	$ 180,000	$ -	$ 180,000	$ -
1.1.33	Community Centres	Cummer CC-AODA Upgrades Health Club/Change Rooms	2018 - 2018	$ 800,000	$ -	$ 800,000	90%	$ 720,000	$ 8,000	$ 72,000	$ -	$ 72,000	$ -
1.1.34	Outdoor Recreation Centres	Earl Bales Fieldhouse Upgrade & Expansion	2018 - 2018	$ 3,000,000	$ 200,000	$ 2,800,000	0%	$ -	$ 280,000	$ 2,520,000	$ -	$ 2,520,000	$ -
1.1.35	Outdoor Recreation Centres	Earl Bales Fieldhouse Upgrade Design	2018 - 2018	$ 450,000	$ -	$ 450,000	10%	$ 45,000	$ 40,500	$ 364,500	$ -	$ 364,500	$ -
1.1.36	Outdoor Recreation Centres	Ward 12 ORC Facility (Former Keelesdale Pk-Bball)	2018 - 2018	$ 500,000	$ -	$ 500,000	50%	$ 250,000	$ 25,000	$ 225,000	$ -	$ 225,000	$ -
1.1.37	Outdoor Recreation Centres	Sports Fields FY2018-2026 (SFP) ^	2018 - 2026	$ 9,000,000	$ -	$ 9,000,000	90%	$ 8,100,000	$ 90,000	$ 810,000	$ -	$ 810,000	$ -
1.1.38	Outdoor Recreation Centres	Ashbridges Bay Skateboard Pk/Ward 32	2018 - 2018	$ 140,000	$ 140,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.39	Outdoor Recreation Centres	Leslie Street Spit Washroom	2018 - 2018	$ 1,500,000	$ -	$ 1,500,000	0%	$ -	$ 150,000	$ 1,350,000	$ -	$ 1,350,000	$ -
1.1.40	Outdoor Recreation Centres	Dufferin Grove Community Field House (AIR Bldg)	2018 - 2018	$ 252,000	$ -	$ 252,000	50%	$ 126,000	$ 12,600	$ 113,400	$ -	$ 113,400	$ -
1.1.41	Outdoor Recreation Centres	Humber Bay East - New Building S37/S45	2018 - 2019	$ 7,000,000	$ 1,500,000	$ 5,500,000	0%	$ -	$ 550,000	$ 4,950,000	$ -	$ 4,950,000	$ -

APPENDIX D.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PARKS AND RECREATION

	Project Name	Subproject Name	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
							BTE[1] %	Replacement & BTE Shares	10% Reduction		Prior Growth[2]	2018 2027	Post 2027
1.1.42	Outdoor Recreation Centres	Sports Fields FY2017^	2018 - 2018	$ 1,000,000	$ -	$ 1,000,000	90%	$ 900,000	$ 10,000	$ 90,000	$ -	$ 90,000	$ -
1.1.43	Outdoor Recreation Centres	Skateboard Facility	2018 - 2018	$ 500,000	$ -	$ 500,000	0%	$ -	$ 50,000	$ 450,000	$ -	$ 450,000	$ -
1.1.44	Outdoor Recreation Centres	Dufferin Grove New Community Field House	2018 - 2019	$ 3,500,000	$ -	$ 3,500,000	78%	$ 2,714,400	$ 78,560	$ 707,040	$ -	$ 707,040	$ -
1.1.45	Outdoor Recreation Centres	Ward 4 - New Basketball Court S42	2018 - 2018	$ 165,000	$ 165,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.46	Outdoor Recreation Centres	Magwood Park - Fitness Stations S42	2018 - 2018	$ 60,000	$ 60,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.47	Pool	Wellesley CC Pool - Construction - S37/45/S42	2018 - 2019	$ 19,000,000	$ 8,000,000	$ 11,000,000	0%	$ -	$ 1,100,000	$ 9,900,000	$ -	$ 9,900,000	$ -
1.1.48	Pool	Wellesley CC Pool Design - S37/S45	2018 - 2018	$ 1,000,000	$ 1,000,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.1.49	Pool	Davisville Community Pool - Design	2018 - 2022	$ 1,475,000	$ -	$ 1,475,000	0%	$ -	$ 147,500	$ 1,327,500	$ -	$ 1,327,500	$ -
1.1.50	Arena	Don Mills Civitan Arena Replacement - Design	2018 - 2019	$ 1,950,000	$ -	$ 1,950,000	50%	$ 975,000	$ 97,500	$ 877,500	$ -	$ 877,500	$ -
1.1.51	Arena	Don Mills Civitan Arena Replacement - Construction	2018 - 2021	$ 22,550,000	$ -	$ 22,550,000	50%	$ 11,275,000	$ 1,127,500	$ 10,147,500	$ -	$ 10,147,500	$ -
1.1.52	Arena	College Park AIR S42 AR CIL	2018 - 2018	$ 4,800,000	$ 4,300,000	$ 500,000	0%	$ -	$ 50,000	$ 450,000	$ -	$ 450,000	$ -
1.1.53	Arena	Queensway Rink Skating Pad	2018 - 2018	$ 600,000	$ -	$ 600,000	0%	$ -	$ 60,000	$ 540,000	$ -	$ 540,000	$ -
1.1.54	Arena	High Park AIR - Garage for Zamboni	2018 - 2018	$ 145,000	$ -	$ 145,000	50%	$ 72,500	$ 7,250	$ 65,250	$ -	$ 65,250	$ -
1.1.55	Facility Components	Investigation & Pre-Engineering SI&G FY2017	2018 - 2018	$ 650,000	$ 150,000	$ 500,000	10%	$ 50,000	$ 45,000	$ 405,000	$ -	$ 405,000	$ -
1.1.56	Facility Components	Various Bldgs & Pks-Accessibility Prog. FY2017	2018 - 2018	$ 1,554,000	$ -	$ 1,554,000	90%	$ 1,398,600	$ 15,540	$ 139,860	$ -	$ 139,860	$ -
1.1.57	Community Centres	Etobicoke Civic Centre (Community Centre Portion)	2018 - 2020	$ 54,968,655	$ -	$ 54,968,655	0%	$ -	$ 5,496,866	$ 49,471,789	$ -	$ 49,471,789	$ -
1.1.58	Community Centres	Moss Park Redevelopment	2023 - 2023	$ 100,000,000	$ 66,000,000	$ 34,000,000	28%	$ 9,400,000	$ 2,460,000	$ 22,140,000	$ -	$ 22,140,000	$ -
1.1.59	Community Centres	Lawrence Heights New CC - Design	2021 - 2023	$ 3,200,000	$ -	$ 3,200,000	0%	$ -	$ 320,000	$ 2,880,000	$ -	$ -	$ 2,880,000
1.1.60	Pool	Davisville Community Pool - Construction S37	2020 - 2022	$ 15,660,000	$ 3,193,000	$ 12,467,000	0%	$ -	$ 1,246,700	$ 11,220,300	$ -	$ -	$ 11,220,300
1.1.61	Facility Components	Investigation & Pre-Engineering SI&G FY2018-2026	2018 - 2026	$ 4,500,000	$ 1,350,000	$ 3,150,000	10%	$ 315,000	$ 283,500	$ 2,551,500	$ -	$ -	$ 2,551,500
1.1.62	Facility Components	Various Bldgs & Pks-Accessibility Prog. FY2018-26	2018 - 2026	$ 13,000,000	$ -	$ 13,000,000	90%	$ 11,700,000	$ 130,000	$ 1,170,000	$ -	$ -	$ 1,170,000
	Subtotal Indoor Recreation Facilities			$ 559,215,407	$ 166,426,741	$ 392,788,666		$ 53,342,500	$ 33,944,617	$ 305,501,549	$ -	$ 287,679,749	$ 17,821,800
1.2 Park Development and Amenities													
1.2.1	Park Development	Grand Avenue Park Expansion Ph1 Additional Funds (PARK344 and PAR	2018 - 2019	$ 2,715,000	$ -	$ 2,715,000	0%	$ -	$ 271,500	$ 2,443,500	$ -	$ 2,443,500	$ -
1.2.2	Park Development	Etobicoke City Centre Park Design	2019 - 2020	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ 100,000	$ 900,000	$ -	$ 900,000	$ -
1.2.3	Park Development	Etobicoke City Centre Park Construction	2021 - 2022	$ 3,000,000	$ -	$ 3,000,000	0%	$ -	$ 300,000	$ 2,700,000	$ -	$ 2,700,000	$ -
1.2.4	Park Development	Lakeshore Village Park (former Sand Beach Road)^	2018 - 2018	$ 102,000	$ -	$ 102,000	0%	$ -	$ 10,200	$ 91,800	$ -	$ 91,800	$ -
1.2.5	Park Development	Mystic Point-New Park Development (Grand Manitoba)	2018 - 2019	$ 1,188,000	$ -	$ 1,188,000	0%	$ -	$ 118,800	$ 1,069,200	$ -	$ 1,069,200	$ -
1.2.6	Park Development	Former Inglis Lands - Park Development^ CIP150	2018 - 2019	$ 780,000	$ 260,000	$ 520,000	0%	$ -	$ 52,000	$ 468,000	$ -	$ 468,000	$ -
1.2.7	Park Development	Former Canadian Tire Site ^	2018 - 2018	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ 100,000	$ 900,000	$ -	$ 900,000	$ -
1.2.8	Park Development	Brimley/401/Progress - Park Development^	2018 - 2019	$ 410,000	$ -	$ 410,000	0%	$ -	$ 41,000	$ 369,000	$ -	$ 369,000	$ -
1.2.9	Park Development	Gore Park - New Park Development^	2018 - 2018	$ 2,640,000	$ -	$ 2,640,000	0%	$ -	$ 264,000	$ 2,376,000	$ -	$ 2,376,000	$ -
1.2.10	Park Development	Beresford Park - Fieldhouse/Washroom Upgrades	2018 - 2018	$ 275,000	$ -	$ 275,000	50%	$ 137,500	$ 13,750	$ 123,750	$ -	$ 123,750	$ -
1.2.11	Park Development	Colonel Samuel Smith Site Development^	2018 - 2018	$ 600,000	$ -	$ 600,000	0%	$ -	$ 60,000	$ 540,000	$ -	$ 540,000	$ -
1.2.12	Park Development	Rexlington Park - Redevelopment^	2018 - 2018	$ 900,000	$ -	$ 900,000	15%	$ 135,000	$ 76,500	$ 688,500	$ -	$ 688,500	$ -
1.2.13	Park Development	Keelesdale Park - Rebuild Stairs/Path/N.Sporting^	2020 - 2020	$ 275,000	$ -	$ 275,000	15%	$ 41,300	$ 23,370	$ 210,330	$ -	$ -	$ 210,330
1.2.14	Park Development	Fairmount Park Sport Field Renovations^	2018 - 2018	$ 250,000	$ -	$ 250,000	90%	$ 225,000	$ 2,500	$ 22,500	$ -	$ 22,500	$ -
1.2.15	Park Development	Master Planning PF&R FY2018-FY2026	2018 - 2026	$ 1,800,000	$ -	$ 1,800,000	50%	$ 900,000	$ 90,000	$ 810,000	$ -	$ 810,000	$ -
1.2.16	Park Development	Centre Island - Construct a Picnic Shelter^	2018 - 2018	$ 500,000	$ -	$ 500,000	0%	$ -	$ 50,000	$ 450,000	$ -	$ 450,000	$ -
1.2.17	Park Development	Bellevue Square Improvements S37/S42	2018 - 2018	$ 520,000	$ 520,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -

APPENDIX D.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PARKS AND RECREATION

Project Name		Subproject Name	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
							BTE[1] %	Replacement & BTE Shares	10% Reduction		Prior Growth[2]	2018 2027	Post 2027
1.2.18	Park Development	Queen's Park Improvements S45	2018 - 2018	$ 208,000	$ 208,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.19	Park Development	Queen's Park Improvement FY2012 - S42	2018 - 2018	$ 345,000	$ 345,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.20	Park Development	Vermont Square Improvements - S42 / S45	2018 - 2018	$ 1,050,000	$ 1,050,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.21	Park Development	Mouth of the Garrison Creek Pk Design - S37	2018 - 2018	$ 200,000	$ 200,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.22	Park Development	Grange Park Construction - S37/S42	2018 - 2018	$ 5,284,000	$ 5,284,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.23	Park Development	Bellevue Square Improvements Phase 2 - S42	2018 - 2018	$ 500,000	$ 500,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.24	Park Development	East Mall Park Improvements Construction - S42	2018 - 2018	$ 700,000	$ 700,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.25	Park Development	Allan Gardens Artist Gardens Design - S42	2018 - 2018	$ 75,000	$ 75,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.26	Park Development	Queen's Park Improvements FY2013 - S37	2018 - 2018	$ 724,000	$ 724,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.27	Park Development	Linear Pk (Sheppard Ave) Development	2019 - 2020	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ 100,000	$ 900,000	$ -	$ 900,000	$ -
1.2.28	Park Development	Apted Park Design - S37	2018 - 2018	$ 50,000	$ 50,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.29	Park Development	Apted Park Construction - S45	2019 - 2019	$ 700,000	$ 700,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.30	Park Development	Lawrence Heights Ph1b-Greenway	2018 - 2018	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ 100,000	$ 900,000	$ -	$ 900,000	$ -
1.2.31	Park Development	Lawrence Heights Ph1a-Baycrest	2018 - 2018	$ 1,511,000	$ -	$ 1,511,000	0%	$ -	$ 151,100	$ 1,359,900	$ -	$ 1,359,900	$ -
1.2.32	Park Development	Lawrence Heights Ph1f-Local Neighbourhood Pk	2018 - 2019	$ 1,724,000	$ -	$ 1,724,000	0%	$ -	$ 172,400	$ 1,551,600	$ -	$ 1,551,600	$ -
1.2.33	Park Development	Master Planning PF&R FY2014-2016	2018 - 2018	$ 850,000	$ -	$ 850,000	0%	$ -	$ 85,000	$ 765,000	$ -	$ 765,000	$ -
1.2.34	Park Development	Langford to Logan Park Improvements	2018 - 2018	$ 750,000	$ -	$ 750,000	0%	$ -	$ 75,000	$ 675,000	$ -	$ 675,000	$ -
1.2.35	Park Development	Jessie Ketchum Park Redevelopment - S42	2019 - 2019	$ 435,000	$ 435,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.36	Park Development	Allan Gardens Artist Gardens Construction - S42	2018 - 2018	$ 270,000	$ 270,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.37	Park Development	Ward 24 Park Improvements - S42	2018 - 2018	$ 171,000	$ 171,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.38	Park Development	Parks Plan FY2017	2018 - 2018	$ 5,675,000	$ -	$ 5,675,000	50%	$ 2,837,500	$ 283,750	$ 2,553,750	$ -	$ 2,553,750	$ -
1.2.39	Park Development	Parks Plan FY2018	2018 - 2018	$ 6,350,000	$ -	$ 6,350,000	50%	$ 3,175,000	$ 317,500	$ 2,857,500	$ -	$ 2,857,500	$ -
1.2.40	Park Development	McCowan District Park, Phase 2 - Design	2018 - 2018	$ 425,000	$ -	$ 425,000	0%	$ -	$ 42,500	$ 382,500	$ -	$ 382,500	$ -
1.2.41	Park Development	McCowan District Park, Phase 2 - Construction	2018 - 2018	$ 4,950,000	$ -	$ 4,950,000	0%	$ -	$ 495,000	$ 4,455,000	$ -	$ 4,455,000	$ -
1.2.42	Park Development	Ward 5 Park Improvements - S42	2018 - 2018	$ 220,000	$ 220,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.43	Park Development	Red Canoe DOLA - S42	2018 - 2018	$ 485,000	$ 485,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.44	Park Development	St Andrew Playground Improvements - S42	2018 - 2018	$ 573,000	$ 573,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.45	Park Development	Widmer @ Adelaide - S42	2018 - 2018	$ 1,000,000	$ 1,000,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.46	Park Development	90 Stadium Road Trail & Path - S37	2018 - 2018	$ 700,000	$ 700,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.47	Park Development	Bellevue Park - Additional funding - S42	2018 - 2018	$ 905,000	$ 905,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.48	Park Development	Market Ln Parkette & S Market Pk Dvt Design - S42	2018 - 2018	$ 400,000	$ 400,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.49	Park Development	Market Ln Parkette & S Pk Devt Construction - S42	2018 - 2019	$ 3,275,000	$ 3,275,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.50	Park Development	318 Queens Quay W Pk Development Design	2018 - 2018	$ 800,000	$ -	$ 800,000	0%	$ -	$ 80,000	$ 720,000	$ -	$ 720,000	$ -
1.2.51	Park Development	318 Queens Quay West Pk Development Construction	2018 - 2021	$ 10,000,000	$ -	$ 10,000,000	0%	$ -	$ 1,000,000	$ 9,000,000	$ -	$ 9,000,000	$ -
1.2.52	Park Development	Coronation Pk Design & Implementation - S42	2018 - 2019	$ 1,225,000	$ 1,225,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.53	Park Development	Ward 3 Park Improvements	2018 - 2018	$ 160,000	$ -	$ 160,000	0%	$ -	$ 16,000	$ 144,000	$ -	$ 144,000	$ -
1.2.54	Park Development	Grand Manitoba FY2014 (Mystic)	2018 - 2018	$ 175,000	$ 175,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.55	Park Development	Dane Park Design	2018 - 2018	$ 100,000	$ -	$ 100,000	0%	$ -	$ 10,000	$ 90,000	$ -	$ 90,000	$ -
1.2.56	Park Development	Dane Park Construction	2018 - 2018	$ 858,000	$ 58,000	$ 800,000	0%	$ -	$ 80,000	$ 720,000	$ -	$ 720,000	$ -
1.2.57	Park Development	Carlaw-Dundas Parkette	2018 - 2018	$ 500,000	$ -	$ 500,000	0%	$ -	$ 50,000	$ 450,000	$ -	$ 450,000	$ -
1.2.58	Park Development	Lambton Kingsway - Park Improvements S42/Donation	2018 - 2018	$ 400,000	$ 400,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.59	Park Development	Ward 3 Park Improvements FY2015 S42	2018 - 2018	$ 500,000	$ 500,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.60	Park Development	Coronation Park - Park Improvements	2018 - 2018	$ 400,000	$ -	$ 400,000	90%	$ 360,000	$ 4,000	$ 36,000	$ -	$ 36,000	$ -
1.2.61	Park Development	Lisgar Park Phase 2 and 3 - Construction S42	2018 - 2018	$ 1,205,000	$ 1,205,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -

APPENDIX D.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PARKS AND RECREATION

	Project Name	Subproject Name	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
							BTE[1] %	Replacement & BTE Shares	10% Reduction		Prior Growth[2]	2018 2027	Post 2027
1.2.62	Park Development	10 Ordnance Street Development - Design S42	2018 - 2018	$ 300,000	$ 300,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.63	Park Development	Mouth of the Creek Design S37	2018 - 2018	$ 150,000	$ 150,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.64	Park Development	Mouth of the Creek Construction Ph. 1 S37/S45	2018 - 2020	$ 6,900,000	$ 4,209,000	$ 2,691,000	0%	$ -	$ 269,100	$ 2,421,900	$ -	$ 2,421,900	$ -
1.2.65	Park Development	Mouth of the Creek Construction Phase 2	2019 - 2020	$ 3,100,000	$ -	$ 3,100,000	0%	$ -	$ 310,000	$ 2,790,000	$ -	$ 2,790,000	$ -
1.2.66	Park Development	Corktown Parks S42	2018 - 2018	$ 1,500,000	$ 700,000	$ 800,000	0%	$ -	$ 80,000	$ 720,000	$ -	$ 720,000	$ -
1.2.67	Park Development	West Birkdale Pk & Birkdale Ravine Improvement S37	2018 - 2018	$ 408,000	$ 408,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.68	Park Development	Master Planning PF&R FY2015-DIGS	2018 - 2018	$ 330,000	$ -	$ 330,000	0%	$ -	$ 33,000	$ 297,000	$ -	$ 297,000	$ -
1.2.69	Park Development	Silverhill Park - Construction Phase S42	2018 - 2018	$ 350,000	$ 350,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.70	Park Development	705 Progress Avenue - Ph 1 Park Development	2018 - 2021	$ 1,509,000	$ -	$ 1,509,000	0%	$ -	$ 150,900	$ 1,358,100	$ -	$ 1,358,100	$ -
1.2.71	Park Development	705 Progress Avenue - Ph 2 Park Development	2020 - 2021	$ 700,000	$ -	$ 700,000	0%	$ -	$ 70,000	$ 630,000	$ -	$ 630,000	$ -
1.2.72	Park Development	Moss Park - Master Plan Study S42	2018 - 2018	$ 200,000	$ 200,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.73	Park Development	Moss Park 519 Partnership	2018 - 2018	$ 400,000	$ -	$ 400,000	90%	$ 360,000	$ 4,000	$ 36,000	$ -	$ 36,000	$ -
1.2.74	Park Development	Lisgar Park/W Queen W Triangle Additional Funding	2018 - 2018	$ 236,000	$ 236,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.75	Park Development	Wells Hill Lawn Bowling Clubhouse/Wychwood Reno	2018 - 2018	$ 600,000	$ -	$ 600,000	50%	$ 300,000	$ 30,000	$ 270,000	$ -	$ 270,000	$ -
1.2.76	Park Development	Liberty Village Park Improvements S42 AR CIL	2018 - 2018	$ 464,000	$ 464,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.77	Park Development	Manor Road Church - New Park Development S42	2018 - 2018	$ 500,000	$ 500,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.78	Park Development	June Rowlands Park - Phase 2 S42	2018 - 2018	$ 350,000	$ 350,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.79	Park Development	Glebe Manor Park - Upgrades S42	2018 - 2020	$ 200,000	$ 200,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.80	Park Development	10 Ordnance Street Development - Construction S42	2018 - 2018	$ 4,200,000	$ 4,200,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.81	Park Development	Ramsden Park - Phase 2 Park Development S42	2018 - 2018	$ 3,500,000	$ 3,500,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.82	Park Development	Master Planning PF&R FY2017	2018 - 2018	$ 400,000	$ -	$ 400,000	0%	$ -	$ 40,000	$ 360,000	$ -	$ 360,000	$ -
1.2.83	Park Development	Ward 17 Improvements (Bert Robinson Park)	2018 - 2018	$ 400,000	$ -	$ 400,000	0%	$ -	$ 40,000	$ 360,000	$ -	$ 360,000	$ -
1.2.84	Park Development	Tiverton Parkette Improvements	2018 - 2018	$ 270,000	$ -	$ 270,000	0%	$ -	$ 27,000	$ 243,000	$ -	$ 243,000	$ -
1.2.85	Park Development	Coronation Pk Design & Implementation	2018 - 2018	$ 825,000	$ -	$ 825,000	50%	$ 412,500	$ 41,250	$ 371,250	$ -	$ 371,250	$ -
1.2.86	Park Development	Heathrow Park - Heathrow Drive Entrance	2018 - 2018	$ 170,000	$ -	$ 170,000	0%	$ -	$ 17,000	$ 153,000	$ -	$ 153,000	$ -
1.2.87	Park Development	Northern Linear Park Development	2018 - 2018	$ 800,000	$ -	$ 800,000	0%	$ -	$ 80,000	$ 720,000	$ -	$ 720,000	$ -
1.2.88	Park Development	144 Balsam Ave - Parkette Development	2018 - 2018	$ 325,000	$ -	$ 325,000	0%	$ -	$ 32,500	$ 292,500	$ -	$ 292,500	$ -
1.2.89	Park Development	Mallow Park- Development	2018 - 2018	$ 215,000	$ -	$ 215,000	0%	$ -	$ 21,500	$ 193,500	$ -	$ 193,500	$ -
1.2.90	Park Development	Moorevale Park Improvements	2018 - 2018	$ 1,500,000	$ -	$ 1,500,000	0%	$ -	$ 150,000	$ 1,350,000	$ -	$ 1,350,000	$ -
1.2.91	Park Development	Ward 10 Park Improvements S42	2018 - 2018	$ 500,000	$ 500,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.92	Park Development	Lessard Park- Sandbox & Shade Structure S42	2018 - 2018	$ 100,000	$ 100,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.93	Park Development	Glasgow Street Parkette - Park Improvements	2018 - 2018	$ 300,000	$ 300,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.94	Park Development	St. Patrick's Square - Park Improvements S37	2018 - 2018	$ 300,000	$ 300,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.95	Park Development	Ward 23 Park Improvements S42	2018 - 2018	$ 700,000	$ 700,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.96	Park Development	Ward 32 Park Improvements S42	2018 - 2018	$ 190,000	$ 190,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.97	Park Development	Ward 33 Park Improvements S37 & S42	2018 - 2018	$ 810,000	$ 810,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.98	Park Development	Ward 39 Park Improvements S37 & S42	2018 - 2018	$ 658,000	$ 658,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.99	Park Development	Horsley Hill Park Improvements S37	2018 - 2018	$ 56,000	$ 56,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.100	Park Development	Bellevue Square Park Additional Funding FY2017 S42	2018 - 2018	$ 814,000	$ 814,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.101	Park Development	David Crombie Park Revitalization Design S42	2018 - 2018	$ 200,000	$ 200,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.102	Park Development	Dundas - St. Clarens Parkette Improvements S42	2018 - 2018	$ 100,000	$ 100,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.103	Park Development	Toronto Island Master Plan	2018 - 2018	$ 425,000	$ -	$ 425,000	20%	$ 85,000	$ 34,000	$ 306,000	$ -	$ 306,000	$ -
1.2.104	Park Development	Community Services and Facilities Studies	2018 - 2018	$ 380,000	$ -	$ 380,000	20%	$ 76,000	$ 30,400	$ 273,600	$ -	$ 273,600	$ -
1.2.105	Park Development	Edwards Gardens - Garden Study Additional Funding	2018 - 2018	$ 225,000	$ -	$ 225,000	20%	$ 45,000	$ 18,000	$ 162,000	$ -	$ 162,000	$ -

APPENDIX D.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PARKS AND RECREATION

Project Name	Subproject Name	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
						BTE[1] %	Replacement & BTE Shares	10% Reduction		Prior Growth[2]	2018 2027	Post 2027
1.2.106 Park Development	150 Harrison Street New Park	2018 - 2018	$ 200,000	$ -	$ 200,000	0%	$ -	$ 20,000	$ 180,000	$ -	$ 180,000	$ -
1.2.107 Park Development	Ward 36 Park Improvements S42	2018 - 2018	$ 75,000	$ 75,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.108 Park Development	Eglinton Park Master Plan - Midtown in Focus	2018 - 2018	$ 175,000	$ -	$ 175,000	20%	$ 35,000	$ 14,000	$ 126,000	$ -	$ 126,000	$ -
1.2.109 Park Development	Ward 33 PB Pilot Projects FY2017	2018 - 2018	$ 150,000	$ -	$ 150,000	0%	$ -	$ 15,000	$ 135,000	$ -	$ 135,000	$ -
1.2.110 Park Development	Ward 35 PB Pilot Projects FY2017	2018 - 2018	$ 160,000	$ -	$ 160,000	0%	$ -	$ 16,000	$ 144,000	$ -	$ 144,000	$ -
1.2.111 Park Development	Ward 12 PB Pilot Projects FY2017	2018 - 2018	$ 235,000	$ -	$ 235,000	0%	$ -	$ 23,500	$ 211,500	$ -	$ 211,500	$ -
1.2.112 Park Development	Moss Park Development	2020 - 2020	$ 15,000,000	$ 9,900,000	$ 5,100,000	0%	$ -	$ 510,000	$ 4,590,000	$ -	$ -	$ 4,590,000
1.2.113 Playgrounds/Waterplay	Centre Island West - Wading Pool Conversion	2018 - 2018	$ 550,000	$ -	$ 550,000	40%	$ 221,000	$ 32,900	$ 296,100	$ -	$ 296,100	$ -
1.2.114 Playgrounds/Waterplay	Greenbrae Circuit Park Playground/Splash Pad^	2018 - 2018	$ 500,000	$ -	$ 500,000	0%	$ -	$ 50,000	$ 450,000	$ -	$ 450,000	$ -
1.2.115 Playgrounds/Waterplay	Alexandra Park - Wading Pool Conversion	2018 - 2018	$ 550,000	$ -	$ 550,000	26%	$ 143,600	$ 40,640	$ 365,760	$ -	$ 365,760	$ -
1.2.116 Playgrounds/Waterplay	MacGregor Park - Wading Pool Conversion	2018 - 2018	$ 175,000	$ -	$ 175,000	25%	$ 43,800	$ 13,120	$ 118,080	$ -	$ 118,080	$ -
1.2.117 Playgrounds/Waterplay	Fred Hamilton Playground Wading Pool Conversion	2019 - 2019	$ 150,000	$ -	$ 150,000	25%	$ 37,500	$ 11,250	$ 101,250	$ -	$ 101,250	$ -
1.2.118 Playgrounds/Waterplay	Healy Willan Park-Playground Upgrades S42	2018 - 2018	$ 125,000	$ 125,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.119 Playgrounds/Waterplay	Glenn Gould Park-Playground Area Improvements S42	2018 - 2018	$ 300,000	$ 300,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.120 Playgrounds/Waterplay	Lionel Conacher-Additional Spray Pad Features S42	2018 - 2018	$ 200,000	$ 200,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.121 Playgrounds/Waterplay	Kennedy-Margdon Park - Playground Improvements S42	2018 - 2018	$ 200,000	$ 200,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.122 Playgrounds/Waterplay	St. James Park - Additional Funds S42	2018 - 2018	$ 200,000	$ 200,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.123 Playgrounds/Waterplay	Masseygrove Playground & Splash Pad	2018 - 2018	$ 970,000	$ -	$ 970,000	0%	$ -	$ 97,000	$ 873,000	$ -	$ 873,000	$ -
1.2.124 Playgrounds/Waterplay	Centre Island Waterplay - Additional Funding	2018 - 2018	$ 750,000	$ -	$ 750,000	0%	$ -	$ 75,000	$ 675,000	$ -	$ 675,000	$ -
1.2.125 Playgrounds/Waterplay	Garland Park - New Playground	2018 - 2018	$ 150,000	$ -	$ 150,000	0%	$ -	$ 15,000	$ 135,000	$ -	$ 135,000	$ -
1.2.126 Playgrounds/Waterplay	Ravina Gardens-Wading Pool Conversion	2018 - 2018	$ 430,000	$ 430,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.127 Playgrounds/Waterplay	Fairmount Park Playground Upgrade S42	2018 - 2018	$ 300,000	$ 300,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.128 Playgrounds/Waterplay	Kennedy-Margdon Park - Additional Funding	2018 - 2018	$ 61,000	$ -	$ 61,000	0%	$ -	$ 6,100	$ 54,900	$ -	$ 54,900	$ -
1.2.129 Playgrounds/Waterplay	St. James Park - Additional Funds FY2017 S42	2018 - 2018	$ 1,270,000	$ 1,270,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.130 Playgrounds/Waterplay	Lakeshore Village Park S42	2018 - 2018	$ 230,000	$ 230,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.131 Playgrounds/Waterplay	Gledhill Park - Splash Pad Upgrade	2023 - 2024	$ 550,000	$ -	$ 550,000	34%	$ 186,100	$ 36,390	$ 327,510	$ -	$ -	$ 327,510
1.2.132 Trails & Pathways	Maryvale Pk-Foot Bridge from Murray Glen Dr^	2019 - 2020	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ 100,000	$ 900,000	$ -	$ 900,000	$ -
1.2.133 Trails & Pathways	East Don Trail Ext. Wards 29,31,34^	2018 - 2018	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ 100,000	$ 900,000	$ -	$ 900,000	$ -
1.2.134 Trails & Pathways	Upper Highland Creek Trail Ext.Ph. 3-5^	2018 - 2018	$ 1,400,000	$ -	$ 1,400,000	0%	$ -	$ 140,000	$ 1,260,000	$ -	$ 1,260,000	$ -
1.2.135 Trails & Pathways	Tommy Thompson Park	2019 - 2020	$ 7,802,690	$ 7,802,690	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.136 Trails & Pathways	East Don Trail Ph 1 Construction	2018 - 2018	$ 4,000,000	$ -	$ 4,000,000	0%	$ -	$ 400,000	$ 3,600,000	$ -	$ 3,600,000	$ -
1.2.137 Trails & Pathways	Humber Bay Shores Park Construction - PF&R/Transp	2018 - 2018	$ 500,000	$ 250,000	$ 250,000	50%	$ 125,000	$ 12,500	$ 112,500	$ -	$ 112,500	$ -
1.2.138 Trails & Pathways	Pan Am Path	2018 - 2018	$ 1,775,000	$ 1,775,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.139 Trails & Pathways	Cedarcrest - New Pathway	2018 - 2018	$ 70,000	$ -	$ 70,000	0%	$ -	$ 7,000	$ 63,000	$ -	$ 63,000	$ -
1.2.140 Trails & Pathways	York Beltline Trail Improvements	2018 - 2018	$ 942,000	$ 942,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.141 Trails & Pathways	Beltline Trail "Stations" - S42	2018 - 2018	$ 500,000	$ 500,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.142 Trails & Pathways	Fort York Path	2018 - 2018	$ 400,000	$ -	$ 400,000	0%	$ -	$ 40,000	$ 360,000	$ -	$ 360,000	$ -
1.2.143 Trails & Pathways	South Mimico Trail	2018 - 2018	$ 525,000	$ -	$ 525,000	0%	$ -	$ 52,500	$ 472,500	$ -	$ 472,500	$ -
1.2.144 Trails & Pathways	Cedarcrest - New Pathway Additional Funding	2018 - 2018	$ 200,000	$ -	$ 200,000	50%	$ 100,000	$ 10,000	$ 90,000	$ -	$ 90,000	$ -
1.2.145 Trails & Pathways	Sherway Trail	2018 - 2018	$ 325,000	$ -	$ 325,000	0%	$ -	$ 32,500	$ 292,500	$ -	$ 292,500	$ -
1.2.146 Trails & Pathways	Green Line Study & Plan	2018 - 2018	$ 375,000	$ -	$ 375,000	20%	$ 75,000	$ 30,000	$ 270,000	$ -	$ 270,000	$ -
1.2.147 Trails & Pathways	Green Line Design & Construction	2018 - 2019	$ 800,000	$ -	$ 800,000	0%	$ -	$ 80,000	$ 720,000	$ -	$ 720,000	$ -
1.2.148 Trails & Pathways	Beltline Trail Access in Moore Park Ravine	2018 - 2018	$ 600,000	$ -	$ 600,000	50%	$ 300,000	$ 30,000	$ 270,000	$ -	$ 270,000	$ -

APPENDIX D.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PARKS AND RECREATION

Project Name	Subproject Name	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
						BTE[1] %	Replacement & BTE Shares	10% Reduction		Prior Growth[2]	2018 2027	Post 2027
1.2.149 Trails & Pathways	S Keelesdale Pk-Stair Improvt NE Corner Eglinton	2020 - 2020	$ 300,000	$ -	$ 300,000	50%	$ 150,000	$ 15,000	$ 135,000	$ -	$ -	$ 135,000
1.2.150 Environmental Initiatives	Community Gardens	2018 - 2018	$ 100,000	$ -	$ 100,000	0%	$ -	$ 10,000	$ 90,000	$ -	$ 90,000	$ -
1.2.151 Environmental Initiatives	Community Garden (Green Line) - Construction	2018 - 2018	$ 300,000	$ -	$ 300,000	0%	$ -	$ 30,000	$ 270,000	$ -	$ 270,000	$ -
1.2.152 Environmental Initiatives	Rouge Park - Beare Road Project Design	2018 - 2018	$ 150,000	$ -	$ 150,000	0%	$ -	$ 15,000	$ 135,000	$ -	$ 135,000	$ -
1.2.153 Environmental Initiatives	Rouge Park - Beare Road Construction	2018 - 2019	$ 1,350,000	$ -	$ 1,350,000	0%	$ -	$ 135,000	$ 1,215,000	$ -	$ 1,215,000	$ -
1.2.154 Environmental Initiatives	Lindylou Park- Community Flower Gardens	2018 - 2018	$ 60,000	$ -	$ 60,000	0%	$ -	$ 6,000	$ 54,000	$ -	$ 54,000	$ -
1.2.155 Environmental Initiatives	Community Gardens	2018 - 2027	$ 900,000	$ -	$ 900,000	0%	$ -	$ 90,000	$ 810,000	$ -	$ -	$ 810,000
1.2.156 Bayside Phase 2 Water's Edge Promenade (Underpass Park)		2019 - 2021	$ 9,252,536	$ 9,252,536	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.157 Don River Park		2018 - 2018	$ 27,810,000	$ 27,084,956	$ 725,044	0%	$ -	$ 72,504	$ 652,540	$ -	$ 652,540	$ -
1.2.158 Sherbourne Common		2018 - 2018	$ 31,500,000	$ 26,857,138	$ 4,642,862	0%	$ -	$ 464,286	$ 4,178,576	$ 479,552	$ 3,699,024	$ -
1.2.159 Waters Edge Promenade and Boardwalk (EBF)		2018 2021	$ 66,434,755	$ 14,750,277	$ 51,684,478	0%	$ -	$ 5,168,448	$ 46,516,030	$ 2,861,876	$ 43,654,154	$ -
1.2.160 Piers (EBF)		2018 - 2018	$ 467,575	$ 467,575	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.161 Parliament Wave Deck		2018 2019	$ 15,000,000	$ 649,933	$ 14,350,067	0%	$ -	$ 1,435,007	$ 12,915,060	$ 5,255	$ 12,909,805	$ -
1.2.162 Aitken Place Park		2018 - 2018	$ 4,879,416	$ -	$ 4,879,416	0%	$ -	$ 487,942	$ 4,391,474	$ 711,155	$ 3,680,319	$ -
1.2.163 Canada's Sugar Beach		2018 - 2018	$ 14,166,335	$ 13,484,714	$ 681,621	0%	$ -	$ 68,162	$ 613,459	$ 101,400	$ 512,059	$ -
1.2.164 Community Centre (EBF)		2018 - 2021	$ 15,000,000	$ -	$ 15,000,000	0%	$ -	$ 1,500,000	$ 13,500,000	$ -	$ 13,500,000	$ -
1.2.165 Waters Edge Public Realm (CWF WaveDecks & Promenade)		2018 - 2018	$ 18,252,232	$ 14,147,858	$ 4,104,374	0%	$ -	$ 410,437	$ 3,693,937	$ 718,265	$ 2,975,672	$ -
1.2.166 Martin Goodman Trail Improvements (Lower Spadina, Stadium Road, Ontario Place, Coronation Park, Mari		2018 - 2018	$ 11,743,145	$ 8,152,436	$ 3,590,709	0%	$ -	$ 359,071	$ 3,231,638	$ -	$ 3,231,638	$ -
1.2.167 Western Beaches Watercourse		2018 - 2018	$ 22,365,011	$ 18,441,000	$ 3,924,011	0%	$ -	$ 392,401	$ 3,531,610	$ -	$ 3,531,610	$ -
1.2.168 Fort York Pedestrian Bridge		2018 - 2018	$ 21,229,890	$ 9,232,956	$ 11,996,934	0%	$ -	$ 1,199,693	$ 10,797,241	$ 990,492	$ 9,806,749	$ -
1.2.169 York Quay Revitalization		2018 - 2018	$ 12,485,380	$ 8,323,586	$ 4,161,794	0%	$ -	$ 416,179	$ 3,745,615	$ -	$ 3,745,615	$ -
1.2.170 John Quay Revitalization		2018 - 2018	$ 5,294,131	$ 3,489,669	$ 1,804,462	0%	$ -	$ 180,446	$ 1,624,016	$ -	$ 1,624,016	$ -
1.2.171 Cherry Beach Improvements		2018 - 2018	$ 2,398,704	$ 1,829,008	$ 569,696	0%	$ -	$ 56,970	$ 512,726	$ -	$ 512,726	$ -
1.2.172 Regional Sports Complex		2018 - 2018	$ 32,410,153	$ 1,688,784	$ 30,721,369	0%	$ -	$ 3,072,137	$ 27,649,232	$ -	$ 27,649,232	$ -
1.2.173 Silo Park (Keating precinct)		2021 - 2023	$ 16,816,450	$ -	$ 16,816,450	0%	$ -	$ 1,681,645	$ 15,134,805	$ -	$ 15,134,805	$ -
1.2.174 Silo Waters Edge Promenade (Keating precinct)		2021 - 2023	$ 7,200,000	$ -	$ 7,200,000	0%	$ -	$ 720,000	$ 6,480,000	$ -	$ 6,480,000	$ -
1.2.175 WE Promenade: Parl. Slip East Side		2018 - 2022	$ 11,511,025	$ -	$ 11,511,025	0%	$ -	$ 1,151,103	$ 10,359,922	$ -	$ 10,359,922	$ -
1.2.176 WE Promenade: Keating Channel N Side Parl. Slip to re-aligned Cherry Street		2018 - 2022	$ 13,734,000	$ -	$ 13,734,000	0%	$ -	$ 1,373,400	$ 12,360,600	$ -	$ 12,360,600	$ -
1.2.177 Jack Layton Ferry Terminal		2018 - 2022	$ 3,739,500	$ -	$ 3,739,500	26%	$ 979,700	$ 275,980	$ 2,483,820	$ -	$ 2,483,820	$ -
1.2.178 Jack Layton Ferry Terminal Builidng and Docks		2018 - 2027	$ 51,110,683	$ -	$ 51,110,683	26%	$ 13,391,000	$ 3,771,968	$ 33,947,715	$ -	$ 33,947,715	$ -
1.2.179 Harbour Square Park		2018 - 2027	$ 19,334,568	$ -	$ 19,334,568	50%	$ 9,667,300	$ 966,727	$ 8,700,541	$ -	$ 8,700,541	$ -
1.2.180 York Ramp Park		2018 - 2023	$ 14,486,990	$ -	$ 14,486,990	0%	$ -	$ 1,448,699	$ 13,038,291	$ -	$ 13,038,291	$ -
1.2.181 Rees Street Park		2018 - 2023	$ 18,955,614	$ -	$ 18,955,614	0%	$ -	$ 1,895,561	$ 17,060,053	$ -	$ 17,060,053	$ -
1.2.182 Park Construction (Promontory Park South; River Park North & South)		2018 - 2023	$ 79,393,562	$ 79,393,562	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
1.2.183 Foot of Yonge Park		2018 - 2023	$ 12,180,603	$ -	$ 12,180,603	0%	$ -	$ 1,218,060	$ 10,962,543	$ -	$ 10,962,543	$ -
1.2.184 LCBO Park		2018 - 2023	$ 18,523,166	$ -	$ 18,523,166	0%	$ -	$ 1,852,317	$ 16,670,849	$ -	$ 3,316,684	$ 13,354,165
1.2.185 Villiers Island Community Centre		2018 - 2025	$ 35,990,500	$ -	$ 35,990,500	0%	$ -	$ 3,599,050	$ 32,391,450	$ -	$ -	$ 32,391,450
1.2.186 Leslie Street Greening (West Side)		2018 - 2025	$ 18,231,960	$ -	$ 18,231,960	0%	$ -	$ 1,823,196	$ 16,408,764	$ -	$ -	$ 16,408,764
1.2.187 Leslie Slip Lookout		2018 - 2025	$ 8,509,200	$ -	$ 8,509,200	0%	$ -	$ 850,920	$ 7,658,280	$ -	$ -	$ 7,658,280
1.2.188 Don Greenway South		2018 - 2025	$ 56,906,995	$ -	$ 56,906,995	0%	$ -	$ 5,690,700	$ 51,216,295	$ -	$ -	$ 51,216,295
1.2.189 Rail Deck Park		2022 - 2025	$ 1,665,000,000	$ -	$ 1,665,000,000	0%	$ -	$ 166,500,000	$1,498,500,000	$ -	$ -	$ 1,498,500,000

APPENDIX D.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PARKS AND RECREATION

Project Name	Subproject Name	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: BTE[1] %	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 10% Reduction	Total Development Related Costs	Development Related Costs: Prior Growth[2]	Development Related Costs: 2018 2027	Development Related Costs: Post 2027
1.2.190 Villiers Island Parkland Development		2026 - 2027	$ 16,400,000	$ -	$ 16,400,000	0%	$ -	$ 1,640,000	$ 14,760,000	$ -	$ -	$ 14,760,000
1.2.191 Turning Basin Dockwall Upgrades		2026 - 2027	$ 1,665,030	$ -	$ 1,665,030	0%	$ -	$ 166,503	$ 1,498,527	$ -	$ -	$ 1,498,527
1.2.192 McCleary Park Expansion and Community Hub		2026 - 2027	$ 12,656,000	$ -	$ 12,656,000	0%	$ -	$ 1,265,600	$ 11,390,400	$ -	$ -	$ 11,390,400
1.2.193 McCleary District Local Park		2026 - 2027	$ 1,518,720	$ -	$ 1,518,720	0%	$ -	$ 151,872	$ 1,366,848	$ -	$ -	$ 1,366,848
1.2.194 Turning Basin Park + Waters Edge Promenade (western edge)		2026 - 2027	$ 7,417,820	$ -	$ 7,417,820	0%	$ -	$ 741,782	$ 6,676,038	$ -	$ -	$ 6,676,038
1.2.195 Full Implementation of Don Roadway Linear Park		2026 - 2027	$ 1,666,416	$ -	$ 1,666,416	0%	$ -	$ 166,642	$ 1,499,774	$ -	$ -	$ 1,499,774
1.2.196 Leslie Street Greening (East Side)		2026 - 2027	$ 4,527,360	$ -	$ 4,527,360	0%	$ -	$ 452,736	$ 4,074,624	$ -	$ -	$ 4,074,624
1.2.197 Essroc Silo		2023 - 2030	$ 8,648,949	$ -	$ 8,648,949	0%	$ -	$ 864,895	$ 7,784,054	$ -	$ -	$ 7,784,054
1.2.198 York Promondate and Sundial Folly Park		2023 - 2031	$ 26,945,810	$ -	$ 26,945,810	0%	$ -	$ 2,694,581	$ 24,251,229	$ -	$ -	$ 24,251,229
1.2.199 Harbour Square Park Promonade and Bridge		2025 - 2031	$ 28,500,735	$ -	$ 28,500,735	50%	$ 14,250,400	$ 1,425,034	$ 12,825,301	$ -	$ -	$ 12,825,301
Subtotal Park Development and Amenities			$ 2,634,634,609	$ 304,853,678	$ 2,329,780,930		$ 48,795,200	$ 228,098,574	$2,052,887,156	$ 5,867,995	$ 335,290,572	$ 1,711,728,589
1.3 Special Facilities												
1.3.1 Special Facilities	Allan Gardens Washroom Building Construction - S42	2018 - 2018	$ 700,000	$ 700,000	$ -	50%	$ -	$ -	$ -	$ -	$ -	$ -
1.3.2 Special Facilities	Allan Gardens Washroom-Additional FundsS37/S45/S42	2018 - 2018	$ 11,000,000	$ 11,000,000	$ -	50%	$ -	$ -	$ -	$ -	$ -	$ -
1.3.3 Special Facilities	Centennial Park S Ski Hill- T-Bar Lift Replacement	2018 - 2018	$ 350,000	$ -	$ 350,000	90%	$ 315,000	$ 3,500	$ 31,500	$ -	$ 31,500	$ -
1.3.4 Special Facilities	Ferry Boat Replacement #1	2018 - 2019	$ 12,150,000	$ -	$ 12,150,000	90%	$ 10,935,000	$ 121,500	$ 1,093,500	$ -	$ 1,093,500	$ -
1.3.5 Special Facilities	New Ferry Boat #2	2019 - 2021	$ 12,150,000	$ -	$ 12,150,000	90%	$ 10,935,000	$ 121,500	$ 1,093,500	$ -	$ 1,093,500	$ -
1.3.6 Special Facilities	Ferry Boat Replacement #3	2025 - 2026	$ 12,150,000	$ -	$ 12,150,000	90%	$ 10,935,000	$ 121,500	$ 1,093,500	$ -	$ -	$ 1,093,500
1.3.7 Special Facilities	High Pk Forestry School Building Phase 2 S37	2018 - 2018	$ 200,000	$ 200,000	$ -	90%	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Special Facilities			$ 48,700,000	$ 11,900,000	$ 36,800,000		$ 33,120,000	$ 368,000	$ 3,312,000	$ -	$ 2,218,500	$ 1,093,500
1.4 Parks and Recreation Fleet & Equipment												
1.4.1 Park Development	Fleet - Tree Planting Partnership	2018 - 2019	$ 689,000	$ -	$ 689,000	0%	$ -	$ 68,900	$ 620,100	$ -	$ 620,100	$ -
1.4.2 Park Development	Fleet - Forest Health Care	2018 - 2018	$ 22,000	$ -	$ 22,000	0%	$ -	$ 2,200	$ 19,800	$ -	$ 19,800	$ -
1.4.3 Park Development	Fleet - Trees in Parks Area Maintenance	2018 - 2019	$ 1,657,000	$ -	$ 1,657,000	0%	$ -	$ 165,700	$ 1,491,300	$ -	$ 1,491,300	$ -
1.4.4 Park Development	Fleet - Trees in Natural Areas Maintenance	2018 - 2018	$ 50,000	$ -	$ 50,000	0%	$ -	$ 5,000	$ 45,000	$ -	$ 45,000	$ -
1.4.5 Park Development	Fleet-Area Maintenance (Ph 2 of Tree Serv. 2011)	2018 - 2019	$ 1,886,000	$ -	$ 1,886,000	0%	$ -	$ 188,600	$ 1,697,400	$ -	$ 1,697,400	$ -
1.4.6 Special Facilities	Centennial Pk Ski Hill - Snow Making Equipment	2018 - 2018	$ 100,000	$ -	$ 100,000	0%	$ -	$ 10,000	$ 90,000	$ -	$ 90,000	$ -
1.4.7 Park Development	Guildwood Park Service Vehicles	2018 - 2018	$ 135,000	$ -	$ 135,000	0%	$ -	$ 13,500	$ 121,500	$ -	$ 121,500	$ -
1.4.8 Park Development	Fleet - Horticulture Service Level	2018 - 2018	$ 200,000	$ -	$ 200,000	0%	$ -	$ 20,000	$ 180,000	$ -	$ 180,000	$ -
1.4.9 Park Development	McCowan District Park - Ice Resurfacer Equipment	2018 - 2018	$ 100,000	$ -	$ 100,000	0%	$ -	$ 10,000	$ 90,000	$ -	$ 90,000	$ -
Subtotal Parks and Recreation Fleet & Equipment			$ 4,839,000	$ -	$ 4,839,000		$ -	$ 483,900	$ 4,355,100	$ -	$ 4,355,100	$ -
1.5 Parks and Recreation: Facilities Master Plan												
1.5.1 Indoor Pool Additions - West Waterfront Pool Addition		2018 - 2022	$ 21,840,000	$ -	$ 21,840,000	0%	$ -	$ 2,184,000	$ 19,656,000	$ -	$ 19,656,000	$ -
1.5.2 Indoor Pool Additions - Scadding Court (Replacement/Enhancement)		2018 - 2022	$ 21,840,000	$ -	$ 21,840,000	50%	$ 10,920,000	$ 1,092,000	$ 9,828,000	$ -	$ 9,828,000	$ -
1.5.3 Gymnasium Additions - Provision for New Addition (Location TBD)		2018 - 2027	$ 16,000,000	$ -	$ 16,000,000	0%	$ -	$ 1,600,000	$ 14,400,000	$ -	$ 14,400,000	$ -
1.5.4 Program Space Additions - Jenner Jean Marie		2018 - 2022	$ 3,050,000	$ -	$ 3,050,000	0%	$ -	$ 305,000	$ 2,745,000	$ -	$ 2,745,000	$ -
1.5.5 Bike Parks (incl. starters gates)		2018 - 2022	$ 750,000	$ -	$ 750,000	0%	$ -	$ 75,000	$ 675,000	$ -	$ 675,000	$ -
1.5.6 BMX Features		2018 - 2022	$ 500,000	$ -	$ 500,000	0%	$ -	$ 50,000	$ 450,000	$ -	$ 450,000	$ -
1.5.7 DOLAs		2018 - 2022	$ 819,000	$ -	$ 819,000	0%	$ -	$ 81,900	$ 737,100	$ -	$ 737,100	$ -
1.5.8 Skating Trails		2018 - 2022	$ 1,545,000	$ -	$ 1,545,000	0%	$ -	$ 154,500	$ 1,390,500	$ -	$ 1,390,500	$ -

APPENDIX D.1
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PARKS AND RECREATION

	Project Name	Subproject Name	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
							BTE[1] %	Replacement & BTE Shares	10% Reduction		Prior Growth[2]	2018 2027	Post 2027
1.5.9	Major CRC Redevelopment/Enhancement - Multiple Locations		2018 - 2027	$ 112,000,000	$ -	$ 112,000,000	53%	$ 59,198,600	$ 5,280,140	$ 47,521,260	$ -	$ -	$ 47,521,260
1.5.10	Arena Repurposing (Location TBD)		2018 - 2027	$ 5,000,000	$ -	$ 5,000,000	33%	$ 1,650,000	$ 335,000	$ 3,015,000	$ -	$ -	$ 3,015,000
1.5.11	Splash pads		2018 - 2027	$ 3,393,000	$ -	$ 3,393,000	0%	$ -	$ 339,300	$ 3,053,700	$ -	$ -	$ 3,053,700
1.5.12	Wading Pool Conversions (to splash pads)		2018 - 2027	$ 2,827,500	$ -	$ 2,827,500	50%	$ 1,413,800	$ 141,370	$ 1,272,330	$ -	$ -	$ 1,272,330
1.5.13	Artificial Ice Rinks (AIRs)		2018 - 2027	$ 4,680,000	$ -	$ 4,680,000	0%	$ -	$ 468,000	$ 4,212,000	$ -	$ -	$ 4,212,000
1.5.14	Outdoor Recreation Centre (ORC) Enhancement		2018 - 2027	$ 20,000,000	$ -	$ 20,000,000	75%	$ 15,000,000	$ 500,000	$ 4,500,000	$ -	$ -	$ 4,500,000
1.5.15	Multi-Use Fields – Art Turf with lights		2018 - 2027	$ 7,200,000	$ -	$ 7,200,000	0%	$ -	$ 720,000	$ 6,480,000	$ -	$ -	$ 6,480,000
1.5.16	Soccer Fields – Full, no lights		2018 - 2027	$ 1,040,000	$ -	$ 1,040,000	0%	$ -	$ 104,000	$ 936,000	$ -	$ -	$ 936,000
1.5.17	Soccer Fields – Full, no lights (Conversion)		2018 - 2027	$ 1,040,000	$ -	$ 1,040,000	75%	$ 780,000	$ 26,000	$ 234,000	$ -	$ -	$ 234,000
1.5.18	Soccer Fields – Mini		2018 - 2027	$ 110,000	$ -	$ 110,000	0%	$ -	$ 11,000	$ 99,000	$ -	$ -	$ 99,000
1.5.19	Soccer Fields – Mini (Conversion)		2018 - 2027	$ 110,000	$ -	$ 110,000	75%	$ 82,500	$ 2,750	$ 24,750	$ -	$ -	$ 24,750
1.5.20	Cricket Pitches		2018 - 2027	$ 902,000	$ -	$ 902,000	0%	$ -	$ 90,200	$ 811,800	$ -	$ -	$ 811,800
1.5.21	Sports Field Improvement (Enhancement)		2018 - 2027	$ 10,800,000	$ -	$ 10,800,000	0%	$ -	$ 1,080,000	$ 9,720,000	$ -	$ -	$ 9,720,000
1.5.22	Sports Field Bubbles (Stadium sites)		2018 - 2027	$ 2,500,000	$ -	$ 2,500,000	0%	$ -	$ 250,000	$ 2,250,000	$ -	$ -	$ 2,250,000
1.5.23	Fieldhouses		2018 - 2027	$ 1,008,200	$ -	$ 1,008,200	0%	$ -	$ 100,820	$ 907,380	$ -	$ -	$ 907,380
1.5.24	Clubhouses		2023 - 2027	$ 1,551,000	$ -	$ 1,551,000	0%	$ -	$ 155,100	$ 1,395,900	$ -	$ -	$ 1,395,900
1.5.25	Tennis Court Complexes (4) with lights		2018 - 2027	$ 1,500,000	$ -	$ 1,500,000	0%	$ -	$ 150,000	$ 1,350,000	$ -	$ -	$ 1,350,000
1.5.26	Tennis Court Complexes (2) no lights		2018 - 2027	$ 580,000	$ -	$ 580,000	0%	$ -	$ 58,000	$ 522,000	$ -	$ -	$ 522,000
1.5.27	Basketball Courts – full		2018 - 2027	$ 2,100,000	$ -	$ 2,100,000	0%	$ -	$ 210,000	$ 1,890,000	$ -	$ -	$ 1,890,000
1.5.28	Basketball Courts – half (Conversion)		2018 - 2027	$ 480,000	$ -	$ 480,000	75%	$ 360,000	$ 12,000	$ 108,000	$ -	$ -	$ 108,000
1.5.29	Skateboard Parks - Community		2018 - 2027	$ 2,200,000	$ -	$ 2,200,000	0%	$ -	$ 220,000	$ 1,980,000	$ -	$ -	$ 1,980,000
1.5.30	Skateboard Parks - Skate Spot		2018 - 2027	$ 2,750,000	$ -	$ 2,750,000	0%	$ -	$ 275,000	$ 2,475,000	$ -	$ -	$ 2,475,000
1.5.31	Program Space Additions - Provision for Future Space (Location TBD)		2023 - 2027	$ 3,050,000	$ -	$ 3,050,000	0%	$ -	$ 305,000	$ 2,745,000	$ -	$ -	$ 2,745,000
1.5.32	Indoor Pool Additions - Provision for New Additional (Location TBD)		2023 - 2027	$ 21,840,000	$ -	$ 21,840,000	0%	$ -	$ 2,184,000	$ 19,656,000	$ -	$ -	$ 19,656,000
1.5.33	Arena Redevelopment - Provision for Twin Pad (Location TBD)		2023 - 2027	$ 23,660,000	$ -	$ 23,660,000	33%	$ 7,807,800	$ 1,585,220	$ 14,266,980	$ -	$ -	$ 14,266,980
1.5.34	Large Multi-Component CRCs -Central Etobicoke		2023 - 2027	$ 40,000,000	$ -	$ 40,000,000	0%	$ -	$ 4,000,000	$ 36,000,000	$ -	$ -	$ 36,000,000
1.5.35	Mid-Sized CRCs - Downtown North & North Rexdale		2023 - 2027	$ 52,000,000	$ -	$ 52,000,000	0%	$ -	$ 5,200,000	$ 46,800,000	$ -	$ -	$ 46,800,000
	Subtotal Parks and Recreation: Facilities Master Plan			$ 390,665,700	$ -	$ 390,665,700		$ 97,212,700	$ 29,345,300	$ 264,107,700	$ -	$ 49,881,600	$ 214,226,100
TOTAL PARKS AND RECREATION				**$ 3,638,054,716**	**$ 483,180,419**	**$ 3,154,874,297**		**$ 232,470,400**	**$ 292,240,391**	**$2,630,163,506**	**$ 5,867,995**	**$ 679,425,522**	**$ 1,944,869,989**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments
2 Prior Growth includes DCs that have already been collected and applied to projects

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	95%	$645,454,246
10-Year Growth in Population in New Units		252,790
Unadjusted Development Charge Per Capita		**$2,553.32**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	5%	$33,971,276
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$242.31**

2018 - 2027 Net Funding Envelope	$679,425,522

HEMSON

APPENDIX D.1
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PARKS AND RECREATION
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

PARKS AND RECREATION	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	($164,844.5)	($227,981.1)	($259,634.0)	($276,570.8)	($272,734.7)	($261,265.4)	($201,390.3)	($136,737.2)	($71,012.5)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Parks And Recreation: Non Inflated	$236,211.27	$122,506.1	$91,813.8	$72,820.5	$53,089.5	$46,821.7	$5,590.6	$5,590.6	$5,590.6	$5,419.6	**$645,454.2**
- Parks And Recreation: Inflated	$236,211.3	$124,956.2	$95,523.1	$77,277.7	$57,465.8	$51,695.0	$6,295.9	$6,421.8	$6,550.3	$6,476.9	**$668,873.9**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$75,778.6	$72,333.2	$76,920.7	$74,691.9	$76,185.7	$77,709.4	$79,263.6	$80,848.9	$78,535.8	$80,106.5	**$772,374.5**
INTEREST											
- Interest on Opening Balance	$0.0	($9,066.4)	($12,539.0)	($14,279.9)	($15,211.4)	($15,000.4)	($14,369.6)	($11,076.5)	($7,520.5)	($3,905.7)	**($102,969.4)**
- Interest on In-year Transactions	($4,411.9)	($1,447.1)	($511.6)	($71.1)	$327.6	$455.3	$1,276.9	$1,302.5	$1,259.7	$1,288.5	**($531.2)**
TOTAL REVENUE	$71,366.7	$61,819.6	$63,870.2	$60,340.9	$61,301.9	$63,164.3	$66,171.0	$71,074.9	$72,275.0	$77,489.4	**$668,873.9**
CLOSING CASH BALANCE	($164,844.5)	($227,981.1)	($259,634.0)	($276,570.8)	($272,734.7)	($261,265.4)	($201,390.3)	($136,737.2)	($71,012.5)	($0.0)	

2018 Adjusted Charge Per Capita	**$2,795.23**

Allocation of Capital Program	
Residential Sector	95.0%
Non-Residential Sector	5.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX D.1
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PARKS AND RECREATION
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

PARKS AND RECREATION	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.00	($8,941.07)	($12,280.68)	($14,134.07)	($15,022.95)	($14,818.09)	($14,210.74)	($11,054.94)	($7,646.82)	($3,970.93)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Parks And Recreation: Non Inflated	$12,432.17	$6,447.69	$4,832.31	$3,832.66	$2,794.19	$2,464.30	$294.24	$294.24	$294.24	$285.24	**$33,971.3**
- Parks And Recreation: Inflated	$12,432.2	$6,576.6	$5,027.5	$4,067.2	$3,024.5	$2,720.8	$331.4	$338.0	$344.8	$340.9	**$35,203.9**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$3,730.4	$3,805.0	$3,881.1	$3,958.7	$4,037.9	$4,118.7	$4,201.0	$4,285.1	$4,370.8	$4,458.2	**$40,846.8**
INTEREST											
- Interest on Opening Balance	$0.0	($491.8)	($675.4)	($777.4)	($826.3)	($815.0)	($781.6)	($608.0)	($420.6)	($218.4)	**($5,614.4)**
- Interest on In-year Transactions	($239.3)	($76.2)	($31.5)	($3.0)	$17.7	$24.5	$67.7	$69.1	$70.5	$72.1	**($28.5)**
TOTAL REVENUE	$3,491.1	$3,237.0	$3,174.1	$3,178.4	$3,229.4	$3,328.1	$3,487.2	$3,746.1	$4,020.6	$4,311.8	**$35,203.9**
CLOSING CASH BALANCE	($8,941.1)	($12,280.7)	($14,134.1)	($15,022.9)	($14,818.1)	($14,210.7)	($11,054.9)	($7,646.8)	($3,970.9)	($0.0)	

2018 Adjusted Charge Per Employee	**$266.08**

Allocation of Capital Program	
Residential Sector	95.0%
Non-Residential Sector	5.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D.2

Library

HEMSON

Appendix D.2

Library
Technical Appendix

The Toronto Public Library provides services from approximately 100 library branches and ancillary buildings across the City. The Library provides a wide range of resources in a variety of formats as well as a number of programs to City residents.

This appendix provides a brief outline of historical service levels for Library Services, the 2018–2027 development-related capital program, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff and are based upon proposed and approved capital budgets, previous DC Background Studies, and other long range planning documents.

The following discusses the individual components included in the Library service category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital Forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 3	Cash Flow Analysis

A. Historical Service Levels and Calculation of 10-Year Average Service Levels and Maximum Allowable Charges

Library services are currently provided through over 100 library branches and ancillary buildings valued at $1,093.85 million in 2017. The building replacement unit cost includes the cost of the building itself (including design, site servicing, and construction) and also the cost of replacing furniture, furnishings and equipment. The replacement cost for the Merril and Osborne Collections and the Toronto Reference Library warrant a higher unit cost due to specialized storage and environmental control systems.

The land associated with each library building is also included in Table 1. The size of the land provided is the exact footprint of the building using site plans. The replacement value for the lands associated were taken from a database of City-owned real estate assets that was provided by the City's Facilities and Real Estate Division. In total, the replacement cost of the land associated with library buildings amounts to $570.47 million.

The average cost for collection materials is $41 per unit. This is based on the average cost to purchase new materials and includes a provision for cataloguing. The current collection holds 13.49 million items valued at $548.78 million. Library vehicles have also been included in the level of service analysis. The vehicles are largely used to transport collection materials from the processing centre to the branches. In 2017 there were 44 vehicles valued at $3.06 million. Finally, IT and software assets have been included at a total value of $24.37 million.

Table 1 provides a summary of the level of service and the calculation of the ten-year historic service level. The calculation of the maximum allowable funding envelope is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$867.71
Net Population Growth (2018 – 2027)	252,955
Maximum Allowable Funding Envelope	$219,491,837
Less: Ten per cent Legislated Reduction	$21,949,184
Discounted Maximum Allowable Funding Envelope	**$197,542,653**

The existing facilities have been examined and consideration has been made with regard to whether or not "excess capacity" exists within the City's infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no "uncommitted excess capacity" exists within the City's Library infrastructure, and as such, no adjustments have been made to the service level calculations.

B. The Development-Related Capital Program

The 2018–2027 development-related capital forecast includes a wide variety of projects for the provision of library services in the City and amounts to a total gross cost of $486.70 million. The identified capital projects will result, in

whole or in part, in increased capacity to meet the servicing needs of new development.

The first section of the Library capital forecast recovers for new construction as well as renovations and expansions to several existing library branches. These projects total to $233.78 million.

The second section of the Library capital forecast is for development-related library equipment including virtual branch services, which provide web-based access to library services. Self-service circulation and three phases of the technology asset management program have also been included. In total, the equipment purchases amount to $54.80 million.

Toronto Public Library intends to expand its collection materials in order to keep pace with past service levels and to serve future development. The additional library materials are based on the requirements generated by the expansions of current library facilities and also further additions throughout the library system. The additional materials amount to $197.52 million. Finally, development-related studies account for additional $600,000 of the capital program.

Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City's "excess capacity" other than excess capacity which is "committed". "Excess capacity" is undefined in the DCA, but is considered to relate to the capacity available to meet some or all of the increase in need for service in order to potentially represent a deduction. For Library services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and feasibility work associated with planning new facilities. It is recognized that no "surplus" of capacity exists within Library services.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

Only two grants are identified in the entire Library capital forecast and are related to the renovation of the Bridlewood Library and the Agincourt Building

Elements. Both of these projects are anticipated to be fully funded by Section 37 contributions.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development. Generally speaking, shares have been deducted from the net cost of projects that account for portions of the project that relate to state of good repair or the replacement or reconstruction of existing facilities. Those projects that are completely new are deemed to be entirely growth-related and no replacement shares have been deducted from the net cost.

The benefit to existing and replacement shares are based on the increase servicing capacity arising from renovations and expansions, resulting in servicing results in new layouts and increased efficiencies. The replacement share for library materials reflects that some of the materials will replace existing library material already in circulation.

In total, $342.61 million is identified as the replacement and benefit to existing share.

3. Legislated Ten Per Cent Reduction

As this service is not identified in Section 5 (5) of the DCA, a 10 per cent reduction to the net municipal costs, less the replacement/benefit to existing shares, is made to each project.

In total, $14.13 million is identified as the ten per cent reduction share.

4. Post-2027 Benefit

The total development related costs of the Library capital program, $127.13 million, is within the net funding envelope of $197.54 million. As such, the entire development related costs are eligible for recovery in the ten-year planning period from 2018 to 2027. As such, no costs are deemed to be of post period benefit.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $127.13 million is included in the development charge calculation.

D. Calculation Of Residential And Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 95 per cent to residential development as these facilities are primarily provided for and planned for use by the residential community. A nominal 5 per cent allocation is made for non-residential development recognizing that library facilities are used by employees working within the City of Toronto.

Table 2 displays the 95 per cent allocation to the residential sector, or $120.78 million, and 5 per cent to the non-residential sector, or $6.36 million. The resulting unadjusted charge per capita is $477.78 before cash flow adjustments. The unadjusted non-residential charge per employee amounts to $45.34.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee non-residential development charges. After cash flow consideration, the residential calculated charge increases to $490.53 per capita. The non-residential charge after cash flow increases to $46.69 per employee.

The following table summarizes the calculation of the Library Services development charge.

LIBRARY SUMMARY						
10-year Hist.	2018 - 2027		Unadjusted		**Adjusted**	
Service Level	Development-Related Capital Program		Development Charge		**Development Charge**	
per capita	Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$867.71	$486,701,991	$127,134,217	$477.78	$45.34	**$490.53**	**$46.69**

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC LIBRARY

BUILDINGS	# of Square Feet										UNIT COST
Branch Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/sq. ft.)
281 Front Street	54,643	54,643	54,643	54,643	54,643	54,643	54,643	54,643	-	-	$524
1076 Ellesmere	20,400	20,400	20,400	20,400	20,400	20,400	20,400	66,934	66,934	66,934	$524
Martin Ross Building	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	$524
Agincourt	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,690	27,690	$524
Albert Campbell	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	$524
Albion	32,279	32,279	32,279	32,279	32,279	32,279	32,279	32,279	32,279	28,610	$524
Alderwood	7,341	7,341	7,341	7,341	7,341	7,341	7,341	7,341	7,341	7,341	$524
Amesbury Park	6,320	6,320	6,320	6,320	6,320	6,320	6,320	6,320	6,320	6,320	$524
Annette Street	7,806	7,806	7,806	7,806	7,806	7,806	7,806	7,806	7,806	7,806	$524
Armour Heights	2,988	2,988	2,988	2,988	2,988	2,988	2,988	2,988	2,988	2,988	$524
Barbara Frum	39,233	39,233	39,233	44,319	44,319	44,319	44,319	44,319	44,319	44,319	$524
Bayview	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	6,333	$524
Beaches	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	$524
Bendale	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	$524
Black Creek	5,782	5,782	5,782	5,782	5,782	5,782	5,782	5,782	5,782	5,782	$524
Bloor/Gladstone	11,397	20,627	20,627	20,627	20,627	20,627	20,627	20,627	20,627	20,627	$524
Brentwood	13,615	13,615	13,615	13,615	17,500	17,500	17,500	17,500	17,500	17,500	$524
Bridlewood	5,445	5,445	5,445	5,445	8,000	8,000	8,000	8,000	8,000	8,000	$524
Brookbanks	7,933	7,933	7,933	7,933	7,933	7,933	7,933	7,933	7,933	7,933	$524
Burrows Hall	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	$524
Cedarbrae	26,200	26,200	26,200	26,200	26,200	26,200	26,200	26,200	26,200	26,200	$524
Centennial	6,866	6,866	6,866	6,866	6,866	6,866	6,866	6,866	6,866	6,866	$524
City Hall	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	$524
Cliffcrest	4,859	4,859	4,859	4,859	4,859	4,859	4,859	4,859	4,859	4,859	$524
College/Shaw	7,664	7,664	7,664	7,664	7,664	7,664	7,664	7,664	7,664	7,664	$524
Danforth/Coxwell	9,617	9,617	9,617	9,617	9,617	9,617	9,617	9,617	9,617	9,617	$524
Davenport	3,604	3,604	3,604	3,604	3,604	3,604	3,604	3,604	3,604	3,604	$524
Dawes Road	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	$524
Deer Park	40,171	40,171	40,171	40,171	40,171	40,171	40,171	40,171	40,171	40,171	$524
Don Mills	21,563	21,563	21,563	21,563	21,563	21,563	21,563	21,563	21,563	21,563	$524
Downsview	20,016	20,016	20,016	20,016	20,016	20,016	20,016	20,016	20,016	20,016	$524
Dufferin/St. Clair	11,208	11,208	11,208	11,208	11,208	11,208	11,208	11,208	11,208	11,208	$524
Eatonville	12,203	12,203	12,203	12,203	12,203	12,203	12,203	12,203	12,203	12,203	$524
Eglinton Square	4,716	4,716	4,716	4,716	4,716	4,716	4,716	4,716	4,716	10,000	$524

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC LIBRARY

BUILDINGS - cont'd	# of Square Feet										UNIT COST
Branch Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/sq. ft.)
Elmbrook Park	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	$524
Evelyn Gregory	6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	$524
Fairview	64,670	64,670	64,670	64,670	64,670	64,670	67,342	67,342	67,342	67,342	$524
Flemingdon Park	7,250	7,250	7,250	7,250	7,250	7,250	7,250	7,250	7,250	7,250	$524
Forest Hill	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	10,399	$524
Fort York	-	-	-	-	-	-	15,000	15,000	15,000	15,000	$524
Gerrard/Ashdale	6,504	6,504	6,504	6,504	6,504	6,504	6,504	6,504	6,504	6,504	$524
Goldhawk Park	11,200	11,200	11,200	11,200	11,200	11,200	11,200	11,200	11,200	11,200	$524
Guildwood	3,010	3,010	3,010	3,010	3,010	3,010	3,010	3,010	3,010	3,010	$524
High Park	8,850	8,850	8,850	8,850	8,850	8,850	8,850	8,850	8,850	8,850	$524
Highland Creek	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	$524
Hillcrest	7,473	7,473	7,473	7,473	7,473	7,473	7,473	7,473	7,473	7,473	$524
Humber Bay	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	$524
Humber Summit	9,040	9,040	9,040	9,040	9,040	9,040	9,040	9,040	9,040	9,040	$524
Humberwood	5,748	5,748	5,748	5,748	5,748	5,748	5,748	5,748	5,748	5,748	$524
Jane/Dundas	11,648	11,863	11,863	11,863	11,863	11,863	11,863	11,863	11,863	11,863	$524
Jane/Sheppard	3,500	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	$524
Jones	3,636	3,636	3,636	3,636	3,636	3,636	3,636	3,636	3,636	3,636	$524
Kennedy/Eglinton	6,713	7,650	7,650	7,650	7,650	7,650	7,650	7,650	7,650	7,650	$524
Leaside	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	$524
Lillian H. Smith	25,937	25,937	25,937	25,937	25,937	25,937	25,937	25,937	25,937	25,937	$524
Locke	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	11,647	$524
Long Branch	6,418	6,418	6,418	6,418	6,418	6,418	6,418	6,418	6,418	6,418	$524
Main Street	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	$524
Malvern	29,604	29,604	29,604	29,604	29,604	29,604	29,604	29,604	29,604	29,604	$524
Maria A. Shcuka	25,475	25,475	25,475	25,475	25,475	25,475	25,475	25,475	25,475	25,475	$524
Maryvale	4,421	4,421	4,421	4,421	4,421	4,421	5,012	5,012	5,012	5,012	$524
McGregor Park	7,825	7,825	7,825	7,825	7,825	7,825	7,825	7,825	7,825	7,825	$524
Merril Collection	5,888	5,888	5,888	5,888	5,888	5,888	5,888	5,888	5,888	5,888	$629
Mimico Centennial	17,469	17,469	17,469	17,469	17,469	17,469	17,469	17,469	17,469	17,469	$524
Morningside	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	$524
Mount Dennis	11,350	11,350	11,350	11,350	11,350	11,350	11,350	11,350	11,350	11,350	$524
Mount Pleasant	5,829	5,829	5,829	5,829	5,829	5,829	5,829	5,829	5,829	5,829	$524
New Toronto	9,925	9,925	9,925	9,925	9,925	9,925	9,925	9,925	9,925	9,925	$524
North York Central Library	168,022	168,022	168,022	168,022	168,022	168,022	168,022	168,022	168,022	168,022	$524
Northern District	117,452	117,452	117,452	117,452	117,452	117,452	117,452	117,452	117,452	117,452	$524
Northern Elms	3,032	3,032	3,032	3,032	3,032	3,032	3,032	3,890	3,890	3,890	$524
Oakwood Village	17,270	17,270	17,270	17,270	17,270	17,270	17,270	17,270	17,270	17,270	$524
Osborne Collection	7,110	7,110	7,110	7,110	7,110	7,110	7,110	7,110	7,110	7,110	$629
Palmerston	8,493	8,493	8,493	8,493	8,493	8,493	8,493	8,493	8,493	8,493	$524

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC LIBRARY

BUILDINGS - cont'd	**# of Square Feet**										**UNIT COST**
Branch Name	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/sq. ft.)**
Pape/Danforth	8,175	8,175	8,175	8,175	8,175	8,175	8,175	8,175	8,175	8,175	$524
Parkdale	24,083	24,083	24,083	24,083	24,083	24,083	24,083	24,083	24,083	24,083	$524
Parliament Street	14,634	14,634	14,634	14,634	14,634	14,634	14,634	14,634	14,634	14,634	$524
Perth/Dupont	3,627	3,627	3,627	3,627	3,627	3,627	3,627	3,627	3,627	3,627	$524
Pleasant View	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	$524
Port Union	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	$524
Queen/Saulter	2,957	2,957	2,957	2,957	2,957	2,957	2,957	2,957	2,957	2,957	$524
Rexdale	5,088	5,088	5,088	5,088	5,088	5,088	5,088	5,088	5,088	5,088	$524
Richview	47,252	47,252	47,252	47,252	47,252	47,252	47,252	47,252	47,252	47,252	$524
Riverdale	9,658	9,658	9,658	9,658	9,658	9,658	9,658	9,658	9,658	9,658	$524
Runnymede	12,034	12,034	12,034	12,034	12,034	12,034	12,034	12,034	12,034	12,034	$524
S. Walter Stewart	24,317	25,834	25,834	25,834	25,834	25,834	25,834	25,834	25,834	25,834	$524
Sanderson	12,702	12,702	12,702	12,702	12,702	12,702	12,702	12,702	12,702	12,702	$524
Scarborough	-	-	-	-	-	-	-	14,500	14,500	14,500	$524
Spadina Road	3,952	3,952	3,952	3,952	3,952	3,952	3,952	3,952	3,952	3,952	$524
St. Clair/Silverthorn	4,587	4,587	4,587	4,587	4,587	4,587	4,587	4,587	4,587	4,587	$524
St. James Town	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800	$524
St. Lawrence	4,833	4,833	4,833	4,833	4,833	4,833	4,833	4,833	4,833	4,833	$524
Steeles	5,009	5,009	5,009	5,009	5,009	5,009	5,009	5,009	5,009	5,453	$524
Swansea Memorial	1,127	1,127	1,127	1,127	1,127	1,127	1,127	1,127	1,127	1,127	$524
Taylor Memorial	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	$524
Thorncliffe	5,000	5,000	11,570	11,570	11,570	11,570	11,570	11,570	11,570	11,570	$524
Todmorden Room	555	555	555	555	555	555	555	555	555	555	$524
Toronto Reference Library	416,035	416,035	426,570	426,570	426,570	426,570	426,570	434,841	434,841	434,841	$629
Urban Affairs	13,730	13,730	13,730	13,730	-	-	-	-	-	-	$629
Victoria Village	5,383	5,383	5,383	5,383	5,383	5,383	5,383	5,383	5,383	5,383	$524
Weston	11,944	11,944	11,944	11,944	11,944	11,944	11,944	11,944	11,944	11,944	$524
Woodside Square	9,792	9,792	9,792	9,792	9,792	9,792	9,792	9,792	9,792	9,792	$524
Woodview Park	6,658	6,658	6,658	6,658	6,658	6,658	6,658	6,658	6,658	6,658	$524
Wychwood	6,381	6,381	6,381	6,381	6,381	6,381	6,381	6,381	6,381	6,381	$524
York Woods	42,176	42,176	42,176	42,176	42,176	42,176	42,176	42,176	42,176	42,176	$524
Yorkville	9,053	9,053	9,053	9,053	9,053	9,053	9,053	9,053	9,053	9,053	$524
Total (sq.ft.)	**1,931,090**	**1,946,489**	**1,963,594**	**1,968,680**	**1,961,390**	**1,961,390**	**1,979,653**	**2,049,816**	**1,995,863**	**1,997,922**	
Total ($000)	**$1,058,292.7**	**$1,066,361.8**	**$1,076,428.9**	**$1,079,094.0**	**$1,073,835.1**	**$1,073,835.1**	**$1,083,404.9**	**$1,121,037.1**	**$1,092,765.7**	**$1,093,844.7**	

Notes:
Unit cost ($/sq. ft.) includes cost of replacing furniture, furnishings and equipment
Merril Collection and Osborne Collection require a greater unit cost because specialized storage and environmental control systems are required
Toronto Reference Library special collection areas have a greater replacement cost because specialized storage and environmental controls systems are required

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC LIBRARY

LAND	# of Hectares										UNIT COST
Branch Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/ha)
281 Front Street	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.00	$88,450,000
1076 Ellesmere	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	$5,040,000
120 Martin Ross	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	$5,040,000
Agincourt	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	$22,030,000
Albert Campbell	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	$22,030,000
Albion	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	$22,030,000
Alderwood	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	$22,030,000
Amesbury Park	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$22,030,000
Annette Street	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	$22,030,000
Armour Heights	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$22,030,000
Barbara Frum	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	$22,030,000
Bayview	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$22,030,000
Beaches	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	$22,030,000
Bendale	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	$22,030,000
Black Creek	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	$22,030,000
Bloor/Gladstone	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	$22,030,000
Brentwood	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	$22,030,000
Bridlewood	0.05	0.05	0.05	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Brookbanks	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	$22,030,000
Burrows Hall	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$22,030,000
Cedarbrae	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	$22,030,000
Centennial	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	$5,040,000
City Hall	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	$88,450,000
Cliffcrest	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	$22,030,000
College/Shaw	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	$22,030,000
Danforth/Coxwell	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	$22,030,000
Davenport	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	$22,030,000
Dawes Road	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$22,030,000
Deer Park	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	$22,030,000
Don Mills	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	$22,030,000
Downsview	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	$22,030,000
Dufferin/St. Clair	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	$22,030,000
Eatonville	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	$22,030,000
Eglinton Square	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	$22,030,000

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC LIBRARY

LAND - cont'd	# of Hectares										UNIT COST
Branch Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/ha)
Elmbrook Park	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$22,030,000
Evelyn Gregory	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	$22,030,000
Fairview	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	$22,030,000
Flemingdon Park	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Forest Hill	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	$22,030,000
Fort York	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.16	0.16	$88,450,000
Gerrard/Ashdale	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	$22,030,000
Goldhawk Park	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	$22,030,000
Guildwood	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
High Park	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	$22,030,000
Highland Creek	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	$22,030,000
Hillcrest	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	$22,030,000
Humber Bay	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Humber Summit	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	$22,030,000
Humberwood	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	$22,030,000
Jane/Dundas	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	$22,030,000
Jane/Sheppard	0.03	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	$22,030,000
Jones	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$22,030,000
Kennedy/Eglinton	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	$22,030,000
Leaside	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	$22,030,000
Lillian H. Smith	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	$88,450,000
Locke	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	$22,030,000
Long Branch	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	$22,030,000
Main Street	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	$22,030,000
Malvern	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	$22,030,000
Maria A. Shcuka	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	$22,030,000
Maryvale	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	$22,030,000
McGregor Park	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Merril Collection	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$88,450,000
Mimico Centennial	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	$22,030,000
Morningside	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	$22,030,000
Mount Dennis	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Mount Pleasant	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	$22,030,000
New Toronto	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	$22,030,000
North York Central Library	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	$22,030,000
Northern District	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	$22,030,000
Northern Elms	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	$22,030,000
Oakwood Village	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	$22,030,000
Osborne Collection	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$88,450,000
Palmerston	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$88,450,000

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC LIBRARY

LAND - cont'd	# of Hectares										UNIT COST
Branch Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/ha)
Pape/Danforth	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	$22,030,000
Parkdale	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	$22,030,000
Parliament Street	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	$22,030,000
Perth/Dupont	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$22,030,000
Pleasant View	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	$22,030,000
Port Union	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	$22,030,000
Queen/Saulter	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$22,030,000
Rexdale	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	$22,030,000
Richview	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	$22,030,000
Riverdale	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	$22,030,000
Runnymede	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	$22,030,000
S. Walter Stewart	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	$22,030,000
Sanderson	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	$22,030,000
Scarborough	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.16	$22,030,000
Spadina Road	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
St. Clair/Silverthorn	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$22,030,000
St. James Town	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
St. Lawrence	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	$22,030,000
Steeles	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	$22,030,000
Swansea Memorial	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	$22,030,000
Taylor Memorial	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	$22,030,000
Thorncliffe	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	$22,030,000
Todmorden Room	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	$22,030,000
Toronto Reference Library	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	$88,450,000
Urban Affairs	0.13	0.13	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	$88,450,000
Victoria Village	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	$22,030,000
Weston	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	$22,030,000
Woodside Square	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	$22,030,000
Woodview Park	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$22,030,000
Wychwood	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	$22,030,000
York Woods	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	$22,030,000
Yorkville	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	$88,450,000
Total (ha)	**23.55**	**23.69**	**23.69**	**23.71**	**23.58**	**23.58**	**23.75**	**23.92**	**22.97**	**22.97**	
Total ($000)	**$644,092**	**$647,177**	**$647,177**	**$647,617**	**$636,119**	**$636,119**	**$650,491**	**$654,236**	**$570,474**	**$570,474**	

Notes:
Merril Collection, Osborne Collection & Toronto Reference Library Special Collections are located within branches

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC LIBRARY

MATERIALS	**# of Collection Materials**										**UNIT COST**
Type of Collection	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/item)**
Materials at all branches	13,565,784	13,640,130	13,788,409	13,873,534	13,622,702	13,756,450	13,509,662	13,489,572	13,490,091	13,490,091	$41
Total (#)	**13,565,784**	**13,640,130**	**13,788,409**	**13,873,534**	**13,622,702**	**13,756,450**	**13,509,662**	**13,489,572**	**13,490,091**	**13,490,091**	
Total ($000)	**$551,856.1**	**$554,880.5**	**$560,912.5**	**$564,375.4**	**$554,171.5**	**$559,612.4**	**$549,573.1**	**$548,755.8**	**$548,776.9**	**$548,776.9**	

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC LIBRARY

VEHICLES	**# of Vehicles**										**UNIT COST**
Type of Collection	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/item)**
Cube Van	14	14	14	14	14	14	14	14	14	14	$90,548
Bookmobile	2	2	2	2	2	2	2	2	2	2	$356,189
Van	27	27	27	26	24	26	26	26	26	26	$34,758
Van (raise roof) / Sprinter Van	1	1	1	1	2	2	2	2	2	2	$85,975
Pick Up	-	-	-	1	1	-	-	-	-	-	$44,900
Total (#)	**44**	**44**	**44**	**44**	**43**	**44**	**44**	**44**	**44**	**44**	
Total ($000)	**$3,004.5**	**$3,004.5**	**$3,004.5**	**$3,014.6**	**$3,031.1**	**$3,055.7**	**$3,055.7**	**$3,055.7**	**$3,055.7**	**$3,055.7**	

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC LIBRARY

IT Asset Inventory	**# of Units**										**UNIT COST**
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/unit)**
Multifunction Devices for public use only	-	-	-	40	42	56	72	90	124	124	$5,200
Receipt Printers	459	499	498	647	610	590	567	502	476	476	$400
Barcode Scanners	705	743	752	736	736	821	947	1,100	1,252	1,252	$100
RFID antenna/coupler	64	69	209	251	549	615	700	706	743	743	$2,700
RFID receipt printer / card reader	13	13	5	6	6	6	6	6	6	6	$3,100
RFID touch screen	29	31	92	134	133	162	188	190	254	254	$1,500
RFID security gates	10	11	45	53	41	56	57	58	58	58	$12,000
RFID (Tech Logic) (software only)	64	69	209	251	549	615	700	706	743	743	$2,000
Web Crossing	9	9	7	5	1	1	1	1	1	1	$3,300
Web site Gateway interfaces	20	21	21	21	19	19	19	19	19	19	$241,500
Sorters (Branch units)	-	-	1	1	5	7	13	13	13	13	$564,800
Sorter (Ellesmere)	-	-	-	-	-	1	1	1	1	1	$1,800,000
Software Asset Inventory	**$ Value of Units**										
ITC	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	1
Progams & events software (E*vents)	$23,000	$23,000	$28,000	$28,000	$28,000	$28,000	$28,000	$28,000	$28,000	$28,000	1
Endeca	$0	$290,000	$351,000	$351,000	$351,000	$351,000	$351,000	$351,000	$351,000	$351,000	1
Website	$1,063,000	$1,063,000	$1,063,000	$1,985,000	$1,985,000	$1,985,000	$1,985,000	$1,985,000	$1,985,000	$1,985,000	1
CLASS room booking & Salon software	$141,270	$145,270	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	1
PC Booking (Telus)	$169,000	$169,000	$169,000	$169,000	$169,000	$169,000	$169,000	$169,000	$169,000	$169,000	1
Voice based (Talkingtech)	$322,825	$333,825	$333,825	$333,825	$333,825	$333,825	$333,825	$333,825	$333,825	$333,825	1
Content Management sw (digital assets) (Stellent)	$325,080	$385,780	$385,780	$385,780	$385,780	$385,780	$385,780	$385,780	$385,780	$385,780	1
Oracle DB	$220,000	$220,000	$220,000	$220,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	1
Integrated Library System	$1,199,000	$1,199,000	$1,199,000	$1,225,000	$1,225,000	$1,225,000	$1,225,000	$1,225,000	$1,225,000	$1,225,000	1
Total ($000)	**$9,142.7**	**$9,808.2**	**$11,404.3**	**$13,136.5**	**$16,329.8**	**$19,866.4**	**$23,792.3**	**$23,918.4**	**$24,369.9**	**$24,369.9**	

APPENDIX D.2
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
TORONTO PUBLIC LIBRARY

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historic Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048

INVENTORY SUMMARY ($000)

Buildings	$1,058,292.7	$1,066,361.8	$1,076,428.9	$1,079,094.0	$1,073,835.1	$1,073,835.1	$1,083,404.9	$1,121,037.1	$1,092,765.7	$1,093,844.7
Land	$644,092.4	$647,176.6	$647,176.6	$647,617.2	$636,118.7	$636,118.7	$650,491.0	$654,236.1	$570,473.9	$570,473.9
Materials	$551,856.1	$554,880.5	$560,912.5	$564,375.4	$554,171.5	$559,612.4	$549,573.1	$548,755.8	$548,776.9	$548,776.9
Vehicles	$3,004.5	$3,004.5	$3,004.5	$3,014.6	$3,031.1	$3,055.7	$3,055.7	$3,055.7	$3,055.7	$3,055.7
IT Asset Inventory	$9,142.7	$9,808.2	$11,404.3	$13,136.5	$16,329.8	$19,866.4	$23,792.3	$23,918.4	$24,369.9	$24,369.9
Total ($000)	**$2,266,388.3**	**$2,281,231.5**	**$2,298,926.7**	**$2,307,237.6**	**$2,283,486.2**	**$2,292,488.2**	**$2,310,316.9**	**$2,351,003.1**	**$2,239,442.2**	**$2,240,521.1**

SERVICE LEVEL ($/capita)

											Average Service Level
Buildings	$419.06	$419.30	$420.41	$412.64	$407.50	$404.76	$406.21	$415.80	$400.05	$397.32	$410.31
Land	$255.05	$254.47	$252.76	$247.65	$241.40	$239.77	$243.90	$242.66	$208.84	$207.22	$239.37
Materials	$218.52	$218.18	$219.07	$215.81	$210.30	$210.94	$206.06	$203.54	$200.90	$199.33	$210.27
Vehicles	$1.19	$1.18	$1.17	$1.15	$1.15	$1.15	$1.15	$1.13	$1.12	$1.11	$1.15
IT Asset Inventory	$3.62	$3.86	$4.45	$5.02	$6.20	$7.49	$8.92	$8.87	$8.92	$8.85	$6.62
Total ($/capita)	**$897.44**	**$896.99**	**$897.88**	**$882.28**	**$866.54**	**$864.11**	**$866.23**	**$872.01**	**$819.83**	**$813.83**	**$867.71**

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
TORONTO PUBLIC LIBRARY

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2008 - 2017	$867.71
Net Population Growth 2018 - 2027	252,955
Maximum Allowable Funding Envelope	$219,491,837
Less: 10% Legislated Reduction	$21,949,184
Discounted Maximum Allowable Funding Envelope	**$197,542,653**

APPENDIX D.2
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
LIBRARY

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
					BTE[1] %	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2018-2027	Post 2027
2 LIBRARY											
2.1 Buildings, Land & Furnishings											
2.1.1 Sanderson Neighbourhood Library Renovation	2023 - 2027	$ 4,343,000	$ -	$ 4,343,000	78%	$ 3,381,697	$ 96,130	$ 865,172	$ -	$ 865,172	$ -
2.1.2 Albert Campbell District Library Renovation	2018 - 2021	$ 10,990,000	$ -	$ 10,990,000	83%	$ 9,143,865	$ 184,614	$ 1,661,522	$ -	$ 1,661,522	$ -
2.1.3 Parliament Neighbourhood Library Renovation	2018 - 2025	$ 14,038,000	$ -	$ 14,038,000	62%	$ 8,725,096	$ 531,290	$ 4,781,613	$ -	$ 4,781,613	$ -
2.1.4 Weston Neighbourhood Library Renovation	2023 - 2027	$ 7,734,000	$ -	$ 7,734,000	80%	$ 6,167,907	$ 156,609	$ 1,409,484	$ -	$ 1,409,484	$ -
2.1.5 Bayview Neighbourhood Library Renovation & Expansion	2019 - 2021	$ 11,813,000	$ -	$ 11,813,000	27%	$ 3,196,691	$ 861,631	$ 7,754,678	$ -	$ 7,754,678	$ -
2.1.6 St. Clair/Silverthorn Neighbourhood Library Renovation	2018 - 2019	$ 1,864,000	$ -	$ 1,864,000	64%	$ 1,195,954	$ 66,805	$ 601,241	$ -	$ 601,241	$ -
2.1.7 North York Central Library Renovation - Phase I & Phase II	2018 - 2020	$ 10,249,000	$ -	$ 10,249,000	86%	$ 8,784,184	$ 146,482	$ 1,318,334	$ -	$ 1,318,334	$ -
2.1.8 St. Lawrence Neighbourhood Library Renovation	2022 - 2027	$ 16,201,000	$ -	$ 16,201,000	20%	$ 3,193,769	$ 1,300,723	$ 11,706,508	$ -	$ 11,706,508	$ -
2.1.9 Guildwood Neighbourhood Library Renovation	2018 - 2019	$ 776,000	$ -	$ 776,000	50%	$ 386,060	$ 38,994	$ 350,946	$ -	$ 350,946	$ -
2.1.10 Dawes Road Neighbourhood Library Building Acquisition, Renovation & Exp	2018 - 2022	$ 10,094,000	$ -	$ 10,094,000	31%	$ 3,148,397	$ 694,560	$ 6,251,043	$ -	$ 6,251,043	$ -
2.1.11 Northern District Renovation	2020 - 2024	$ 9,140,000	$ -	$ 9,140,000	81%	$ 7,443,935	$ 169,607	$ 1,526,459	$ -	$ 1,526,459	$ -
2.1.12 Wychwood Expansion & Renovation	2018 - 2020	$ 8,303,000	$ -	$ 8,303,000	52%	$ 4,302,726	$ 400,027	$ 3,600,247	$ -	$ 3,600,247	$ -
2.1.13 Bridlewood Expansion & Renovation	2023 - 2024	$ 1,769,000	$ 1,769,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
2.1.14 Perth Dupont Renovation & Expansion	2018 - 2021	$ 3,984,000	$ -	$ 3,984,000	51%	$ 2,029,442	$ 195,456	$ 1,759,102	$ -	$ 1,759,102	$ -
2.1.15 Etobicoke Civic Centre (Library Portion)	2018 - 2020	$ 20,130,451	$ -	$ 20,130,451	0%	$ -	$ 2,013,045	$ 18,117,406	$ -	$ 18,117,406	$ -
2.1.16 Centennial Renovation & Expansion	2018 - 2022	$ 4,136,000	$ -	$ 4,136,000	56%	$ 2,333,497	$ 180,250	$ 1,622,252	$ -	$ 1,622,252	$ -
2.1.17 Agincourt Building Elements	2023 - 2023	$ 1,060,000	$ 1,060,000	$ -	0%	$ -	$ -	$ -	$ -	$ -	$ -
2.1.18 High Park Renovation	2022 - 2025	$ 5,536,000	$ -	$ 5,536,000	75%	$ 4,156,505	$ 137,949	$ 1,241,545	$ -	$ 1,241,545	$ -
2.1.19 Mimico Renovation	2024 - 2027	$ 6,399,000	$ -	$ 6,399,000	79%	$ 5,033,010	$ 136,599	$ 1,229,391	$ -	$ 1,229,391	$ -
2.1.20 Queen Saulter (Port Lands) Renovation - Design	2026 - 2027	$ 118,000	$ -	$ 118,000	0%	$ -	$ 11,800	$ 106,200	$ -	$ 106,200	$ -
2.1.21 Downsview Renovation Phase 2	2018 - 2023	$ 9,538,000	$ -	$ 9,538,000	85%	$ 8,131,000	$ 140,700	$ 1,266,300	$ -	$ 1,266,300	$ -
2.1.22 Richview Renovation	2018 - 2021	$ 3,369,000	$ -	$ 3,369,000	91%	$ 3,066,000	$ 30,300	$ 272,700	$ -	$ 272,700	$ -
2.1.23 York Woods Renovation	2018 - 2021	$ 7,801,000	$ -	$ 7,801,000	85%	$ 6,629,541	$ 117,146	$ 1,054,313	$ -	$ 1,054,313	$ -
2.1.24 Lillian H Smith Renovation	2021 - 2026	$ 11,152,000	$ -	$ 11,152,000	91%	$ 10,148,000	$ 100,400	$ 903,600	$ -	$ 903,600	$ -
2.1.25 Parkdale Reconstruction	2022 - 2027	$ 8,439,000	$ -	$ 8,439,000	66%	$ 5,569,740	$ 286,926	$ 2,582,334	$ -	$ 2,582,334	$ -
2.1.26 Multibranch Renovation Program	2018 - 2027	$ 44,808,000	$ -	$ 44,808,000	92%	$ 41,112,366	$ 369,563	$ 3,326,071	$ -	$ 3,326,071	$ -
Subtotal Buildings, Land & Furnishings		$ 233,784,451	$ 2,829,000	$ 230,955,451		$ 147,279,382	$ 8,367,607	$ 75,308,462	$ -	$ 75,308,462	$ -

APPENDIX D.2
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
LIBRARY

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
					BTE[1] %	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2018-2027	Post 2027
2.2 Equipment											
2.2.1 Virtual Branch Services	2018 - 2027	$ 13,180,000	$ -	$ 13,180,000	10%	$ 1,318,000	$ 1,186,200	$ 10,675,800	$ -	$ 10,675,800	$ -
2.2.2 Integrated Payment Solutions	2018 - 2018	$ 2,218,000	$ -	$ 2,218,000	95%	$ 2,118,000	$ 10,000	$ 90,000	$ -	$ 90,000	$ -
2.2.3 TAMP Automated Sorter Replacement Program	2023 - 2027	$ 3,585,000	$ -	$ 3,585,000	91%	$ 3,262,587	$ 32,241	$ 290,171	$ -	$ 290,171	$ -
2.2.4 Technology Asset Management Program	2018 - 2019	$ 7,676,000	$ -	$ 7,676,000	95%	$ 7,324,894	$ 35,111	$ 315,995	$ -	$ 315,995	$ -
2.2.5 Technology Asset Management Program	2019 - 2027	$ 28,138,000	$ -	$ 28,138,000	97%	$ 27,183,866	$ 95,413	$ 858,721	$ -	$ 858,721	$ -
Subtotal Equipment		$ 54,797,000	$ -	$ 54,797,000		$ 41,207,348	$ 1,358,965	$ 12,230,687	$ -	$ 12,230,687	$ -
2.3 Collection Materials											
2.3.1 Library materials	2018 - 2027	$ 197,520,540	$ -	$ 197,520,540	78%	$ 154,066,021	$ 4,345,452	$ 39,109,067	$ -	$ 39,109,067	$ -
Subtotal Collection Materials		$ 197,520,540	$ -	$ 197,520,540		$ 154,066,021	$ 4,345,452	$ 39,109,067	$ -	$ 39,109,067	$ -
2.4 Studies											
2.4.1 Various development-related studies	2018 - 2027	$ 600,000	$ -	$ 600,000	10%	$ 60,000	$ 54,000	$ 486,000	$ -	$ 486,000	$ -
Subtotal Studies		$ 600,000	$ -	$ 600,000		$ 60,000	$ 54,000	$ 486,000	$ -	$ 486,000	$ -
TOTAL LIBRARY		**$ 486,701,991**	**$ 2,829,000**	**$ 483,872,991**		**$ 342,612,750**	**$ 14,126,024**	**$ 127,134,217**	**$ -**	**$ 127,134,217**	**$ -**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	95%	$120,777,506
10-Year Growth in Population in New Units		252,790
Unadjusted Development Charge Per Capita		**$477.78**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	5%	$6,356,711
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$45.34**

2018 - 2027 Net Funding Envelope	$ 197,542,653

HEMSON

APPENDIX D.2
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
LIBRARY
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

LIBRARY	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.0	($3,255.1)	($10,227.8)	($16,819.7)	($16,785.3)	($15,599.9)	($13,174.0)	($10,653.9)	($7,591.3)	($4,020.7)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Library: Non Inflated	$16,466.13	$18,926.9	$18,614.6	$11,462.9	$10,437.0	$9,428.3	$9,519.8	$9,229.8	$8,417.6	$8,274.5	**$120,777.5**
- Library: Inflated	$16,466.1	$19,305.5	$19,366.6	$12,164.5	$11,297.3	$10,409.7	$10,720.9	$10,602.1	$9,862.5	$9,888.8	**$130,084.0**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$13,298.2	$12,693.6	$13,498.6	$13,107.5	$13,369.6	$13,637.0	$13,909.8	$14,188.0	$13,782.0	$14,057.7	**$135,542.0**
INTEREST											
- Interest on Opening Balance	$0.0	($179.0)	($562.5)	($925.1)	($923.2)	($858.0)	($724.6)	($586.0)	($417.5)	($221.1)	**($5,397.0)**
- Interest on In-year Transactions	($87.1)	($181.8)	($161.4)	$16.5	$36.3	$56.5	$55.8	$62.8	$68.6	$73.0	**($61.0)**
TOTAL REVENUE	$13,211.1	$12,332.7	$12,774.7	$12,198.9	$12,482.7	$12,835.5	$13,241.0	$13,664.7	$13,433.1	$13,909.5	**$130,084.0**
CLOSING CASH BALANCE	($3,255.1)	($10,227.8)	($16,819.7)	($16,785.3)	($15,599.9)	($13,174.0)	($10,653.9)	($7,591.3)	($4,020.7)	$0.0	

2018 Adjusted Charge Per Capita	**$490.53**

Allocation of Capital Program	
Residential Sector	95.0%
Non-Residential Sector	5.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX D.2
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
LIBRARY
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

LIBRARY	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.00	($217.83)	($587.73)	($967.56)	($965.34)	($902.43)	($774.10)	($640.67)	($478.54)	($252.59)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Library: Non Inflated	$866.6	$996.2	$979.7	$603.3	$549.3	$496.2	$501.0	$485.8	$443.0	$435.5	**$6,356.7**
- Library: Inflated	$866.6	$1,016.1	$1,019.3	$640.2	$594.6	$547.9	$564.3	$558.0	$519.1	$520.5	**$6,846.5**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$654.6	$667.7	$681.1	$694.7	$708.6	$722.8	$737.2	$752.0	$767.0	$782.4	**$7,168.2**
INTEREST											
- Interest on Opening Balance	$0.0	($12.0)	($32.3)	($53.2)	($53.1)	($49.6)	($42.6)	($35.2)	($26.3)	($13.9)	**($318.3)**
- Interest on In-year Transactions	($5.8)	($9.6)	($9.3)	$1.0	$2.0	$3.1	$3.0	$3.4	$4.3	$4.6	**($3.4)**
TOTAL REVENUE	$648.8	$646.2	$639.5	$642.4	$657.5	$676.2	$697.7	$720.1	$745.0	$773.0	**$6,846.5**
CLOSING CASH BALANCE	($217.8)	($587.7)	($967.6)	($965.3)	($902.4)	($774.1)	($640.7)	($478.5)	($252.6)	$0.0	

2018 Adjusted Charge Per Employee	**$46.69**

Allocation of Capital Program	
Residential Sector	95.0%
Non-Residential Sector	5.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D.3

Shelter

HEMSON

Appendix D.3

Shelter
Technical Appendix

The Shelter, Support and Housing Administration Division (SSHA) ensures that homeless people and people at the risk of homelessness have a range of shelter and affordable housing options and provides temporary shelter and support for homeless individuals and families, while assisting them to achieve permanent housing solutions. The division's services fall under three main areas including homeless and housing first solutions, social housing system management, and city emergency human services. These services are provided by both City staff and community agencies that SSHA partners with.

This appendix provides a brief outline of historical service levels for Shelter services, the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff.

The following tables discuss the individual components included in the Shelter service category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital Forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 3	Cash Flow Analysis

A. Historical Service Levels, Calculation of Ten-Year Average Service Levels and Maximum Allowable Charges

Currently, Shelter Services provide over 1,745,400 beds nights per year, or 4,780 beds per night per year, of varying shelter types. These unit types include co-ed, family, men's, women's, other permanent, and youth shelters located across the City. The average cost to provide Shelter services in the City is $192,000 per bed per year.

Table 1 provides a summary of the level of service and the calculation of the ten-year historical service level. Also shown on this page is the calculation of the maximum allowable funding envelope, which is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$292.88
Net Population Growth (2018 – 2027)	252,955
Maximum Allowable Funding Envelope	$74,085,546
Less: Ten per cent Legislated Reduction	$7,408,555
Discounted Maximum Allowable Funding Envelope	**$66,676,992**

The existing facilities have been examined and consideration has been made with regard to whether or not “excess capacity” exists within the City’s infrastructure that may be available to partially meet future servicing requirements. It has been determined that no “uncommitted excess capacity” exists within the City’s shelter infrastructure, and as such, no adjustments have been made to the service level calculations.

B. Development-Related Capital Forecast

The 2018–2027 development-related capital forecast includes the provision for new shelter capacity over the planning period. The first two provisions are valued at $12.71 million and $27.71 million, respectively. The third provision is valued at $27.71 million. The department will be completing a Needs Assessment Study in spring 2018 that will be used to inform the exact location and capacity of these facilities.

Paragraph 5 of s.s.5(1) of the *DCA* requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City’s “excess capacity” other than excess capacity which is “committed”. “Excess capacity” is undefined in the *DCA*, but is considered to relate to the capacity available to meet some or all of the increase in need for service in order to potentially represent a deduction. For Shelter services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and feasibility work associated with planning new facilities. It is recognized that no “surplus” of capacity exists within Shelter services.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

No grants, subsidies or other recoveries are anticipated for Shelter services and therefore is not reduced from the DC eligible costs.

2. Replacement and Benefit to Existing Shares

A benefit to existing share of 2 per cent, or $600,000, has been applied to the provision for new shelter capacity from 2019-2021. It is recognized that a portion of an existing shelter may be demolished in order to create additional capacity. This reduction is intended to reflect the existing benefit to the community. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development.

3. Legislated Ten per cent Reduction

As this service is not identified in Section 5(5) of the *DCA*, a ten per cent reduction to the net municipal costs, less the replacement/benefit to existing share, is made to each project.

In total, $6.75 million is identified as the ten per cent reduction share. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development.

4. Post-2027 Benefit

The total development-related costs of the shelter capital forecast – $60.78 million – is within the net funding envelope of $66.68 million. As such, the entire development-related costs are eligible for recovery in the ten-year planning period from 2018 to 2027. Therefore, no costs are deemed to be of post-period benefit.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $60.78 million is included in the development charge calculation.

D. Calculation of Residential And Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been entirely allocated residential development as these facilities are provided and planned by residents of the City.

Table 2 displays the calculation of the unadjusted per capita residential charge. The $60.78 million in discounted development-related net capital costs is allocated to the ten-year population forecast from new building permits, yielding a per capita charge of $240.43 before cash flow adjustments.

E. Cash Flow Analysis

A cash flow analysis is undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the *DCA*. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.0 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per square metre (of GFA) non-residential development charges. After cash flow consideration, the residential calculated charge increases to $246.60 per capita.

The following table summarizes the calculation of the Shelter Services development charge.

SHELTER SUMMARY

10-year Hist. Service Level per pop	2018 - 2027 Development-Related Capital Program Total	Net DC Recoverable	Unadjusted Development Charge $/capita	$/emp	**Adjusted Development Charge $/capita**	**$/emp**
$292.88	$68,130,159	$60,777,143	$240.43	$0.00	**$246.60**	**$0.00**

APPENDIX D.3
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
SHELTER, SUPPORT & HOUSING ADMINISTRATION DIVISION

SHELTER TYPE	**# of Beds per Year**										**UNIT COST**
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/bed)**
COED	103,174	105,117	107,222	117,988	122,622	124,182	123,282	126,273	129,914	149,966	
FAMILY	387,160	408,827	317,425	320,702	338,559	346,199	371,957	368,715	361,230	416,986	
MEN	546,690	561,683	544,794	548,163	560,337	562,933	568,338	572,941	565,828	653,164	
OTHER PERMANENT (1)	20,404	22,940	22,405	23,614	27,282	47,654	55,979	55,200	56,227	64,906	
WOMEN	182,522	181,153	186,470	187,580	191,139	195,828	205,415	207,906	219,036	252,844	
YOUTH	169,074	166,338	168,948	173,351	178,893	170,710	170,931	173,784	179,825	207,581	
Total Number of Beds per Year	**1,409,024**	**1,446,058**	**1,347,264**	**1,371,398**	**1,418,832**	**1,447,506**	**1,495,902**	**1,504,819**	**1,512,060**	**1,745,448**	
Number of Days per Year	*365*	*365*	*365*	*365*	*365*	*365*	*365*	*365*	*365*	*365*	
Total Number of Beds per Night	3,860	3,962	3,691	3,757	3,887	3,966	4,098	4,123	4,143	4,782	$192,000
Total Cost ($000)	**$741,185.2**	**$760,666.1**	**$708,697.8**	**$721,392.9**	**$746,344.5**	**$761,427.8**	**$786,885.4**	**$791,576.0**	**$795,385.0**	**$918,153.5**	

(1) Was seasonal until 2013

APPENDIX D.3
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
SHELTER

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historic Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048

INVENTORY SUMMARY ($000)

Number of Bed	$741,185.2	$760,666.1	$708,697.8	$721,392.9	$746,344.5	$761,427.8	$786,885.4	$791,576.0	$795,385.0	$918,153.5
Total ($000)	**$741,185.2**	**$760,666.1**	**$708,697.8**	**$721,392.9**	**$746,344.5**	**$761,427.8**	**$786,885.4**	**$791,576.0**	**$795,385.0**	**$918,153.5**

SERVICE LEVEL ($/capita)

											Average Service Level
Number of Bed	$293.49	$299.10	$276.79	$275.86	$283.22	$287.01	$295.04	$293.60	$291.18	$333.50	$292.88
Total ($/capita)	**$293.49**	**$299.10**	**$276.79**	**$275.86**	**$283.22**	**$287.01**	**$295.04**	**$293.60**	**$291.18**	**$333.50**	$292.88

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
SHELTER

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2008 - 2017	$292.88
Net Population Growth 2018 - 2027	252,955
Maximum Allowable Funding Envelope	$74,085,546
Less: 10% Legislated Reduction	$7,408,555
Discounted Maximum Allowable Funding Envelope	$66,676,992

APPENDIX D.3
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL PROGRAM
SHELTER

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs	
					BTE[1] %	Replacement & BTE Shares	10% Reduction		2018-2027	Post 2027
3.0 SHELTER										
3.1 New Shelters										
3.1.1 Provision for New Shelter Capacity	2021 - 2023	$ 12,710,053	$ -	$ 12,710,053	0%	$ -	$ 1,271,005	$ 11,439,048	$ 11,439,048	$ -
3.1.2 Provision for New Shelter Capacity	2019 - 2021	$ 27,710,053	$ -	$ 27,710,053	2%	$ 600,000	$ 2,711,005	$ 24,399,048	$ 24,399,048	$ -
3.1.3 Provision for New Shelter Capacity	2022 - 2025	$ 27,710,053	$ -	$ 27,710,053	0%	$ -	$ 2,771,005	$ 24,939,048	$ 24,939,048	$ -
Subtotal New Shelters		$ 68,130,159	$ -	$ 68,130,159		$ 600,000	$ 6,753,016	$ 60,777,143	$ 60,777,143	$ -
TOTAL SHELTER		**$ 68,130,159**	**$ -**	**$ 68,130,159**		**$ 600,000**	**$ 6,753,016**	**$ 60,777,143**	**$ 60,777,143**	**$ -**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	100%	$60,777,143
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$240.43**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	0%	$0
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$0.00**

2018 - 2027 Net Funding Envelope	$ 66,676,992

HEMSON

APPENDIX D.3
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SHELTER
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

SHELTER	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	$6,802.4	$5,073.7	$3,529.8	($2,601.8)	($7,013.8)	($11,753.9)	($12,429.6)	($13,143.1)	($6,816.0)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Shelter: Non Inflated	$0.0	$8,133.0	$8,133.0	$11,946.0	$10,047.8	$10,047.8	$6,234.8	$6,234.8	$0.0	$0.0	**$60,777.1**
- Shelter: Inflated	$0.0	$8,295.7	$8,461.6	$12,677.2	$10,876.0	$11,093.6	$7,021.4	$7,161.8	$0.0	$0.0	**$65,587.2**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$6,685.4	$6,381.5	$6,786.2	$6,589.6	$6,721.3	$6,855.8	$6,992.9	$7,132.7	$6,928.7	$7,067.2	**$68,141.3**
INTEREST											
- Interest on Opening Balance	$0.0	$238.1	$177.6	$123.5	($143.1)	($385.8)	($646.5)	($683.6)	($722.9)	($374.9)	**($2,417.5)**
- Interest on In-year Transactions	$117.0	($52.6)	($46.1)	($167.4)	($114.3)	($116.5)	($0.8)	($0.8)	$121.3	$123.7	**($136.6)**
TOTAL REVENUE	$6,802.4	$6,566.9	$6,917.7	$6,545.7	$6,464.0	$6,353.5	$6,345.6	$6,448.3	$6,327.1	$6,816.0	**$65,587.2**
CLOSING CASH BALANCE	$6,802.4	$5,073.7	$3,529.8	($2,601.8)	($7,013.8)	($11,753.9)	($12,429.6)	($13,143.1)	($6,816.0)	$0.0	

2018 Adjusted Charge Per Capita	**$246.60**

Allocation of Capital Program	
Residential Sector	100.0%
Non-Residential Sector	0.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D.4

Subsidized Housing

HEMSON

Appendix D.4

Subsidized Housing
Technical Appendix

The City's Social Housing Unit is responsible for the funding and administration of social housing programs which include the Toronto Community Housing Corporation (TCHC), private non-profit housing, co-operative housing, private rent supplement programs and housing allowance programs.

This appendix provides a brief outline of historical service levels for Subsidized Housing Services, the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff based on the previous DC background studies, and other long-range planning documents.

The following discusses the individual components included in the Subsidized Housing service category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital Forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 3	Cash Flow Analysis

A. Historical Service Levels and Calculation of 10-Year Average Service Levels and Maximum Allowable Charges

Subsidized Housing currently provides 106,200 units of varying unit types. These unit types include TCHC, community non-profits, community non-profit co-ops, federal non-profit co-ops, private market housing allowance units, affordable rental housing, and affordable ownership housing. The average cost to the City to provide these units is $54,100. The remaining costs are provided primarily through Federal and Provincial grants.

Table 1 provides a summary of the level of service and the calculation of the ten-year historical service level. The calculation of the maximum allowable funding envelope is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$2,132.88
Net Population Growth (2018 – 2027)	252,955
Maximum Allowable Funding Envelope	$539,523,285
Less: Ten per cent Legislated Reduction	$53,952,329
Discounted Maximum Allowable Funding Envelope	**$485,570,957**

The existing facilities have been examined and consideration has been made with regard to whether or not “excess capacity” exists within the City’s infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no “uncommitted excess capacity” exists within the City’s Subsidized Housing infrastructure, and as such, no adjustments have been made to the service level calculations.

B. Development-Related Capital Forecast

The 2018–2027 development-related capital forecast includes a provision for an annual commitment of 1,000 subsidized housing units, including affordable housing, for the next ten years. The capital forecast also provides for an annual commitment of 400 affordable ownership units for the next ten years. In total, the capital forecast amounts to $755.56 million. This is solely the City’s share of the cost of the projects.

Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City’s “excess capacity” other than excess capacity which is “committed”. “Excess capacity” is undefined in the DCA, but is considered to relate to the capacity available to meet some or all of the increase in need for service in order to potentially represent a deduction. For Subsidized Housing services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and feasibility work associated with planning new facilities. It is recognized that no “surplus” of capacity exists within Subsidized Housing services.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

No additional subsidies or other recoveries are anticipated for subsidized housing. The City receives Federal and Provincial grants to fund these programs; however, the costs included in the DC Study are net of these upper-level grants.

2. Replacement and Benefit to Existing Shares

Benefit to existing shares equal to 30 per cent of the net municipal cost have been deducted from the eligible capital costs for almost all projects except for the Choice Based Housing Access System which has a benefit to existing share of 72 per cent. Although all projects included in the capital forecast are development-related and represent additional units beyond the stock currently provided by the City, a deduction was made in recognition of demand for units from the existing population in Toronto. The 30 per cent benefit to existing share was calculated by dividing the units needed to accommodate ten-year population growth by the number of units in the capital forecast. The table below illustrates the calculation methodology.

Summary of Social Housing Benefit to Existing Calculation Methodology	
Current # of Social Housing Units	106,228
# of Units / 1,000 Population in 2015	39
Units required to accommodate 10-year population growth (a)	9,973
New units proposed in capital forecast (b)	14,000
Growth-Related Share (a/b)	70%
Benefit to Existing Share (remaining shares)	30%

Overall, the benefit to existing shares total $228.51 million and have been removed from the calculation. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development.

3. Legislated Ten per cent Reduction

As this service is not identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs, less the replacement/benefit to existing shares, is made to each project.

In total, $52.71 million is identified as the ten per cent reduction share.

4. Post-2027 Benefit

The total development-related costs of the Subsidized Housing capital forecast – $474.35 million – is within the net funding envelope of $485.57 million. As such, the entire development-related costs are eligible for recovery in the ten-year planning period from 2018 to 2027. As such, no costs are deemed to be of post-period benefit.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $474.35 million is included in the development charge calculation.

D. Calculation of Residential And Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been entirely allocated 100 per cent to residential development, as these facilities are provided for and planned for use solely by the residential community.

Table 2 displays the 100 per cent allocation to the residential sector, or $474.35 million. This page also displays the calculation of the unadjusted development charge which yields a per capita charge of $1,876.44 before cash flow adjustments.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and

interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.0 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential development charges. After cash flow consideration, the residential calculated charge decreases to $1,874.51 per capita.

The following table summarizes the calculation of the Subsidized Housing Services development charge.

SUBSIDIZED HOUSING SUMMARY						
10-year Hist.	2018 - 2027		Unadjusted		**Adjusted**	
Service Level	Development-Related Capital Program		Development Charge		**Development Charge**	
per pop	Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$2,132.88	$755,557,000	$474,345,900	$1,876.44	$0.00	**$1,874.51**	**$0.00**

APPENDIX D.4
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
SUBSIDIZED & AFFORDABLE HOUSING

UNIT TYPE[1]	# of units										UNIT COST
Description	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/unit)**
All Unit Types	98,509	99,839	101,453	104,181	104,285	107,013	106,408	105,817	106,202	106,228	$54,100
Total (#)	**98,509**	**99,839**	**101,453**	**104,181**	**104,285**	**107,013**	**106,408**	**105,817**	**106,202**	**106,228**	
Total ($000)	**$5,329,336.9**	**$5,401,289.9**	**$5,488,607.3**	**$5,636,192.1**	**$5,641,818.5**	**$5,789,403.3**	**$5,756,672.8**	**$5,724,699.7**	**$5,745,528.2**	**$5,746,934.8**	

1) Unit types include:
Shelter, Support and Houisng Administration (SSHA): TCHC, Community non-profits, Community non-profit co-ops, private market housing allowance units, and private market rent supplements.
Affordable Housing Office (AHO): New affordable rental and ownership housing, both non-profit and private sector

APPENDIX D.4
TABLE 1

CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
SUBSIDIZED & AFFORDABLE HOUSING
SUPPORTING ANALYSIS

Shelter, Support and Houisng Administration (SSHA) Units	# of units										Unit Cost
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	$/Unit
Social Housing Units (1)	90,949	91,001	90,998	91,069	90,225	89,417	89,039	88,845	88,059	88,059	$59,000
Rent Supplement (2)	5,523	5,811	6,940	8,575	8,635	8,703	8,314	8,108	8,294	8,294	$10,900
Housing Allowances (3)	980	1,200	1,106	1,284	792	3,957	3,788	3,506	3,844	3,844	$3,900
Sub-Total	**97,452**	**98,012**	**99,044**	**100,928**	**99,652**	**102,077**	**101,141**	**100,459**	**100,197**	**100,197**	
Total ($000)	**$5,430,014**	**$5,437,079**	**$5,448,841**	**$5,471,546**	**$5,420,485**	**$5,385,898**	**$5,358,697**	**$5,343,906**	**$5,300,877**	**$5,300,877**	

(1) Are units developed under various government programs by TCHC, private non-profits and co-operatives.
(2) Rent supplements are rental subsidies which are provided, under Agreement with the City, to a landlord and distributed by them to tenants in that building.
(3) Portable housing benefits (usually a flat rate allocation) provided directly to tenants – they are not tied to a particular address.

Affordable Housing Office (AHO) Units	# of units										Unit Cost
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	$/Unit
Affordable Rental (1)	**1,026**	**1,793**	**2,149**	**2,940**	**4,101**	**4,361**	**4,617**	**4,665**	**5,294**	**5,328**	**$59,000**
Affordable Ownership	*54*	*31*	*34*	*260*	*313*	*532*	*575*	*650*	*693*	*711*	
Affordable Ownership (Units Added)	*0*	*26*	*249*	*76*	*242*	*66*	*98*	*66*	*41*	*15*	
Affordable Ownership (Recycled Loans)	*-23*	*-23*	*-23*	*-23*	*-23*	*-23*	*-23*	*-23*	*-23*	*-23*	
Affordable Ownership - Restated Net (2)	**31**	**34**	**260**	**313**	**532**	**575**	**650**	**693**	**711**	**703**	**$40,300**
Sub-Total	**1,057**	**1,827**	**2,409**	**3,253**	**4,633**	**4,936**	**5,267**	**5,358**	**6,005**	**6,031**	
Total ($000)	**$61,783**	**$107,157**	**$137,269**	**$186,074**	**$263,399**	**$280,472**	**$298,598**	**$303,163**	**$340,999**	**$342,683**	
Total	**98,509**	**99,839**	**101,453**	**104,181**	**104,285**	**107,013**	**106,408**	**105,817**	**106,202**	**106,228**	**1,039,935**
Total ($000)	**$5,491,797**	**$5,544,236**	**$5,586,110**	**$5,657,620**	**$5,683,884**	**$5,666,370**	**$5,657,295**	**$5,647,069**	**$5,641,877**	**$5,643,560**	**$56,219,816,800**
										Average Cost per Unit	**$54,061**

APPENDIX D.4
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
SUBSIDIZED & AFFORDABLE HOUSING

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historic Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048

INVENTORY SUMMARY ($000)

Subsidized/Affordable Housing	$5,329,336.9	$5,401,289.9	$5,488,607.3	$5,636,192.1	$5,641,818.5	$5,789,403.3	$5,756,672.8	$5,724,699.7	$5,745,528.2	$5,746,934.8
Total ($000)	**$5,329,336.9**	**$5,401,289.9**	**$5,488,607.3**	**$5,636,192.1**	**$5,641,818.5**	**$5,789,403.3**	**$5,756,672.8**	**$5,724,699.7**	**$5,745,528.2**	**$5,746,934.8**

SERVICE LEVEL ($/capita)

											Average Service Level
Subsidized/Affordable Housing	$2,110.29	$2,123.82	$2,143.65	$2,155.25	$2,140.96	$2,182.21	$2,158.41	$2,123.35	$2,103.36	$2,087.48	$2,132.88
Total ($/capita)	**$2,110.29**	**$2,123.82**	**$2,143.65**	**$2,155.25**	**$2,140.96**	**$2,182.21**	**$2,158.41**	**$2,123.35**	**$2,103.36**	**$2,087.48**	$2,132.88

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
SUBSIDIZED & AFFORDABLE HOUSING

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2008 - 2017	$2,132.88
Net Population Growth 2018 - 2027	252,955
Maximum Allowable Funding Envelope	$539,523,285
Less: 10% Legislated Reduction	$53,952,329
Discounted Maximum Allowable Funding Envelope	$485,570,957

APPENDIX D.4
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL PROGRAM
SUBSIDIZED HOUSING

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs		
					BTE[1] %	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2018-2027	Post 2027
4.0 SUBSIDIZED HOUSING											
4.1 Affordable Rental Housing Units											
4.1.1 Annual Commitment of 1,000 units	2018 - 2018	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
4.1.2 Annual Commitment of 1,000 units	2019 - 2019	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
4.1.3 Annual Commitment of 1,000 units	2020 - 2020	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
4.1.4 Annual Commitment of 1,000 units	2021 - 2021	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
4.1.5 Annual Commitment of 1,000 units	2022 - 2022	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
4.1.6 Annual Commitment of 1,000 units	2023 - 2023	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
4.1.7 Annual Commitment of 1,000 units	2024 - 2024	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
4.1.8 Annual Commitment of 1,000 units	2025 - 2025	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
4.1.9 Annual Commitment of 1,000 units	2026 - 2026	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
4.1.10 Annual Commitment of 1,000 units	2027 - 2027	$ 59,000,000	$ -	$ 59,000,000	30%	$ 17,700,000	$ 4,130,000	$ 37,170,000	$ -	$ 37,170,000	$ -
Subtotal Affordable Rental Housing Units		$ 590,000,000	$ -	$ 590,000,000		$ 177,000,000	$ 41,300,000	$ 371,700,000	$ -	$ 371,700,000	$ -
4.2 Affordable Ownership Units											
4.2.1 Annual Commitment of 400 Units	2018 - 2018	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
4.2.2 Annual Commitment of 400 Units	2019 - 2019	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
4.2.3 Annual Commitment of 400 Units	2020 - 2020	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
4.2.4 Annual Commitment of 400 Units	2021 - 2021	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
4.2.5 Annual Commitment of 400 Units	2022 - 2022	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
4.2.6 Annual Commitment of 400 Units	2023 - 2023	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
4.2.7 Annual Commitment of 400 Units	2024 - 2024	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
4.2.8 Annual Commitment of 400 Units	2025 - 2025	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
4.2.9 Annual Commitment of 400 Units	2026 - 2026	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
4.2.10 Annual Commitment of 400 Units	2027 - 2027	$ 16,120,000	$ -	$ 16,120,000	30%	$ 4,836,000	$ 1,128,400	$ 10,155,600	$ -	$ 10,155,600	$ -
Subtotal Affordable Ownership Units		$ 161,200,000	$ -	$ 161,200,000		$ 48,360,000	$ 11,284,000	$ 101,556,000	$ -	$ 101,556,000	$ -
4.3 Shelter, Support & Housing Administration											
4.3.1 Choice Based Housing Access System	2018 - 2019	$ 4,357,000	$ -	$ 4,357,000	72%	$ 3,146,000	$ 121,100	$ 1,089,900	$ -	$ 1,089,900	$ -
Subtotal Shelter, Support & Housing Administration		$ 4,357,000	$ -	$ 4,357,000		$ 3,146,000	$ 121,100	$ 1,089,900	$ -	$ 1,089,900	$ -
TOTAL SUBSIDIZED HOUSING		**$ 755,557,000**	**$ -**	**$ 755,557,000**		**$ 228,506,000**	**$ 52,705,100**	**$ 474,345,900**	**$ -**	**$ 474,345,900**	**$ -**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	100%	$474,345,900
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$1,876.44**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	0%	$0
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$0.00**

2018 - 2027 Net Funding Envelope	$ 485,570,957

HEMSON

APPENDIX D.4
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SUBSIDIZED HOUSING
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

SUBSIDIZED HOUSING	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	$2,999.1	$2,774.8	$5,259.3	$5,306.7	$5,353.0	$5,398.1	$5,442.0	$5,484.5	$2,817.5	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Subsidized Housing: Non Inflated	$47,870.6	$47,870.6	$47,325.6	$47,325.6	$47,325.6	$47,325.6	$47,325.6	$47,325.6	$47,325.6	$47,325.6	**$474,345.9**
- Subsidized Housing: Inflated	$47,870.6	$48,828.0	$49,237.6	$50,222.3	$51,226.8	$52,251.3	$53,296.3	$54,362.2	$55,449.5	$56,558.5	**$519,302.9**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$50,818.0	$48,507.5	$51,583.9	$50,089.3	$51,091.0	$52,112.9	$53,155.1	$54,218.2	$52,667.0	$53,720.4	**$517,963.5**
INTEREST											
- Interest on Opening Balance	$0.0	$105.0	$97.1	$184.1	$185.7	$187.4	$188.9	$190.5	$192.0	$98.6	**$1,429.2**
- Interest on In-year Transactions	$51.6	($8.8)	$41.1	($3.7)	($3.7)	($3.8)	($3.9)	($4.0)	($76.5)	($78.0)	**($89.8)**
TOTAL REVENUE	$50,869.6	$48,603.7	$51,722.1	$50,269.7	$51,273.1	$52,296.4	$53,340.2	$54,404.7	$52,782.5	$53,741.0	**$519,302.9**
CLOSING CASH BALANCE	$2,999.1	$2,774.8	$5,259.3	$5,306.7	$5,353.0	$5,398.1	$5,442.0	$5,484.5	$2,817.5	$0.0	

2018 Adjusted Charge Per Capita	**$1,874.51**

Allocation of Capital Program	
Residential Sector	100.0%
Non-Residential Sector	0.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D.5

Police

HEMSON

Appendix D.5

Police
Technical Appendix

This appendix provides a brief outline of historical service levels for Police services, the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff and are based upon proposed and approved capital budgets, previous DC background studies, and other long-range planning documents. The portion of the development-related capital forecast included in the calculation of the development charge is the lesser of that identified in the capital forecast and that which would be generated by the application of the average level of service provided over the past ten years.

The following discusses the individual components included in the police service category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital Forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 3	Cash Flow Analysis

A. Historical Service Levels and Calculation of Ten-Year Average Service Levels and Maximum Allowable Charges

Police services are currently provided through 2.51 million square feet of building space associated with Toronto Police Services. The building space in 2017 is valued at $1,253.10 million and is derived by applying a unit cost of $500/square foot to the building space.

The land associated with each police building is also included in Table 1. The replacement value for the lands associated with the police facilities were taken from a database of City-owned real estate assets provided by the City's

Facilities and Real Estate Division. In total, the replacement cost of the land associated with police buildings amounts to $971.51 million.

Vehicles and all police equipment were also included in the level of service calculation. The vehicles add $50.27 million to the inventory and the equipment adds another $236.15 million.

Table 1 provides a summary of the level of service and the calculation of the ten-year historical service level. The calculation of the maximum allowable funding envelope is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$609.55
Net Population & Employment Growth (2018 – 2027)	356,305
Maximum Allowable Funding Envelope	**$217,185,891**

The existing facilities have been examined and consideration has been made with regard to whether or not “excess capacity” exists within the City’s infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no “uncommitted excess capacity” exists within the City’s Police infrastructure, and as such, no adjustments have been made to the service level calculations.

B. Development-Related Capital Forecast

The projects identified in the capital forecast will result, in whole or in part, in increased capacity to meet the servicing needs of new development. The 2018–2027 development-related capital forecast includes the replacement and expansion of two divisions, a disaster recovery site, and the replacement and expansion of other facilities based on strategies to maximize the use of existing facilities by utilizing technology and expending where required. Equipment including new Enterprise Business Intelligence, mobile workstations, and parking handheld APS are also recovered through this capital forecast. The total gross cost of this capital forecast is $219.13 million.

Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City’s “excess capacity” other than excess capacity which is “committed”. “Excess capacity” is undefined in the DCA, but is considered to

relate to the capacity available to meet some or all of the increase in need for service in order to potentially represent a deduction. For Police services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and feasibility work associated with planning new facilities. It is recognized that no “surplus” of capacity exists within Police services.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

No grants, subsidies or other recoveries have been identified to fund any of the development-related projects to be recovered through development charges. As such, no deductions have been made in this regard.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development. Generally speaking, shares have been deducted from the net cost of projects that account for portions of the project that relate to state of good repair or the replacement or reconstruction of existing facilities.

For the buildings that have a replacement and an expansion component to them, the net increment gain in building space is deemed to be the development-related portion of the project, and the remaining is deemed to be the growth-related share. This percentage varies from project to project.

As for the equipment acquisitions, the portion related to the cost of the “current” system or asset that will be replaced is deemed to be the benefit to existing share.

In total, $119.42 million is identified as the replacement and benefit to existing share.

3. Legislated Ten per cent Reduction

As this service is identified in Section 5 (5) of the *DCA*, a ten per cent reduction to the net municipal costs is not required. Therefore, no shares are identified as the legislated ten per cent reduction share.

4. Post-2027 Benefit

The total development-related costs of the police capital forecast - $99.72 million - is within the net funding envelope of $217.19 million. As such, the entire development-related costs are eligible for recovery in the ten-year planning period of 2018 to 2027 of the new DC by-law. No costs are deemed to be of post-period benefit.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $99.72 million is included in the development charge calculation.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 71 per cent to residential development, and 29 per cent to the non-residential sector. This sector allocation is based on future shares of net population and employment growth.

Table 2 displays the 71 per cent allocation to the residential sector, or $70.79 million, and 29 per cent to the non-residential sector, or $28.92 million. The resulting unadjusted charge per capita is $280.04 before cash flow adjustments. The unadjusted non-residential charge per employee amounts to $206.30.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the *DCA*. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee non-residential development charges. After cash flow consideration, the residential calculated charge increases to $290.75 per capita. The non-residential charge after cash flow increases to $214.85 per employee.

The following table summarizes the calculation of the Police Services development charge.

POLICE SUMMARY						
10-year Hist.	2018 - 2027		Unadjusted		**Adjusted**	
Service Level	Development-Related Capital Program		Development Charge		**Development Charge**	
per pop & emp	Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$609.55	$219,131,000	$99,715,000	$280.04	$206.30	**$290.75**	**$214.85**

APPENDIX D.5
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO POLICE SERVICES

BUILDINGS	**# of Square Feet**										**UNIT COST**
Building Name	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/sq. ft.)**
Toronto Police Services Headquarters, 40 College St.	425,000	425,000	425,000	425,000	425,000	425,000	425,000	425,000	425,000	425,000	$500
Central Field Command											
11 Division (previous location)	21,140	21,140	21,130	-	-	-	-	-	-	-	
11 Division, 2054 Davenport Rd.	-	-	-	67,000	67,000	67,000	67,000	67,000	67,000	67,000	$500
12 Division, 200 Trethewey Dr.	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600	31,600	$500
13 Division, 1435 Eglinton Av. W	20,355	20,355	20,355	20,355	20,355	20,355	20,355	20,355	20,355	20,355	$500
14 Division, 150 Harrison St. (previous location)	24,200	24,200	24,200	24,200	24,200	-	-	-	-	-	$500
14 Division, 350 Dovercourt Road	-	-	-	-	54,863	54,863	54,863	54,863	54,863	54,863	$500
14 Sub-Station - CNE, 275 Manitoba Drive	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	$500
51 Division (previous location)	-	-	-	-	-	-	-	-	-	-	$500
51 Division, 51 Parliament St.	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	$500
52 Division, 255 Dundas St. W.	71,677	71,677	71,677	71,677	71,677	71,677	71,677	71,677	71,677	71,677	$500
53 Division, 75 Eglinton Av. W.	52,194	52,194	52,194	52,194	52,194	52,194	52,194	52,194	52,194	52,194	$500
54 Division, 41 Cranfield Rd.	23,530	23,530	23,530	23,530	23,530	23,530	23,530	23,530	23,530	23,530	$500
55 Division, 101 Coxwell Avenue.	23,530	23,530	23,530	23,530	23,530	23,530	23,530	23,530	23,530	23,530	$500
Area Field Command											
22 Division, 3699 Bloor St. W.	32,274	32,274	32,274	32,274	32,274	32,274	32,274	32,274	32,274	32,274	$500
23 Division (previous location)	-	-	-	-	-	-	-	-	-	-	$500
23 Division, 5230 Finch Ave. West	57,264	57,264	57,264	57,264	57,264	57,264	57,264	57,264	57,264	57,264	$500
31 Division, 40 Norfinch Dr.	35,500	35,500	35,500	35,500	35,500	35,500	35,500	35,500	35,500	35,500	$500
32 Division, 30 Ellerslie Av.	47,622	47,622	47,622	47,622	47,622	47,622	47,622	47,622	47,622	47,622	$500
33 Division, 50 Upjohn Rd.	27,900	27,900	27,900	27,900	27,900	27,900	27,900	27,900	27,900	27,900	$500
41 Division, 2222 Eglinton Av. E.	51,080	51,080	51,080	51,080	51,080	51,080	51,080	51,080	51,080	51,080	$500
42 Division, 242 Milner Av. E.	36,620	36,620	36,620	36,620	36,620	36,620	36,620	36,620	36,620	36,620	$500
43 Division (previous location)	-	-	-	-	-	-	-	-	-	-	$500
43 Division, 4331 Lawrence Ave. E	55,450	55,450	55,450	55,450	55,450	55,450	55,450	55,450	55,450	55,450	$500

APPENDIX D.5
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO POLICE SERVICES

BUILDINGS - cont'd	# of Square Feet										UNIT COST
Building Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/sq. ft.)
Detective Services											
Forensic Investigation Service, 2050 Jane St. Bldg A	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	$500
Integrated Guns and Gangs Task Force, Don Mills	70,560	70,560	70,560	70,560	70,560	70,560	70,560	70,560	70,560	70,560	$500
Toronto Drug Squad, 160 Duncan Mills Road	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	$500
Operational Services											
Communications Services, 703 Don Mills Rd. 911 Operations Centre, 703 Don Mills Rd.	44,530	44,530	44,530	44,530	44,530	44,530	44,530	44,530	44,530	44,530	$500
Traffic Services, 45 Strachan	-	-	-	-	-	-	-	-	-	-	$500
Prisoner Transportation Unit, 9 Hanna Avenue Traffic Services, 9 Hanna Avenue Transit Unit, 9 Hanna Avenue	298,000	298,000	298,000	298,000	298,000	298,000	298,000	298,000	298,000	298,000	$500
Emergency Task Force, 300 Lesmill Rd.	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	$500
Marine, 259 Queen's Quay W.	23,035	23,035	23,035	23,035	23,035	23,035	23,035	23,035	23,035	23,035	$500
Mounted and Police Dog Services, 44 Beechwood Dr.	9,440	9,440	9,440	9,440	9,440	9,440	9,440	9,440	9,440	9,440	$500
Parking Enforcement East, 1500 Don Mills Rd.	35,000	35,000	35,000	35,000	35,000	35,000	35,000	-	-	-	$500
Parking Enforcement West, 970 Lawrence Ave West	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	$500
Public Safety and Emergency Management, 4610 Finch Ave E.	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	-	$500
C.O. Bick Police College, 4620 Finch Ave. E.	92,860	-	-	-	-	-	-	-	-	-	$500
Toronto Police College, 70 Birmingham St.	-	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	$500
Bail & Parole Enforcement, 2440 Lawrence Avenue East	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	$500
Fleet & Materials Mgt, 18 Cranfield Road	77,260	77,260	77,260	77,260	77,260	77,260	77,260	77,260	77,260	77,260	$500
Fleet& Materials Mgt, 2050 Jane Street - Bldg B	62,490	62,490	62,490	62,490	62,490	62,490	62,490	62,490	62,490	62,490	$500
Divisional Support Unit, 2126 Kipling Avenue	13,630	13,630	13,630	13,630	13,630	13,630	13,630	13,630	13,630	-	$500
Property Evidence Mgt Unit, 799 Islington Avenue	50,000	50,000	50,000	50,000	50,000	-	-	-	-	-	$500
Property Evidence Mgt Unit, 330 Progress Avenue	-	287,752	287,752	287,752	287,752	287,752	287,752	287,752	287,752	287,752	$500
Network Operations, 951 Wilson Avenue Units 5&6	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	$500
Mounted Unit, CNE Horse Palace	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	$500
Marine Headquarters, 259 Queens Quay West	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	$500
Marine Sub-Station Bluffers Park, 7 Brimley Road	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	$500
Marine Sub-station Humber Bay Marina, 223 Lakeshore Blvd. W.	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	1,610	$500
Police Vehicle Operations, 40 Toryork	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	$500
Professional Standards, 791 Islington Avenue	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	9,200	$500
Cherry Beach Lifeguard Station, Cherry Street Beach	625	625	625	625	625	625	625	625	625	625	$500
Leuty Beach Station, Leuty Avenue	625	625	625	625	625	625	625	625	625	625	$500
Total (sq.ft.)	**2,073,811**	**2,535,703**	**2,535,693**	**2,581,563**	**2,636,426**	**2,562,226**	**2,562,226**	**2,527,226**	**2,527,226**	**2,506,196**	
Total ($000)	**$1,026,335.5**	**$1,257,281.5**	**$1,257,281.5**	**$1,290,781.5**	**$1,318,213.0**	**$1,281,113.0**	**$1,281,113.0**	**$1,263,613.0**	**$1,263,613.0**	**$1,253,098.0**	

APPENDIX D.5
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO POLICE SERVICES

LAND	**# of Hectares**										**UNIT COST**
Building Name	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/ha)**
Toronto Police Services Headquarters, 40 College St.	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	$88,450,000
Central Field Command											
11 Division, 209 Mavety St.	0.23	0.23	0.23	-	-	-	-	-	-	-	$22,030,000
11 Division, 2054 Davenport Rd.	-	-	-	1.42	1.42	1.42	1.42	1.42	1.42	1.42	$6,230,800
12 Division, 200 Trethewey Dr.	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	$22,030,000
13 Division, 1435 Eglinton Av. W	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	$22,030,000
14 Division, 150 Harrison St. (previous location)	0.33	0.33	0.33	0.33	0.33	-	-	-	-	-	$22,030,000
14 Division, 350 Dovercourt St.	-	-	-	-	0.68	0.68	0.68	0.68	0.68	0.68	$8,809,533
51 Division, 51 Parliament St.	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	$88,450,000
52 Division, 255 Dundas St. W.	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	$88,450,000
53 Division, 75 Eglinton Av. W.	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	$88,450,000
54 Division, 41 Cranfield Rd.	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	$5,040,000
55 Division, 101 Coxwell Avenue.	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	$22,030,000
Area Field Command											
22 Division, 3699 Bloor St. W.	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	$22,030,000
23 Division, 5230 Finch Ave. West	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	$5,040,000
31 Division, 40 Norfinch Dr.	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	$5,040,000
32 Division, 30 Ellerslie Av.	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	$22,030,000
33 Division, 50 Upjohn Rd.	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	$5,040,000
41 Division, 2222 Eglinton Av. E.	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	$22,030,000
42 Division, 242 Milner Av. E.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	$22,030,000
43 Division, 4331 Lawrence Ave. E	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	$22,030,000

APPENDIX D.5
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO POLICE SERVICES

LAND - cont'd	# of Hectares										UNIT COST
Building Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/ha)
Detective Services											
Forensic Investigation Service, 2050 Jane St.	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	$5,040,000
Toronto Drug Squad, 160 Duncan Mills Rd.	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	$5,040,000
Operational Services											
Communications Services, 703 Don Mills Rd. 911 Operation Centre, 703 Don Mills Rd.	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	$22,030,000
Prisoner Transportation Unit, 9 Hanna Avenue. Traffic Services, 9 Hanna Avenue Transit Unit, 9 Hanna Avenue	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	$88,450,000
Emergency Task Force, 300 Lesmill Rd.	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	$5,040,000
Marine, 259 Queen's Quay W.	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	$88,450,000
Mounted and Police Dog Services, 44 Beechwood Dr.	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	$22,030,000
Public Safety and Emergency Management, 4610 Finch Ave E.	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	-	$22,030,000
C.O. Bick Police College, 4620 Finch Ave. E.	0.95	-	-	-	-	-	-	-	-	-	$22,030,000
Toronto Police College, 70 Birmingham St.	-	6.48	6.48	6.48	6.48	6.48	6.48	6.48	6.48	6.48	$22,030,000
Fleet & Materials Mgt, 18 Cranfield Road	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	$22,030,000
Fleet & Materials Mgt, 2050 Jane Street - Bldg B	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	$5,040,000
Divisional Support Unit, 2126 Kipling Avenue	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	-	$5,040,000
Property Evidence Mgt Unit, 799 Islington Ave.	0.96	0.96	0.96	0.96	0.96	-	-	-	-	-	$22,030,000
Property Evidence Mgt Unit, 330 Progress Ave.	-	9.70	9.70	9.70	9.70	9.70	9.70	9.70	7.43	7.43	$2,935,200
Marine Headquarters, 259 Queens Quay West	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	$88,450,000
Police Vehicle Operations, 40 Toryork	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	$5,040,000
Professional Standards - 791 Islington Avenue	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	$5,040,000
Peer to Peer - covert location in Richmond Hill	-	-	-	-	-	-	-	-	1.02	1.02	$2,419,074
Total (ha)	**31.40**	**46.63**	**46.63**	**47.82**	**48.50**	**47.22**	**47.22**	**47.22**	**45.96**	**45.03**	
Total ($000)	**$854,297.0**	**$1,004,604.7**	**$1,004,604.7**	**$1,008,350.0**	**$1,014,377.5**	**$986,104.2**	**$986,104.2**	**$986,104.2**	**$981,893.2**	**$971,507.3**	

APPENDIX D.5
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO POLICE SERVICES

VEHICLES	**# of Vehicles**										**UNIT COST**
Type of Vehicle	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/unit)**
Cars - Marked	1,385	1,421	673	677	652	555	555	561	563	545	$29,100
Cars - Plain	-	-	763	793	797	799	815	816	808	711	$25,900
Cars - Parking Enforcement	-	-	-	-	-	100	100	100	100	100	$20,500
Motorcycles	75	73	69	69	55	50	40	40	40	40	$21,500
Other	127	123	125	125	127	127	127	127	124	151	$60,600
Boats	-	-	22	22	24	24	24	24	24	24	$130,600
Trailers	-	-	42	45	44	44	45	45	45	49	$16,300
Total (#)	**1,587**	**1,617**	**1,694**	**1,731**	**1,699**	**1,699**	**1,706**	**1,713**	**1,704**	**1,620**	
Total ($000)	**$49,612.2**	**$50,374.4**	**$51,962.3**	**$52,904.6**	**$52,345.8**	**$51,517.4**	**$51,733.1**	**$51,933.6**	**$51,602.8**	**$50,268.1**	

APPENDIX D.5
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO POLICE SERVICES

EQUIPMENT	**Total Value of Furniture and Equipment ($)**									
Description	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Machiner and Equipment	$4,263,561	$4,533,907	$5,164,402	$5,511,164	$7,137,292	$8,022,783	$8,600,834	$8,809,002	$13,571,345	$13,571,345
Furniture and Fixtures	$22,875,170	$26,093,778	$31,106,678	$35,295,999	$37,598,071	$38,914,029	$40,187,091	$41,456,755	$42,042,023	$42,042,023
Specialized Police Units	$14,159,546	$15,795,018	$18,621,690	$21,495,473	$21,395,076	$21,899,712	$22,703,067	$23,869,293	$24,007,146	$24,007,146
Computer Equipment	$44,815,879	$49,913,779	$51,399,620	$50,743,129	$54,428,175	$61,935,800	$66,579,082	$68,062,861	$69,406,366	$69,406,366
Fire Arms	$4,242,118	$4,438,818	$4,577,791	$4,633,052	$4,870,137	$5,052,316	$5,176,669	$6,754,531	$6,801,635	$6,801,635
Radio and Electronics	$39,697,439	$42,767,523	$44,961,251	$50,537,506	$42,957,900	$42,099,306	$42,452,146	$42,310,045	$38,857,152	$38,857,152
Radio Infrastructure	$30,092,313	$30,677,833	$31,030,683	$31,261,286	$31,752,176	$33,207,072	$33,583,371	$5,956,406	$0	$0
Specialized Police Equipment	$18,097,172	$28,060,683	$25,994,929	$27,095,047	$28,807,766	$38,284,341	$35,697,740	$35,998,321	$31,446,703	$31,446,703
Security System	$12,799,739	$15,056,613	$15,252,151	$15,319,061	$17,349,859	$18,180,010	$8,656,068	$8,796,869	$8,462,468	$8,462,468
Cabling	$877,905	$877,905	$1,295,503	$1,295,503	$1,295,503	$1,416,075	$1,623,918	$1,623,918	$1,558,680	$1,558,680
Total ($000)	**$191,920.8**	**$218,215.9**	**$229,404.7**	**$243,187.2**	**$247,592.0**	**$269,011.4**	**$265,260.0**	**$243,638.0**	**$236,153.5**	**$236,153.5**

APPENDIX D.5
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
TORONTO POLICE SERVICES

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historic Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048
Historic Employment	1,406,700	1,418,100	1,429,600	1,441,100	1,470,100	1,499,700	1,529,900	1,560,700	1,592,100	1,608,200
Total Historic Population & Employment	3,932,100	3,961,300	3,990,000	4,056,200	4,105,276	4,152,704	4,196,985	4,256,770	4,323,700	4,361,248

INVENTORY SUMMARY ($000)

Buildings	$1,026,335.5	$1,257,281.5	$1,257,281.5	$1,290,781.5	$1,318,213.0	$1,281,113.0	$1,281,113.0	$1,263,613.0	$1,263,613.0	$1,253,098.0
Land	$854,297.0	$1,004,604.7	$1,004,604.7	$1,008,350.0	$1,014,377.5	$986,104.2	$986,104.2	$986,104.2	$981,893.2	$971,507.3
Vehicles	$49,612.2	$50,374.4	$51,962.3	$52,904.6	$52,345.8	$51,517.4	$51,733.1	$51,933.6	$51,602.8	$50,268.1
Equipment	$191,920.8	$218,215.9	$229,404.7	$243,187.2	$247,592.0	$269,011.4	$265,260.0	$243,638.0	$236,153.5	$236,153.5
Total ($000)	**$2,122,165.6**	**$2,530,476.5**	**$2,543,253.2**	**$2,595,223.3**	**$2,632,528.3**	**$2,587,746.1**	**$2,584,210.3**	**$2,545,288.8**	**$2,533,262.5**	**$2,511,026.9**

SERVICE LEVEL ($/capita & employment)

											Average Service Level
Buildings	$261.01	$317.39	$315.11	$318.22	$321.10	$308.50	$305.25	$296.85	$292.25	$287.33	$302.30
Land	$217.26	$253.60	$251.78	$248.59	$247.09	$237.46	$234.96	$231.66	$227.10	$222.76	$237.23
Vehicles	$12.62	$12.72	$13.02	$13.04	$12.75	$12.41	$12.33	$12.20	$11.93	$11.53	$12.45
Equipment	$48.81	$55.09	$57.49	$59.95	$60.31	$64.78	$63.20	$57.24	$54.62	$54.15	$57.56
Total ($/capita & employment)	**$539.70**	**$638.80**	**$637.41**	**$639.82**	**$641.25**	**$623.15**	**$615.73**	**$597.94**	**$585.90**	**$575.76**	**$609.55**

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
TORONTO POLICE SERVICES

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2008 - 2017	$609.55
Net Population & Employment Growth 2018 -	356,305
Maximum Allowable Funding Envelope	**$217,185,891**

HEMSON

APPENDIX D.5
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL PROGRAM
POLICE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs	
					BTE[1] %	Replacement & BTE Shares	0% Reduction		2018-2027	Post 2027
5 POLICE										
5.1 Buildings, Land & Furnishings										
5.1.1 Disaster Recovery Site	2018 - 2019	$ 15,259,000	$ -	$ 15,259,000	31%	$ 4,686,000	$ -	$ 10,573,000	$ 10,573,000	$ -
5.1.2 Replacement of 41 Division	2018 - 2022	$ 38,928,000	$ -	$ 38,928,000	93%	$ 36,153,000	$ -	$ 2,775,000	$ 2,775,000	$ -
5.1.3 Replacement of 54 Division	2018 - 2020	$ 39,425,000	$ -	$ 39,425,000	43%	$ 16,867,000	$ -	$ 22,558,000	$ 22,558,000	$ -
5.1.4 Other Facility Replacement	2020 - 2026	$ 89,915,000	$ -	$ 89,915,000	41%	$ 36,604,000	$ -	$ 53,311,000	$ 53,311,000	$ -
Subtotal Buildings, Land & Furnishings		$ 183,527,000	$ -	$ 183,527,000		$ 94,310,000	$ -	$ 89,217,000	$ 89,217,000	$ -
5.2 Equipment										
5.2.1 Enterprise Business Intelligence (EBI)	2018 - 2018	$ 10,216,000	$ -	$ 10,216,000	90%	$ 9,194,000	$ -	$ 1,022,000	$ 1,022,000	$ -
5.2.2 Conducted Energy Weapon (CEW)	2018 - 2018	$ 750,000	$ -	$ 750,000	92%	$ 687,000	$ -	$ 63,000	$ 63,000	$ -
5.2.3 Body Worn Camera - Initial phase	2018 - 2018	$ 500,000	$ -	$ 500,000	92%	$ 458,000	$ -	$ 42,000	$ 42,000	$ -
5.2.4 Parking Handheld APS	2018 - 2018	$ 2,550,000	$ -	$ 2,550,000	92%	$ 2,336,000	$ -	$ 214,000	$ 214,000	$ -
5.2.5 TPS Archiving	2018 - 2018	$ 700,000	$ -	$ 700,000	60%	$ 420,000	$ -	$ 280,000	$ 280,000	$ -
5.2.6 Mobile Workstations / Connected Officer	2018 - 2025	$ 20,888,000	$ -	$ 20,888,000	58%	$ 12,011,000	$ -	$ 8,877,000	$ 8,877,000	$ -
Subtotal Equipment		$ 35,604,000	$ -	$ 35,604,000		$ 25,106,000	$ -	$ 10,498,000	$ 10,498,000	$ -
TOTAL POLICE		**$ 219,131,000**	**$ -**	**$ 219,131,000**		**$ 119,416,000**	**$ -**	**$ 99,715,000**	**$ 99,715,000**	**$ -**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$70,791,643
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$280.04**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$28,923,357
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$206.30**

2018 - 2027 Net Funding Envelope	$217,185,891

HEMSON

APPENDIX D.5
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
POLICE
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

POLICE	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.0	($3,639.3)	($6,875.5)	($11,782.7)	($11,639.9)	($11,473.5)	($10,839.1)	($10,144.5)	($9,386.0)	($8,036.1)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Police: Non Inflated	$11,424.0	$10,273.2	$11,926.9	$6,588.6	$6,588.6	$6,194.6	$6,194.6	$6,194.6	$5,406.8	$0.0	**$70,791.6**
- Police: Inflated	$11,424.0	$10,478.6	$12,408.7	$6,991.9	$7,131.7	$6,839.3	$6,976.1	$7,115.6	$6,334.9	$0.0	**$75,700.8**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$7,882.1	$7,523.7	$8,000.9	$7,769.1	$7,924.5	$8,083.0	$8,244.6	$8,409.5	$8,168.9	$8,332.3	**$80,338.6**
INTEREST											
- Interest on Opening Balance	$0.0	($200.2)	($378.2)	($648.0)	($640.2)	($631.0)	($596.2)	($557.9)	($516.2)	($442.0)	**($4,609.9)**
- Interest on In-year Transactions	($97.4)	($81.3)	($121.2)	$13.6	$13.9	$21.8	$22.2	$22.6	$32.1	$145.8	**($27.9)**
TOTAL REVENUE	$7,784.7	$7,242.3	$7,501.5	$7,134.6	$7,298.1	$7,473.7	$7,670.7	$7,874.2	$7,684.8	$8,036.1	**$75,700.8**
CLOSING CASH BALANCE	($3,639.3)	($6,875.5)	($11,782.7)	($11,639.9)	($11,473.5)	($10,839.1)	($10,144.5)	($9,386.0)	($8,036.1)	$0.0	

2018 Adjusted Charge Per Capita	**$290.75**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX D.5
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
POLICE
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

POLICE	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.00	($1,700.88)	($3,036.54)	($5,192.78)	($5,132.60)	($5,062.19)	($4,800.00)	($4,512.58)	($4,198.33)	($3,471.83)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Police: Non Inflated	$4,667.5	$4,197.3	$4,873.0	$2,691.9	$2,691.9	$2,530.9	$2,530.9	$2,530.9	$2,209.1	$0.0	**$28,923.4**
- Police: Inflated	$4,667.5	$4,281.3	$5,069.8	$2,856.7	$2,913.8	$2,794.3	$2,850.2	$2,907.2	$2,588.3	$0.0	**$30,929.1**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$3,012.1	$3,072.4	$3,133.8	$3,196.5	$3,260.4	$3,325.6	$3,392.2	$3,460.0	$3,529.2	$3,599.8	**$32,982.1**
INTEREST											
- Interest on Opening Balance	$0.0	($93.5)	($167.0)	($285.6)	($282.3)	($278.4)	($264.0)	($248.2)	($230.9)	($191.0)	**($2,040.9)**
- Interest on In-year Transactions	($45.5)	($33.2)	($53.2)	$5.9	$6.1	$9.3	$9.5	$9.7	$16.5	$63.0	**($12.1)**
TOTAL REVENUE	$2,966.6	$2,945.6	$2,913.6	$2,916.8	$2,984.2	$3,056.5	$3,137.6	$3,221.5	$3,314.8	$3,471.8	**$30,929.1**
CLOSING CASH BALANCE	($1,700.9)	($3,036.5)	($5,192.8)	($5,132.6)	($5,062.2)	($4,800.0)	($4,512.6)	($4,198.3)	($3,471.8)	$0.0	

2018 Adjusted Charge Per Employee	**$214.85**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D.6

Fire

HEMSON

Appendix D.6

Fire
Technical Appendix

This appendix provides a brief outline of historical service levels for Toronto Fire Services (TFS), the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff and are based upon the proposed and approved capital budgets, previous DC Background Studies, and other long-range planning documents.

The following discusses the individual components included in the Fire service category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital Forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 3	Cash Flow Analysis

A. Historical Service Levels and Calculation of 10-Year Average Service Levels and Maximum Allowable Charges

Fire services are currently provided through 808,200 square feet of station space and ancillary buildings. The building space in 2017 is valued at $404.11 million and is derived by applying a unit cost of $500/square foot to the building space. The replacement value used for fire stations is based upon recently constructed stations.

The land associated with each Fire building is also included in Table 1. The replacement value for the lands associated with Fire facilities were taken from a database containing City-owned real estate assets provided by the City's Facilities and Real Estate Division. In total, the replacement cost of the land associated with Fire buildings amounts to $888.78 million.

There are currently 404 fire vehicles in the TFS fleet. Each vehicle unit cost includes the cost of acquiring the vehicle itself, as well as the equipment that is purchased and kept on board. In total, the value of the vehicles in 2017 was $122.32 million.

TFS had 2,670 firefighters employed in 2017 that were outfitted with 5,000 units of fire equipment to carry out operations. The total 7,670 units value of equipment is $144.76 million in 2017.

Table 1 provides a summary of the level of service and the calculation of the ten-year historical service level. The calculation of the maximum allowable funding envelope is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$370.10
Net Population & Employment Growth (2018 – 2027)	356,305
Maximum Allowable Funding Envelope	**$131,868,589**

The existing facilities have been examined and consideration has been made with regard to whether or not “excess capacity” exists within the City’s infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no “uncommitted excess capacity” exists within the City’s Fire infrastructure, and as such, no adjustments have been made to the service level calculations.

B. Development-Related Capital Forecast

The capital projects will result, in whole or in part, in increased capacity to meet the servicing needs of new development. The 2018–2027 development-related capital forecast includes the construction of four new fire stations, a training facility, a fire prevention office, fire truck acquisitions and the completion of two fire master plans.

The construction cost of the new stations and fire buildings amounts to $38.06 million. The two fire master plans will cost $250,000 each; and the addition of new fire trucks will cost $4.70 million. The total cost of the Fire services DC capital forecast is $43.26 million.

Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City's "excess capacity" other than excess capacity which is "committed". "Excess capacity" is undefined in the DCA, but is considered to relate to the capacity available to meet some or all of the increase in need for service in order to potentially represent a deduction. For Fire services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and feasibility work associated with planning new facilities. It is recognized that no "surplus" of capacity exists within Fire services.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

No grants, subsidies or other recoveries have been identified to fund any of the development-related projects to be recovered through development charges. As such, no deductions have been made in this regard.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development.

The majority of the facilities planned for construction are net new, and will be in addition to the current number of stations and facilities. No fire stations will be decommissioned as a result of these four stations opening. As such, no replacement share has been allocated to the cost of the stations. The new Fire Prevention Office at the existing facility located at 3 Dohme Avenue will double the current work space from 15 to 30 offices for new staff. As such, a 50 per cent deduction has been applied to the project.

While a fire master plan will address how to service new growth, a portion of the study will also address evolving operational needs. As such, a 50 per cent benefit to existing share has been applied against this project.

In total, $2.50 million is identified as the replacement and benefit to existing share.

3. Legislated Ten per cent Reduction

As this service is identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs is not required. No shares are identified as the legislated ten per cent reduction share.

4. Post-2027 Benefit

The total development-related costs of the Fire capital forecast – $40.76 million – is within the net funding envelope of $131.87 million. As such, the entire development related costs are eligible for recovery in the ten-year planning period of 2018 to 2027 of the new DC by-law. No costs are deemed to be of post-period benefit.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $40.76 million is included in the development charge calculation.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 71 per cent to residential development, and 29 per cent to the non-residential sector. This sector allocation is based upon future shares population growth in new permits issued (252,800) and employment growth in new space (140,200).

Table 2 displays the 71 per cent allocation to the residential sector, or $28.94 million, and 29 per cent to the non-residential sector, or $11.82 million.

Table 2 also displays the calculation of the unadjusted per capita residential charge for Fire. The $28.94 million in discounted development-related net capital costs are allocated to the 252,800 population forecast from new permits issued, yielding a per capita charge of $114.48 before cash flow adjustments.

The non-residential unadjusted charge per square metre is calculated by taking the $11.82 million allocated to the non-residential sector and dividing it by the 140,200 employment growth forecast. This yields an unadjusted charge of $84.34 per employee.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and employee development charges. After cash flow consideration, the residential calculated charge increases to $120.48 per capita. The non-residential charge after cash flow also increases to $89.02 per employee.

The following table summarizes the calculation of the Fire services development charge.

FIRE SUMMARY

10-year Hist. Service Level per pop & emp	2018 - 2027 Development-Related Capital Program Total	Net DC Recoverable	Unadjusted Development Charge $/capita	$/emp	**Adjusted Development Charge $/capita**	**$/emp**
$370.10	$43,264,400	$40,764,400	$114.48	$84.34	**$120.48**	**$89.02**

APPENDIX D.6
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO FIRE SERVICES

BUILDINGS	# of Square Feet										UNIT COST
Station Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/sq. ft.)
East Command - #1 (former), 351 Birchmount Rd.	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	$500
Fire Training Academy, 895 Eastern Ave.	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	$500
Mechanical Division, 893 Eastern Ave.	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	$500
Quartermaster (Warehouse/Mechanical), 15 Rotherham Ave.	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000	$500
Station #111, 3300 Bayview Ave.	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	$500
Station #112, 5700 Bathurst St.	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	$500
Station #113, 700 Seneca Hill	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	$500
Station #114, 12 Canterbury Pl.	8,634	8,634	8,634	8,634	8,634	8,634	8,634	8,634	8,634	8,634	$500
Station #115, 115 Parkway Forest Dr.	5,986	5,986	5,986	5,986	5,986	5,986	5,986	5,986	5,986	5,986	$500
Station #116, 1 Esther Shiner Boulevard	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	$500
Station #121, 10 William Carson Cres.	4,216	4,216	4,216	4,216	4,216	4,216	4,216	4,216	4,216	4,216	$500
Station #122, 2545 Bayview Ave.	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,050	$500
Station #123, 143 Bond Avenue	2,496	2,496	2,496	2,496	2,496	2,496	2,496	2,496	2,496	2,496	$500
Station #125, 1109 Leslie St.	5,810	5,810	5,810	5,810	5,810	5,810	5,810	5,810	5,810	5,810	$500
Station #131, 3135 Yonge St.	5,850	5,850	5,850	5,850	5,850	5,850	5,850	5,850	5,850	5,850	$500
Station #132, 476 Lawrence Ave. W.	7,704	7,704	7,704	7,704	7,704	7,704	7,704	7,704	7,704	7,704	$500
Station #133, 1505 Lawrence Ave. E.	8,064	8,064	8,064	8,064	8,064	8,064	8,064	8,064	8,064	8,064	$500
Station #134, 16 Montgomery Ave.	7,130	7,130	7,130	7,130	7,130	7,130	7,130	7,130	7,130	7,130	$500
Station #135, 641 Eglinton Ave.	5,401	5,401	5,401	5,401	5,401	5,401	5,401	5,401	-	-	$500
Station #135, 325 Chaplin Ave.	-	-	-	-	-	-	-	-	10,600	10,600	$500
Station #141, 3965 Keele St.	2,891	2,891	2,891	-	-	-	-	-	-	-	$500
Station #141, 4100 Keele St.	-	-	-	11,500	11,500	11,500	11,500	11,500	11,500	11,500	$500
Station #142, 2753 Jane St.	5,589	5,589	5,589	5,589	5,589	5,589	5,589	5,589	5,589	5,589	$500
Station #143, 1009 Sheppard Ave. W.	2,891	2,891	2,891	2,891	2,891	2,891	2,891	2,891	2,891	2,891	$500
Station #145, 20 Beffort Rd.	5,460	5,460	5,460	5,460	5,460	5,460	5,460	5,460	5,460	5,460	$500
Station #146, 2220 Jane St.	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	$500
Station #211, 900 Tapscott Rd.	3,571	3,571	3,571	3,571	3,571	3,571	3,571	3,571	3,571	3,571	$500
Station #212, 8500 Sheppard Ave. E.	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	$500
Station #213, 7 Lapsley Dr.	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	$500
Station #214, 745 Meadowvale Rd.	4,986	4,986	4,986	4,986	4,986	4,986	4,986	4,986	4,986	4,986	$500
Station #215, 5318 Lawrence Ave. E.	4,223	4,223	4,223	4,223	4,223	4,223	4,223	4,223	4,223	4,223	$500
Station #221, 2575 Eglinton Ave E	-	-	-	-	-	-	12,000	12,000	12,000	12,000	$500
Station #222, 751 Warden Ave.	6,912	6,912	6,912	6,912	6,912	6,912	6,912	6,912	6,912	6,912	$500
Station #223, 116 Dorset Rd.	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	7,100	$500
Station #224, 1313 Woodbine Ave.	7,646	7,646	7,646	7,646	7,646	7,646	7,646	7,646	7,646	7,646	$500

APPENDIX D.6
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO FIRE SERVICES

BUILDINGS - cont'd	# of Square Feet										UNIT COST
Station Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/sq. ft.)
Station #225, 3600 Danforth Ave.	9,085	9,085	9,085	9,085	9,085	9,085	9,085	9,085	9,085	9,085	$500
Station #226, 87 Main St.	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	$500
Station #227, 1904 Queen St. W.	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	$500
Station #231, 740 Markham Rd.	13,225	13,225	13,225	13,225	13,225	13,225	13,225	13,225	13,225	13,225	$500
Station #232, 1550 Midland Ave.	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	$500
Station #233, 59 Curlew Dr.	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	$500
Station #234, 40 Coronation Rd.	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	$500
Station #235&Training, 200 Bermondsey Road	8,898	8,898	8,898	8,898	8,898	8,898	8,898	8,898	8,898	8,898	$500
Station #241, 3325 Warden Ave.	3,996	3,996	3,996	3,996	3,996	3,996	3,996	3,996	3,996	3,996	$500
Station #242, 2733 Brimley Rd.	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	$500
Station #243, 4560 Sheppard Ave.	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	$500
Station #244, 2340 Birchmount Rd.	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	5,048	$500
Station #245, 1600 Birchmount Rd.	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	$500
Station #311, 20 Balmoral Ave.	12,750	12,750	12,750	12,750	12,750	12,750	12,750	12,750	12,750	12,750	$500
Station #312, 34 Yorkville Ave.	9,800	9,800	9,800	9,800	9,800	9,800	9,800	9,800	9,800	9,800	$500
Station #313, 441 Bloor St. E.	12,100	12,100	12,100	12,100	12,100	12,100	12,100	12,100	12,100	12,100	$500
Station #314, 12 Grosvenor St.	11,940	11,940	11,940	11,940	11,940	11,940	11,940	11,940	11,940	11,940	$500
Station #315, 132 Bellevue Ave.	7,250	7,250	7,250	7,250	7,250	7,250	7,250	7,250	7,250	7,250	$500
Station #321, 231 McRae Drive	8,552	8,552	8,552	8,552	8,552	8,552	8,552	8,552	8,552	8,552	$500
Station #322, 256 Cosburn Ave.	7,848	7,848	7,848	7,848	7,848	7,848	7,848	7,848	7,848	7,848	$500
Station #323, 153 Chatham Ave.	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	10,240	$500
Station #324, 840 Gerrard St. E.	13,150	13,150	13,150	13,150	13,150	13,150	13,150	13,150	13,150	13,150	$500
Station #325, 475 Dundas St. E.	10,130	10,130	10,130	10,130	10,130	10,130	10,130	10,130	10,130	10,130	$500
Station #326, 30 Knox Ave.	4,070	4,070	4,070	4,070	4,070	4,070	4,070	4,070	4,070	4,070	$500
Station #331, 33 Claremont St.	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	$500
Station #332, 260 Adelaide St.	20,850	20,850	20,850	20,850	20,850	20,850	20,850	20,850	20,850	20,850	$500
Station #333, 207 Front St. E.	12,720	12,720	12,720	12,720	12,720	12,720	12,720	12,720	12,720	12,720	$500
Station #334, 339 Queens Quay W.	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	$500
Station #335, 235 Cibola Ave.	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	$500

APPENDIX D.6
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO FIRE SERVICES

BUILDINGS - cont'd	**# of Square Feet**										**UNIT COST**
Station Name	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/sq. ft.)**
Station #341, 555 Oakwood Ave.	9,271	9,271	9,271	9,271	9,271	9,271	9,271	9,271	9,271	9,271	$500
Station #342, 106 Ascot Ave.	3,060	3,060	3,060	3,060	3,060	3,060	3,060	3,060	3,060	3,060	$500
Station #343, 65 Hendrick Ave.	9,830	9,830	9,830	9,830	9,830	9,830	9,830	9,830	9,830	9,830	$500
Station #344, 240 Howland Ave.	11,240	11,240	11,240	11,240	11,240	11,240	11,240	11,240	11,240	11,240	$500
Station #345, 1285 Dufferin St.	12,800	12,800	12,800	12,800	12,800	12,800	12,800	12,800	12,800	12,800	$500
Station #411, 75 Toryork Dr.	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	2,900	$500
Station #412, 267 Humberline Dr.	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	$500
Station #413, 1549 Albion Rd.	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	$500
Station #415, 2120 Kipling Ave.	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	$500
Station #421, 6 Lambton Avenue	9,464	9,464	9,464	9,464	9,464	9,464	9,464	9,464	9,464	9,464	$500
Station #422, 590 Jane St.	7,946	7,946	7,946	7,946	7,946	7,946	7,946	7,946	7,946	7,946	$500
Station #423, 358 Keele St.	12,340	12,340	12,340	12,340	12,340	12,340	12,340	12,340	12,340	12,340	$500
Station #424, 462 Runnymede Rd.	5,870	5,870	5,870	5,870	5,870	5,870	5,870	5,870	5,870	5,870	$500
Station #425, 83 Deforest Rd.	7,950	7,950	7,950	7,950	7,950	7,950	7,950	7,950	7,950	7,950	$500
Station #426, 140 Lansdowne Ave.	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	$500
Station #431, 308 Prince Edward Dr.	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	$500
Station #432, 155 The East Mall	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	$500
Station #433, 615 Royal York Rd.	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	$500
Station #434, 3 Lunness Ave.	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	$500
Station #435, 130 Eighth St.	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	$500
Station #441& Training, 947 Martingrove Rd.	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	$500
Station #442, 2015 Lawrence Ave. W.	15,481	15,481	15,481	15,481	15,481	15,481	15,481	15,481	15,481	15,481	$500
Station #443, 1724 Islington Ave.	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	$500
Station #444, 666 Renforth Dr.	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	4,900	$500
Station #445, 280 Burnhamthorpe Rd.	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	$500
Training Division, 4562 Sheppard Ave.	5,925	5,925	5,925	5,925	5,925	5,925	5,925	5,925	5,925	5,925	$500
Fire Service Repair Facility, 40 Toryork	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	$500
HUSAR Facility, 21 Old Eglinton Avenue	11,700	11,700	11,700	11,700	11,700	11,700	11,700	11,700	11,700	11,700	$500
Fire Prevention, 3 Dohme Ave	-	-	-	-	-	-	-	-	28,700	28,700	$500
Total (sq.ft.)	**753,717**	**753,717**	**753,717**	**762,326**	**762,326**	**762,326**	**774,326**	**774,326**	**808,225**	**808,225**	
Total ($000)	**$376,858.5**	**$376,858.5**	**$376,858.5**	**$381,163.0**	**$381,163.0**	**$381,163.0**	**$387,163.0**	**$387,163.0**	**$404,112.5**	**$404,112.5**	

APPENDIX D.6
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO FIRE SERVICES

LAND	# of Hectares										UNIT COST
Station Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/ha)
East Command - #1 (former), 351 Birchmount Rd.	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	$22,030,000
Fire Training Academy & Mechanical Division, 893 & 895 Eastern Ave.	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	$22,030,000
Quartermaster (Warehouse/Mechanical), 15 Rotherham Ave.	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	$22,030,000
Station #111, 3300 Bayview Ave.		0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	$22,030,000
Station #112, 5700 Bathurst St.	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	$22,030,000
Station #113, 700 Seneca Hill	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	$22,030,000
Station #114, 12 Canterbury Pl.	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	$22,030,000
Station #115, 115 Parkway Forest Dr.	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	$22,030,000
Station #116, 1 Esther Shiner Boulevard	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32	$22,030,000
Station #121, 10 William Carson Cres.	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$22,030,000
Station #122, 2545 Bayview Ave.	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	$22,030,000
Station #123, 143 Bond Avenue	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	$22,030,000
Station #125, 1109 Leslie St.	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	$22,030,000
Station #131, 3135 Yonge St.	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$22,030,000
Station #132, 476 Lawrence Ave. W.	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	$22,030,000
Station #133, 1505 Lawrence Ave. E.	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	$22,030,000
Station #134, 16 Montgomery Ave.	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	$22,030,000
Station #135, 641 Eglinton Ave.	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	-	-	$88,450,000
Station #135, 135 Chaplin Ave.	-	-	-	-	-	-	-	-	0.10	0.10	$22,030,000
Station #141, 3965 Keele St.	0.14	0.14	0.14	-	-	-	-	-	-	-	$22,030,000
Station #141, 4100 Keele St.	-	-	-	1.32	1.32	1.32	1.32	1.32	1.32	1.32	$22,030,000
Station #142, 2753 Jane St.	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	$22,030,000
Station #143, 1009 Sheppard Ave. W.	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	$22,030,000
Station #145, 20 Beffort Rd.	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	$22,030,000
Station #146, 2220 Jane St.	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	$22,030,000
Station #211, 900 Tapscott Rd.	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	$5,040,000
Station #212, 8500 Sheppard Ave. E.	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	$5,040,000
Station #213, 7 Lapsley Dr.	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	$22,030,000
Station #214, 745 Meadowvale Rd.	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	$22,030,000
Station #215, 5318 Lawrence Ave. E.	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	$22,030,000
Station #222, 751 Warden Ave.	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	$5,040,000
Station #223, 116 Dorset Rd.	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	$22,030,000
Station #224, 1313 Woodbine Ave.	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Station #225, 3600 Danforth Ave.	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	$22,030,000
Station #226, 87 Main St.	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	$22,030,000
Station #227, 1904 Queen St. W.	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	$88,450,000

APPENDIX D.6
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO FIRE SERVICES

LAND	# of Hectares										UNIT COST
Station Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/ha)
Station #231, 740 Markham Rd.	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	$22,030,000
Station #232, 1550 Midland Ave.	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	$5,040,000
Station #233, 59 Curlew Dr.	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	$22,030,000
Station #234, 40 Coronation Rd.	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	$22,030,000
Station #235&Training, 200 Bermondsey Road	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	$5,040,000
Station #241, 3325 Warden Ave.	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	$22,030,000
Station #242, 2733 Brimley Rd.	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	$22,030,000
Station #243 & Training Division, 4560 & 4562 Sheppard Ave.	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	$22,030,000
Station #244, 2340 Birchmount Rd.	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	$22,030,000
Station #245, 1600 Birchmount Rd.	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	$22,030,000
Station #311, 20 Balmoral Ave.	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	$88,450,000
Station #312, 34 Yorkville Ave.	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	$88,450,000
Station #313, 441 Bloor St. E.	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$88,450,000
Station #314, 12 Grosvenor St.	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$88,450,000
Station #315, 132 Bellevue Ave.	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	$88,450,000
Station #321, 231 McRae Drive	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	$22,030,000
Station #322, 256 Cosburn Ave.	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	$22,030,000
Station #323, 153 Chatham Ave.	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	$22,030,000
Station #324, 840 Gerrard St. E.	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Station #325, 475 Dundas St. E.	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	$88,450,000
Station #326, 30 Knox Ave.	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	$22,030,000
Station #331, 33 Claremont St.	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	$88,450,000
Station #332, 260 Adelaide St.	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	$88,450,000
Station #333, 207 Front St. E.	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	$88,450,000
Station #334, 339 Queens Quay W.	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	$88,450,000
Station #335, 235 Cibola Ave.	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	$88,450,000
Station #341, 555 Oakwood Ave.	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	$22,030,000
Station #342, 106 Ascot Ave.	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	$22,030,000
Station #343, 65 Hendrick Ave.	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Station #344, 240 Howland Ave.	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	$88,450,000
Station #345, 1285 Dufferin St.	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$88,450,000
Station #411, 75 Toryork Dr.	18.11	18.11	18.11	18.11	18.11	18.11	18.11	18.11	18.11	18.11	$5,040,000
Station #412, 267 Humberline Dr.	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	$5,040,000
Station #413, 1549 Albion Rd.	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	$22,030,000
Station #415, 2120 Kipling Ave.	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	$22,030,000
Station #421, 6 Lambton Avenue	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	$22,030,000

APPENDIX D.6
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO FIRE SERVICES

LAND	# of Hectares										UNIT COST
Station Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/ha)
Station #422, 590 Jane St.	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	$22,030,000
Station #423, 358 Keele St.	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	$22,030,000
Station #424, 462 Runnymede Rd.	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	$22,030,000
Station #425, 83 Deforest Rd.	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	$22,030,000
Station #426, 140 Lansdowne Ave.	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	$22,030,000
Station #431, 308 Prince Edward Dr.	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	$22,030,000
Station #432, 155 The East Mall	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	$22,030,000
Station #433, 615 Royal York Rd.	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	$22,030,000
Station #434, 3 Lunness Ave.	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	$22,030,000
Station #435, 130 Eighth St.	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	$22,030,000
Station #441& Training, 947 Martingrove Rd.	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	$22,030,000
Station #442, 2015 Lawrence Ave. W.	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	$22,030,000
Station #443, 1724 Islington Ave.	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	$22,030,000
Station #444, 666 Renforth Dr.	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	$22,030,000
Station #445, 280 Burnhamthorpe Rd.	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	$22,030,000
Fire Service Repair Facility, 40 Toryork	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	$5,040,000
HUSAR Facility, 21 Old Eglinton Avenue	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	6.06	$5,040,000
Fire Prevention, 3 Dohme Ave	-	-	-	-	-	-	-	-	1.14	1.14	$5,040,000
Total (ha)	**53.07**	**53.23**	**53.23**	**54.40**	**54.40**	**54.41**	**54.41**	**54.41**	**55.59**	**55.59**	
Total ($000)	**$856,621.4**	**$860,080.8**	**$860,080.8**	**$885,948.2**	**$885,948.2**	**$886,116.6**	**$886,116.6**	**$886,116.6**	**$888,780.2**	**$888,780.2**	

APPENDIX D.6
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO FIRE SERVICES

VEHICLES	**# of Vehicles**										**UNIT COST**
Type of Vehicle	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/unit)**
Pumpers	77	79	79	79	71	75	75	79	79	65	$583,000
Rescues	28	28	28	28	28	28	28	28	28	44	$583,000
Aerials	9	7	7	7	5	2	2	2	4	4	$1,000,000
Quint Aerials	30	30	30	31	30	36	36	36	34	34	$1,100,000
Squads	8	6	7	7	6	6	6	6	7	7	$469,000
Support Vehicles (incl Training & Mech trucks)	26	26	26	28	29	28	28	28	27	24	$380,000
Various Light Units	180	182	176	180	179	185	185	220	220	226	$22,000
Total (#)	**358**	**358**	**353**	**360**	**348**	**360**	**360**	**399**	**399**	**404**	
Total ($000)	**$120,807.0**	**$119,079.0**	**$119,416.0**	**$121,364.0**	**$113,489.0**	**$119,173.0**	**$119,173.0**	**$122,275.0**	**$122,164.0**	**$122,322.0**	

APPENDIX D.6
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO FIRE SERVICES

EQUIPMENT	# of Equipment										UNIT COST
Personal and Other	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/unit)**
Personal Equipment											
Number of Fire Fighters	2,766	2,766	2,766	2,766	2,766	2,754	2,670	2,670	2,670	2,670	$17,950
Other Equipment											
CAD/RMS System - emergency dispatch system	1	1	1	1	1	1	1	1	1	1	$13,000,000
Emergency Radio System - shared with Police & Paramedic	1	1	1	1	1	1	1	1	1	1	$55,373,000
Defibrillators	167	167	167	167	167	167	167	167	167	167	$4,500
Self Contained Breathing Apparatus	780	780	780	780	780	780	780	830	830	830	$3,200
Personal Protection Equipment	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	$1,325
Portable Radios	700	700	800	800	800	800	800	800	800	800	$6,250
Fire Boat	1	1	1	1	1	1	1	1	1	1	$15,000,000
Thermal Imaging Cameras	-	-	-	-	-	-	-	-	200	200	$5,400
Total (#)	**7,416**	**7,416**	**7,516**	**7,516**	**7,516**	**7,504**	**7,420**	**7,470**	**7,670**	**7,670**	
Total ($000)	**$144,620.2**	**$144,620.2**	**$145,245.2**	**$145,245.2**	**$145,245.2**	**$145,029.8**	**$143,522.0**	**$143,682.0**	**$144,762.0**	**$144,762.0**	

APPENDIX D.6
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
TORONTO FIRE SERVICES

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historic Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048
Historic Employment	1,406,700	1,418,100	1,429,600	1,441,100	1,470,100	1,499,700	1,529,900	1,560,700	1,592,100	1,608,200
Total Historic Population & Employment	3,932,100	3,961,300	3,990,000	4,056,200	4,105,276	4,152,704	4,196,985	4,256,770	4,323,700	4,361,248

INVENTORY SUMMARY ($000)

Buildings	$376,858.5	$376,858.5	$376,858.5	$381,163.0	$381,163.0	$381,163.0	$387,163.0	$387,163.0	$404,112.5	$404,112.5
Land	$856,621.4	$860,080.8	$860,080.8	$885,948.2	$885,948.2	$886,116.6	$886,116.6	$886,116.6	$888,780.2	$888,780.2
Vehicles	$120,807.0	$119,079.0	$119,416.0	$121,364.0	$113,489.0	$119,173.0	$119,173.0	$122,275.0	$122,164.0	$122,322.0
Equipment	$144,620.2	$144,620.2	$145,245.2	$145,245.2	$145,245.2	$145,029.8	$143,522.0	$143,682.0	$144,762.0	$144,762.0
Total ($000)	**$1,498,907.1**	**$1,500,638.5**	**$1,501,600.5**	**$1,533,720.4**	**$1,525,845.4**	**$1,531,482.4**	**$1,535,974.6**	**$1,539,236.6**	**$1,559,818.7**	**$1,559,976.7**

SERVICE LEVEL ($/capita & employment)

											Average Service Level
Buildings	$95.84	$95.14	$94.45	$93.97	$92.85	$91.79	$92.25	$90.95	$93.46	$92.66	$93.34
Land	$217.85	$217.12	$215.56	$218.42	$215.81	$213.38	$211.13	$208.17	$205.56	$203.79	$212.68
Vehicles	$30.72	$30.06	$29.93	$29.92	$27.64	$28.70	$28.39	$28.72	$28.25	$28.05	$29.04
Equipment	$36.78	$36.51	$36.40	$35.81	$35.38	$34.92	$34.20	$33.75	$33.48	$33.19	$35.04
Total ($/capita & employment)	**$381.20**	**$378.82**	**$376.34**	**$378.12**	**$371.68**	**$368.79**	**$365.97**	**$361.60**	**$360.76**	**$357.69**	**$370.10**

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
TORONTO FIRE SERVICES

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2008 - 2017	$370.10
Net Population & Employment Growth 2018 - 2027	356,305
Maximum Allowable Funding Envelope	**$131,868,589**

APPENDIX D.6
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL PROGRAM
FIRE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs	
					BTE[1] %	Replacement & BTE Shares	0% Reduction		2018-2027	Post 2027
6 FIRE										
6.1 Buildings, Land & Furnishings										
6.1.1 Station B - Downsview	2018 - 2019	$ 5,747,000	$ -	$ 5,747,000	0%	$ -	$ -	$ 5,747,000	$ 5,747,000	$ -
6.1.2 Station A - Woodbine	2018 - 2019	$ 6,725,000	$ -	$ 6,725,000	0%	$ -	$ -	$ 6,725,000	$ 6,725,000	$ -
6.1.3 Fire Prevention Office Space Accommodation (3 Dohme)	2018 - 2018	$ 4,500,000	$ -	$ 4,500,000	50%	$ 2,250,000	$ -	$ 2,250,000	$ 2,250,000	$ -
6.1.4 East Training - New Building on the Fire Ground	2019 - 2019	$ 5,000,000	$ -	$ 5,000,000	0%	$ -	$ -	$ 5,000,000	$ 5,000,000	$ -
6.1.5 Station G -Sunnybrook	2023 - 2025	$ 11,821,000	$ -	$ 11,821,000	0%	$ -	$ -	$ 11,821,000	$ 11,821,000	$ -
6.1.6 New Fire Station - Lower Don Lands - Phase I	2026 - 2027	$ 4,271,400	$ -	$ 4,271,400	0%	$ -	$ -	$ 4,271,400	$ 4,271,400	$ -
Subtotal Buildings, Land & Furnishings		$ 38,064,400	$ -	$ 38,064,400		$ 2,250,000	$ -	$ 35,814,400	$ 35,814,400	$ -
6.2 Vehicles										
6.2.1 Station B - New Aerial Truck	2019 - 2019	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ -	$ 1,000,000	$ 1,000,000	$ -
6.2.2 Station A - New Aerial Truck	2019 - 2019	$ 1,000,000	$ -	$ 1,000,000	0%	$ -	$ -	$ 1,000,000	$ 1,000,000	$ -
6.2.3 Super Aerial Truck	2019 - 2019	$ 2,700,000	$ -	$ 2,700,000	0%	$ -	$ -	$ 2,700,000	$ 2,700,000	$ -
Subtotal Vehicles		$ 4,700,000	$ -	$ 4,700,000		$ -	$ -	$ 4,700,000	$ 4,700,000	$ -
6.3 Fire Master Plan										
6.3.1 Fire Master Plan	2018 - 2018	$ 250,000	$ -	$ 250,000	50%	$ 125,000	$ -	$ 125,000	$ 125,000	$ -
6.3.2 Fire Master Plan	2023 - 2023	$ 250,000	$ -	$ 250,000	50%	$ 125,000	$ -	$ 125,000	$ 125,000	$ -
Subtotal Fire Master Plan		$ 500,000	$ -	$ 500,000		$ 250,000	$ -	$ 250,000	$ 250,000	$ -
TOTAL FIRE		**$ 43,264,400**	**$ -**	**$ 43,264,400**		**$ 2,500,000**	**$ -**	**$ 40,764,400**	**$ 40,764,400**	**$ -**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$28,940,268
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$114.48**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$11,824,132
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$84.34**

2018 - 2027 Net Funding Envelope	$131,868,589

HEMSON

APPENDIX D.6
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
FIRE
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

FIRE	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.0	($2,925.4)	($11,740.1)	($9,012.4)	($6,232.4)	($3,234.0)	($3,246.1)	($3,153.9)	($3,051.2)	($1,582.4)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Fire: Non Inflated	$6,113.3	$11,313.6	$0.0	$0.0	$0.0	$2,886.1	$2,797.4	$2,797.4	$1,516.2	$1,516.2	**$28,940.3**
- Fire: Inflated	$6,113.3	$11,539.9	$0.0	$0.0	$0.0	$3,186.5	$3,150.3	$3,213.3	$1,776.5	$1,812.0	**$30,791.9**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$3,266.2	$3,117.7	$3,315.4	$3,219.3	$3,283.7	$3,349.4	$3,416.4	$3,484.7	$3,385.0	$3,452.7	**$33,290.6**
INTEREST											
- Interest on Opening Balance	$0.0	($160.9)	($645.7)	($495.7)	($342.8)	($177.9)	($178.5)	($173.5)	($167.8)	($87.0)	**($2,429.8)**
- Interest on In-year Transactions	($78.3)	($231.6)	$58.0	$56.3	$57.5	$2.9	$4.7	$4.7	$28.1	$28.7	**($69.0)**
TOTAL REVENUE	$3,187.9	$2,725.2	$2,727.7	$2,780.0	$2,998.4	$3,174.4	$3,242.5	$3,316.0	$3,245.4	$3,394.4	**$30,791.9**
CLOSING CASH BALANCE	($2,925.4)	($11,740.1)	($9,012.4)	($6,232.4)	($3,234.0)	($3,246.1)	($3,153.9)	($3,051.2)	($1,582.4)	$0.0	

2018 Adjusted Charge Per Capita	**$120.48**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX D.6
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
FIRE
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

FIRE	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.00	($1,283.96)	($4,891.01)	($3,838.75)	($2,702.20)	($1,476.19)	($1,479.95)	($1,440.83)	($1,397.15)	($724.57)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Fire: Non Inflated	$2,497.7	$4,622.4	$0.0	$0.0	$0.0	$1,179.2	$1,142.9	$1,142.9	$619.5	$619.5	**$11,824.1**
- Fire: Inflated	$2,497.7	$4,714.8	$0.0	$0.0	$0.0	$1,301.9	$1,287.1	$1,312.9	$725.8	$740.3	**$12,580.6**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$1,248.1	$1,273.1	$1,298.5	$1,324.5	$1,351.0	$1,378.0	$1,405.6	$1,433.7	$1,462.4	$1,491.6	**$13,666.5**
INTEREST											
- Interest on Opening Balance	$0.0	($70.6)	($269.0)	($211.1)	($148.6)	($81.2)	($81.4)	($79.2)	($76.8)	($39.9)	**($1,057.9)**
- Interest on In-year Transactions	($34.4)	($94.6)	$22.7	$23.2	$23.6	$1.3	$2.1	$2.1	$12.9	$13.1	**($27.9)**
TOTAL REVENUE	$1,213.7	$1,107.8	$1,052.3	$1,136.6	$1,226.0	$1,298.2	$1,326.2	$1,356.6	$1,398.4	$1,464.9	**$12,580.6**
CLOSING CASH BALANCE	($1,284.0)	($4,891.0)	($3,838.8)	($2,702.2)	($1,476.2)	($1,480.0)	($1,440.8)	($1,397.1)	($724.6)	$0.0	

2018 Adjusted Charge Per Employee	**$89.02**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D.7

Paramedic Services

HEMSON

Appendix D.7

Paramedic Services
Technical Appendix

This appendix provides a brief outline of historical service levels for Paramedic services, the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff and are based upon the proposed and approved capital budget, previous DC Background Studies, and other long-range planning documents.

The following discusses the individual components included in the Paramedic service category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital Forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 3	Cash Flow Analysis

A. Historical Service Levels and Calculation of Ten-Year Average Service Levels and Maximum Allowable Charges

Paramedic services currently operates out of approximately 50 stations, and several other related buildings and facilities that amount to over 290,100 square feet of building space. The buildings have a value of $159.53 million. The average unit cost of $550 per square foot to replace Paramedic buildings was derived by the average cost of constructing three of the most recent stations.

The land associated with each Paramedic building is also included in Table 1. The size of the land parcels were provided by Paramedic staff. The replacement value for the lands associated with the Paramedic facilities were taken from a database containing City-owned real estate assets provided by the City's Facilities and Real Estate Division. In total, the replacement cost of the land associated with Paramedic buildings amounts to $416.90 million.

There are currently 313 paramedic vehicles in the Paramedic fleet. Each vehicle unit cost includes the cost of acquiring the vehicle itself, in addition to equipment that is purchased and kept on board each vehicle. In total, the value of the vehicles in 2017 was $60.39 million. Finally, Paramedic equipment is also included in the level of service analysis and adds another $32.78 million to the inventory.

Table 1 provides a summary of the level of service and the calculation of the ten-year historical service level. The calculation of the maximum allowable funding envelope is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$147.39
Net Population & Employment Growth (2018 – 2027)	356,305
Maximum Allowable Funding Envelope	$52,515,837
Less: Ten per cent Legislated Reduction	$5,251,584
Discounted Maximum Allowable Funding Envelope	**$47,264,253**

The existing facilities have been examined and consideration has been made with regard to whether or not “excess capacity” exists within the City’s infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no “uncommitted excess capacity” exists within the City’s Paramedic infrastructure, and as such, no adjustments have been made to the service level calculations.

B. Development-Related Capital Forecast

The capital projects will result, in whole or in part, in increased capacity to meet the servicing needs of new development. The 2018–2027 development-related capital forecast includes the construction of five Paramedic buildings including an ambulance post and multi-function buildings as well as the addition of new equipment and vehicle at these stations. There is also a Paramedic services infrastructure study accounted for in the capital forecast. The total gross cost of this capital forecast is $151.26 million.

Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City’s “excess capacity” other than excess capacity which is “committed”. “Excess capacity” is undefined in the DCA, but is considered to relate to the capacity available to meet some or all of the increase in need for

service in order to potentially represent a deduction. For Paramedic services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and feasibility work associated with planning new facilities. It is recognized that no “surplus” of capacity exists within Paramedic services.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

Grants, subsidies and other recoveries have been identified to fund the development-related projects to be recovered through development charges at a value of $56.25 million. As such, this amount has been deducted from the project cost.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development. Generally speaking, shares have been deducted from the net cost of projects that account for portions of the project that relate to state-of-good-repair or the replacement or reconstruction of existing facilities.

For the buildings that have a replacement and expansion component to them, the net increment gain in building space is deemed to be the development-related portion of the project, and the remaining is deemed to be the growth-related share. This percentage varies from project to project.

As for the acquisition of new power stretchers, the benefit to existing component has been calculated based on the replacement of 30 existing stretchers and the purchase of 100 new stretchers. In total, 70 net new stretchers will be added.

In total, $1.75 million is identified as the replacement and benefit to existing share.

3. Legislated Ten per cent Reduction

As this service is not identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs, less the replacement/benefit to existing shares, is made to each project.

In total, $9.33 million is identified as the ten per cent reduction share.

4. Post-2027 Benefit

In total, $36.67 million is attribute to growth occurring beyond 2027. This relates to the development-related capital forecast being in excess of the ten-year service level and maximum funding envelope of $47.26 million. The post-period benefit shares are still deemed to be development-related, however, not eligible for recovery in this by-law period. These shares will be examined for recovery through subsequent reviews of the DC by-law.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $47.26 million is included in the development charge calculation.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 71 per cent to residential development, and 29 per cent to the non-residential sector. This sector allocation is based upon future shares net population growth and employment growth.

Table 2 displays the 71 per cent allocation to the residential sector, or $33.55 million, and 29 per cent to the non-residential sector, or $13.71 million.

Table 2 also displays the calculation of the unadjusted per capita residential charge for Paramedic services. The $33.55 million in discounted development-related net capital costs are allocated to the 252,800 population forecast from new permits issued, yielding a per capita charge of $132.74 before cash flow adjustments.

The non-residential unadjusted charge per square metre is calculated by taking the $13.71 million allocated to the non-residential sector and dividing it by the 140,200 employment growth forecast. This yields an unadjusted charge of $97.79 per employee.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are,

therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and employee development charges. After cash flow consideration, the residential calculated charge increases to $135.02 per capita. The non-residential charge after cash flow increases to $99.72 per square metre of GFA.

The following table summarizes the calculation of the Paramedic services development charge.

PARAMEDIC SERVICES SUMMARY

10-year Hist. Service Level per pop & emp	2018 - 2027 Development-Related Capital Program		Unadjusted Development Charge		**Adjusted Development Charge**	
	Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$147.48	$151,260,000	$47,264,253	$132.74	$97.79	**$135.02**	**$99.72**

APPENDIX D.7
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PARAMEDIC SERVICES

BUILDINGS	# of Square Feet										UNIT COST
Station Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/sq. ft.)
Station 10 - 2015 Lawrence Avenue W.	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	$550
Station 11 - 1135 Caledonia Rd.	3,574	3,574	3,574	4,574	4,574	4,574	4,574	4,574	4,574	4,574	$550
Station 12 - 1535 Albion Rd.	1,938	1,938	2,188	2,188	2,188	2,188	2,188	2,188	2,188	2,188	$550
Station 13 - 555 Martin Grove Rd.	2,756	2,756	2,756	2,756	2,756	2,756	2,756	2,756	2,756	2,756	$550
Station 14 - 321 Rexdale Blvd. Unit 3	4,252	4,252	4,252	4,252	4,252	4,252	4,252	4,252	4,252	4,252	$550
Station 15 - 2753 Jane St.	1,701	1,701	1,951	1,951	1,951	1,951	1,951	1,951	1,951	1,951	$550
Station 18 - 643 Eglinton Ave. W.	1,346	1,346	1,346	5,665	5,665	5,665	5,665	5,665	5,665	5,665	$550
Station 19 - 2660 Eglinton Ave. W.	1,367	1,367	1,367	1,367	1,367	-	-	-	-	-	$550
Station 20 - 2430 Lawrence Ave. East	7,782	7,782	7,782	9,526	9,526	9,526	9,526	9,526	9,526	9,526	$550
Station 21 - 887 Pharmacy Ave.	2,798	2,798	2,798	4,298	4,298	4,298	4,298	4,298	4,298	4,298	$550
Station 22 - 3100 Eglinton Ave. E.	2,583	2,583	2,833	2,833	2,833	2,833	2,833	2,833	2,833	2,833	$550
Station 23 - 115 Parkway Forest Dr.	1,884	1,884	2,134	2,134	2,134	2,134	2,134	2,134	2,134	2,134	$550
Station 24 - 3061 Birchmount Rd.	2,659	2,659	2,659	2,659	2,659	2,659	2,659	2,659	2,659	2,659	$550
Station 25 - 8500 Sheppard Avenue East	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	$550
Station 26 - 4331 Lawrence Ave E	850	850	850	850	850	850	850	850	850	850	$550
Station 27 - 900 Tapscott Rd.	1,851	1,851	1,851	1,851	1,851	1,851	1,851	1,851	1,851	1,851	$550
Station 28 - 2900 Lawrence Ave. E.	2,600	2,600	2,600	5,100	5,100	5,100	5,100	5,100	5,100	5,100	$550
Station 29 - 4560 Sheppard Ave. E.	-	-	-	3,200	3,200	3,200	3,200	3,200	3,200	3,200	$550
Station 30 - 100 Turnberry Ave.	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	$550
Station 31 - 4219 Dundas St. West	2,831	2,831	2,831	2,831	2,831	2,831	2,831	2,831	2,831	2,831	$550
Station 32 - 9 Clendenan Ave.	3,219	3,219	3,219	3,219	3,219	3,219	3,219	3,219	3,219	3,219	$550
Station 33 - 760 Dovercourt Rd.	3,132	3,132	3,382	3,382	3,382	3,382	3,382	3,382	3,382	3,382	$550
Station 34 - 674 Markham St.	19,934	19,934	19,934	19,934	19,934	19,934	19,934	19,934	19,934	19,934	$550
Station 35 - 256 Manitoba Dr.	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	$550
Station 36 - 339 Queen's Quay	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	$550
Station 37 - 1288 Queen St. W.	4,413	4,413	4,413	4,413	4,413	4,413	4,413	4,413	4,413	4,413	$550
Station 38 - 259 Horner Ave.	5,102	5,102	5,102	7,202	7,202	7,202	7,202	7,202	7,202	7,202	$550
Station 39 - 155 The East Mall	1,927	1,927	1,927	1,927	1,927	1,927	1,927	1,927	1,927	1,927	$550
Station 40 - 58 Richmond St. E.	12,799	12,799	12,799	13,299	13,299	13,299	13,299	13,299	13,299	13,299	$550
Station 41 - 1300 Pape Ave.	1,841	1,841	1,841	5,665	5,665	5,665	5,665	5,665	5,665	5,665	$550
Station 42 - 1535 Kingston Rd.	6,997	6,997	6,997	6,997	6,997	6,997	6,997	6,997	6,997	6,997	$550
Station 43 - 126 Pape Ave.	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	$550
Station 45 - 135 Davenport Rd.	11,496	11,496	11,496	11,496	11,496	11,496	11,496	11,496	11,496	11,496	$550
Station 46 - 105 Cedarvale Ave.	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	1,572	$550
Station 47 - 3600 St. Clair Ave, E.	1,787	1,787	2,037	2,037	2,037	2,037	2,037	2,037	2,037	2,037	$550
Station 51 - 61 Toryork Drive	3,500	3,500	3,500	7,000	7,000	7,000	7,000	7,000	7,000	7,000	$550
Station 52 - 170 Plewes Rd	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	$550
Station 54 - 4135 Bathurst St.	1,324	1,324	1,324	6,600	6,600	6,600	6,600	6,600	6,600	6,600	$550
Station 55 - 5700 Bathurst Street	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	$550

APPENDIX D.7
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PARAMEDIC SERVICES

BUILDINGS Cont'd	# of Square Feet										UNIT COST
Station Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/sq. ft.)
Station 56 - 3300 Bayview Ave.	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	$550
Station 57 - 2075 Bayview Ave.	2,142	2,142	2,142	2,142	2,142	2,142	2,142	2,142	2,142	2,142	$550
Station 58 - 12 Canterbury Place	3,820	3,820	3,820	3,820	3,820	3,820	3,820	3,820	3,820	3,820	$550
Marine Unit - 259 Queens Quay W	-	-	-	-	-	-	-	-	-	-	$550
Station D1 - NW - 50 Toryork Ave.	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	$550
Station D2 - NE - 2430 Lawrence Ave. East (1)	-	-	-	-	-	-	-	-	-	-	$550
Station D3 - SW - 100 Turnberry Ave.	1,561	1,561	1,561	1,561	1,561	1,561	1,561	1,561	1,561	1,561	$550
Station D4 - SE - 1535 Kingston Rd. (2)	-	-	-	-	-	-	-	-	-	-	$550
Station D5 - 5700 Bathurst Street (3)	-	-	-	-	-	-	-	-	-	-	$550
HQ - 4330 Dufferin St	52,812	52,812	52,812	52,812	52,812	52,812	52,812	52,812	52,812	52,812	$550
Station 26P - 5316 Lawrence Ave. E.	850	850	850	850	850	850	850	850	850	850	$550
Station 09 - 866 Richmond Street W.	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	$550
895 Eastern Ave	2,500	2,500	2,500	2,500	-	-	-	-	-	-	$550
4800 Sheppard Ave E	2,600	2,600	2,600	-	-	-	-	-	-	-	$550
35 Avenue of the Islands	-	500	500	500	500	500	500	500	500	500	$550
3325 Warden Ave (Temporary site)	800	800	800	-	-	-	-	-	-	-	$550
590 Jane St (Temporary site)	500	500	500	-	-	-	-	-	-	-	$550
3 Lunness Rd (Temporary site)	500	500	500	-	-	-	-	-	-	-	$550
1300 Wilson Avenue - Multi-Function Stn #1	-	-	-	-	-	-	-	-	-	27,500	$550
									-	-	
Total (sq.ft.)	**239,361**	**239,861**	**241,361**	**266,424**	**263,924**	**262,557**	**262,557**	**262,557**	**262,557**	**290,057**	
Total ($000)	**$131,648.6**	**$131,923.6**	**$132,748.6**	**$146,533.2**	**$145,158.2**	**$144,406.4**	**$144,406.4**	**$144,406.4**	**$144,406.4**	**$159,531.4**	

(1) Same property as Station 20
(2) Same property as Station 42
(3) Same property as Station 555

APPENDIX D.7
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PARAMEDIC SERVICES

LAND	# of Hectares										UNIT COST
Station Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/ha)
Station 10 - 2015 Lawrence Avenue W.	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	$22,030,000
Station 11 - 1135 Caledonia Rd.	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	$22,030,000
Station 12 - 1535 Albion Rd.	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	$5,040,000
Station 13 - 555 Martin Grove Rd.	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	3.00	$5,040,000
Station 14 - 321 Rexdale Blvd. Unit 3											
Station 15 - 2753 Jane St.	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$22,030,000
Station 18 - 643 Eglinton Ave. W.	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	$22,030,000
Station 19 - 2660 Eglinton Ave. W.	0.08	0.08	0.08	0.08	0.08	-	-	-	-	-	$22,030,000
Station 20 - 2430 Lawrence Ave. East	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	$22,030,000
Station 21 - 887 Pharmacy Ave.	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	$22,030,000
Station 22 - 3100 Eglinton Ave. E.	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	$22,030,000
Station 23 - 115 Parkway Forest Dr.											
Station 24 - 3061 Birchmount Rd.	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	$22,030,000
Station 25 - 8500 Sheppard Avenue East	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	$22,030,000
Station 26 - 4331 Lawrence Ave E											
Station 27 - 900 Tapscott Rd.	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	$5,040,000
Station 28 - 2900 Lawrence Ave. E.	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	$5,040,000
Station 29 - 4560 Sheppard Ave. E.	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	$22,030,000
Station 30 - 100 Turnberry Ave.	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	$22,030,000
Station 31 - 4219 Dundas St. West	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	$22,030,000
Station 32 - 9 Clendenan Ave.	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$88,450,000
Station 33 - 760 Dovercourt Rd.	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$88,450,000
Station 34 - 674 Markham St.	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	$88,450,000
Station 35 - 256 Manitoba Dr.	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	$88,450,000
Station 36 - 339 Queen's Quay	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	$88,450,000
Station 37 - 1288 Queen St. W.	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	$22,030,000
Station 38 - 259 Horner Ave.	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	$22,030,000
Station 39 - 155 The East Mall	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Station 40 - 58 Richmond St. E.	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$88,450,000
Station 41 - 1300 Pape Ave.	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	$22,030,000
Station 42 - 1535 Kingston Rd.	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	$22,030,000
Station 43 - 126 Pape Ave.	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	$22,030,000
Station 45 - 135 Davenport Rd.	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	$88,450,000
Station 46 - 105 Cedarvale Ave.	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$22,030,000
Station 47 - 3600 St. Clair Ave, E.	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	$22,030,000
Station 51 - 61 Toryork Drive	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	$5,040,000
Station 52 - 170 Plewes Rd	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	$22,030,000

APPENDIX D.7
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PARAMEDIC SERVICES

LAND - cont'd	**# of Hectares**										**UNIT COST**
Station Name	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/ha)**
Station 54 - 4135 Bathurst St.	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	$22,030,000
Station 55 - 5700 Bathurst Street	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	$22,030,000
Station 56 - 3300 Bayview Ave.	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	$22,030,000
Station 58 - 12 Canterbury Place	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	$22,030,000
Station D1 - NW - 50 Toryork Ave.	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	$5,040,000
HQ - 4330 Dufferin St	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	$5,040,000
East Facilities - 5316 Lawrence Ave. E.	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	$22,030,000
West Facilities - 866 Richmond Street W.	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	$88,450,000
1300 Wilson Avenue - Multi-Function Stn #1	-	-	-	-	-	1.22	1.22	1.22	1.22	1.22	$22,030,000
Progress Avenue - Multi-Function Stn #2 (1)	-	-	-	-	-	-	-	-	2.43	2.43	$0
Total (ha)	**19.28**	**19.28**	**19.28**	**19.28**	**19.28**	**20.42**	**20.42**	**20.42**	**22.85**	**25.29**	
Total ($000)	**$379,493.4**	**$379,493.4**	**$379,493.4**	**$379,493.4**	**$379,493.4**	**$404,561.7**	**$404,561.7**	**$404,561.7**	**$404,561.7**	**$416,903.6**	

(1) Site is currently vacant but included in the inventory for reference. Will be used for a future facility.

APPENDIX D.7
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PARAMEDIC SERVICES

VEHICLES	**# of Vehicles**										**UNIT COST**
Type of Vehicle	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/unit)**
Ambulance Type II	1	1	1	1	1	1	1	1	-	-	$197,200
Ambulance Type III	155	155	155	155	155	155	155	155	186	186	$225,339
BUS	2	2	2	2	2	2	2	2	2	2	$1,500,000
CART / GATORS	9	9	9	9	9	9	9	9	9	3	$28,923
DECOMMISSIONED AMBULANCE	10	10	10	10	10	10	10	10	10	10	$162,339
DISPLAY ANTIQUES VEHICLES	-	-	-	-	-	-	-	-	-	-	$0
HEAVY TRUCK	9	9	9	9	9	4	4	4	2	2	$225,000
LIGHT TRUCK	11	11	11	11	11	11	11	11	11	11	$113,704
PRIVATE PASSENGER VEHICLE	14	14	14	14	14	17	17	17	17	17	$115,991
EMERGENCY RESPONSE VEHICLE	76	76	76	76	76	76	76	76	76	76	$128,750
TRACTOR	1	1	1	1	1	1	1	-	-	-	$18,600
TRAILER	3	3	3	3	3	3	3	3	3	3	$6,546
VAN	2	2	2	2	2	3	3	3	3	3	$95,139
Total (#)	**293**	**293**	**293**	**293**	**293**	**292**	**292**	**291**	**319**	**313**	
Total ($000)	**$54,921.6**	**$54,921.6**	**$54,921.6**	**$54,921.6**	**$54,921.6**	**$54,239.7**	**$54,239.7**	**$54,221.1**	**$60,559.4**	**$60,385.9**	

APPENDIX D.7
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PARAMEDIC SERVICES

PS EQUIPMENT	**# of Pieces of Equipment**										**UNIT COST**
Description	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**($/unit)**
Analog/ Digital TDM electronics	1	1	1	1	1	-	-	-	-	-	$21,700
Crown 35RRTT Forklift	1	1	1	1	1	1	1	1	1	1	$32,100
Diesel generator	5	5	5	8	8	8	8	8	8	8	$271,600
UPS at HQ - Power System	2	2	2	2	2	2	2	2	2	2	$2,138,600
Fuel Storage Tank-4330 Dufferin St.	2	2	2	1	1	1	-	-	-	-	$12,700
Repeater - 800 MHZ (Subway)	2	2	2	2	2	-	-	-	-	-	$16,300
Repeater - Provincial Radio		-	-	-	-	1	1	1	1	1	$16,300
Radio system (EMS share only)	1	1	1	1	1	1	1	-	-	-	$2,172,500
TRIP Radio system (PS share only)		-	-	-	-	-	-	1	1	1	$10,000,000
Plotter	1	1	1	1	1	1	1	1	1	1	$27,200
Radio consoles	20	20	20	20	20	20	20	20	20	20	$21,700
Radio repeaters	5	5	5	5	5	-	-	-	-	-	$16,300
Radio/Telephone dispatch	2	2	2	2	2	2	2	2	2	2	$1,086,200
Vehicle & Portable Radios		-	-	-	-	-	-	-	200	200	$6,500
STRATUS FT SERVER	1	1	1	1	1	1	1	1	1	1	$100,000
CACC Systems Servers	59	59	59	59	59	59	59	59	59	59	$5,400
TSI Portacount & N95	4	4	4	4	4	4	4	4	4	4	$18,000
Voice Loggers	5	5	5	5	5	5	3	3	3	3	$200,000
Stretchers	150	150	150	150	180	180	180	180	180	180	$4,200
Power Stretchers	-	-	-	-	-	-	-	-	210	210	$50,000
Total (#)	**261**	**261**	**261**	**263**	**293**	**286**	**283**	**283**	**693**	**693**	
Total ($000)	**$12,755.2**	**$12,755.2**	**$12,755.2**	**$13,557.3**	**$13,683.3**	**$13,563.8**	**$13,151.1**	**$20,978.6**	**$32,778.6**	**$32,778.6**	

APPENDIX D.7
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
TORONTO PARAMEDIC SERVICES

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historic Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048
Historic Employment	1,406,700	1,418,100	1,429,600	1,441,100	1,470,100	1,499,700	1,529,900	1,560,700	1,592,100	1,608,200
Total Historic Population & Employment	3,932,100	3,961,300	3,990,000	4,056,200	4,105,276	4,152,704	4,196,985	4,256,770	4,323,700	4,361,248

INVENTORY SUMMARY ($000)

Buildings	$131,648.6	$131,923.6	$132,748.6	$146,533.2	$145,158.2	$144,406.4	$144,406.4	$144,406.4	$144,406.4	$159,531.4
Land	$379,493.4	$379,493.4	$379,493.4	$379,493.4	$379,493.4	$404,561.7	$404,561.7	$404,561.7	$404,561.7	$416,903.6
Vehicles	$54,921.6	$54,921.6	$54,921.6	$54,921.6	$54,921.6	$54,239.7	$54,239.7	$54,221.1	$60,559.4	$60,385.9
Ps Equipment	$12,755.2	$12,755.2	$12,755.2	$13,557.3	$13,683.3	$13,563.8	$13,151.1	$20,978.6	$32,778.6	$32,778.6
Total ($000)	**$578,818.7**	**$579,093.7**	**$579,918.7**	**$594,505.4**	**$593,256.4**	**$616,771.5**	**$616,358.8**	**$624,167.7**	**$642,306.0**	**$669,599.4**

SERVICE LEVEL ($/capita & employment)

											Average Service Level
Buildings	$33.48	$33.30	$33.27	$36.13	$35.36	$34.77	$34.41	$33.92	$33.40	$36.58	$34.46
Land	$96.51	$95.80	$95.11	$93.56	$92.44	$97.42	$96.39	$95.04	$93.57	$95.59	$95.14
Vehicles	$13.97	$13.86	$13.76	$13.54	$13.38	$13.06	$12.92	$12.74	$14.01	$13.85	$13.51
Ps Equipment	$3.24	$3.22	$3.20	$3.34	$3.33	$3.27	$3.13	$4.93	$7.58	$7.52	$4.28
Total ($/capita & employment)	**$147.20**	**$146.19**	**$145.34**	**$146.57**	**$144.51**	**$148.52**	**$146.86**	**$146.63**	**$148.55**	**$153.53**	**$147.39**

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
TORONTO PARAMEDIC SERVICES

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2008 - 2017	$147.39
Net Population & Employment Growth 2018 - 2027	356,305
Maximum Allowable Funding Envelope	$52,515,837
Less: 10% Legislated Reduction	$5,251,584
Maximum Allowable Funding Envelope	**$47,264,253**

APPENDIX D.7
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL PROGRAM
PARAMEDIC SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs	
					BTE[1] %	Replacement & BTE Shares	10% Reduction		2018-2027	Post 2027
7.0 PARAMEDIC SERVICES										
7.1 Buildings, Land & Furnishings										
7.1.1 North West District - Multi-Function Station	2018 - 2018	$ 1,000,000	$ -	$ 1,000,000	29%	$ 295,000	$ 70,500	$ 634,500	$ 634,500	$ -
7.1.2 Multi-Function Station #2	2019 - 2022	$ 24,950,000	$ -	$ 24,950,000	0%	$ -	$ 2,495,000	$ 22,455,000	$ 22,455,000	$ -
7.1.3 Ambulance Post -Rexdale	2019 - 2020	$ 2,000,000	$ -	$ 2,000,000	0%	$ -	$ 200,000	$ 1,800,000	$ 1,800,000	$ -
7.1.4 Ambulance Post #1	2023 - 2025	$ 2,000,000	$ -	$ 2,000,000	0%	$ -	$ 200,000	$ 1,800,000	$ 1,800,000	$ -
7.1.5 New Communication Centre	2025 - 2025	$ 75,000,000	$ 56,250,000	$ 18,750,000	0%	$ -	$ 1,875,000	$ 16,875,000	$ 16,875,000	$ -
7.1.6 Multi-Function Station #3	2024 - 2027	$ 19,500,000	$ -	$ 19,500,000	0%	$ -	$ 1,950,000	$ 17,550,000	$ 230,253	$ 17,319,747
7.1.7 Multi-Function Station #4	2024 - 2027	$ 21,500,000	$ -	$ 21,500,000	0%	$ -	$ 2,150,000	$ 19,350,000	$ -	$ 19,350,000
Subtotal Buildings, Land & Furnishings		$ 145,950,000	$ 56,250,000	$ 89,700,000		$ 295,000	$ 8,940,500	$ 80,464,500	$ 43,794,753	$ 36,669,747
7.2 Equipment										
7.2.1 New Power Stretchers	2018 - 2018	$ 4,600,000	$ -	$ 4,600,000	30%	$ 1,380,000	$ 322,000	$ 2,898,000	$ 2,898,000	$ -
Subtotal Equipment		$ 4,600,000	$ -	$ 4,600,000		$ 1,380,000	$ 322,000	$ 2,898,000	$ 2,898,000	$ -
7.3 Vehicles										
7.3.1 Paramedicine Program Vehicles (8 Tahoes)	2018 - 2027	$ 560,000	$ -	$ 560,000	0%	$ -	$ 56,000	$ 504,000	$ 504,000	$ -
Subtotal Vehicles		$ 560,000	$ -	$ 560,000		$ -	$ 56,000	$ 504,000	$ 504,000	$ -
7.4 Studies										
7.4.1 Paramedic Services Infrastructure Study	2018 - 2018	$ 150,000	$ -	$ 150,000	50%	$ 75,000	$ 7,500	$ 67,500	$ 67,500	$ -
Subtotal Studies		$ 150,000	$ -	$ 150,000		$ 75,000	$ 7,500	$ 67,500	$ 67,500	$ -
TOTAL PARAMEDIC SERVICES		**$ 151,260,000**	**$ 56,250,000**	**$ 95,010,000**		**$ 1,750,000**	**$ 9,326,000**	**$ 83,934,000**	**$ 47,264,253**	**$ 36,669,747**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$33,554,773
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$132.74**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$13,709,481
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$97.79**

2018 - 2027 Net Funding Envelope	$47,264,253

HEMSON

APPENDIX D.7
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PARAMEDIC SERVICES
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

PARAMEDIC SERVICES	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	$1,087.5	($168.5)	($1,341.8)	($2,093.2)	($2,899.5)	$241.7	$3,569.9	($7,025.7)	($3,643.5)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Paramedic Services: Non Inflated	$2,591.6	$4,660.2	$4,660.2	$4,021.2	$4,021.2	$461.7	$502.6	$12,482.8	$76.6	$76.6	**$33,554.8**
- Paramedic Services: Inflated	$2,591.6	$4,753.4	$4,848.4	$4,267.3	$4,352.7	$509.8	$566.0	$14,338.9	$89.8	$91.6	**$36,409.5**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$3,660.4	$3,493.9	$3,715.5	$3,607.9	$3,680.0	$3,753.6	$3,828.7	$3,905.3	$3,793.5	$3,869.4	**$37,308.3**
INTEREST											
- Interest on Opening Balance	$0.0	$38.1	($9.3)	($73.8)	($115.1)	($159.5)	$8.5	$124.9	($386.4)	($200.4)	**($773.0)**
- Interest on In-year Transactions	$18.7	($34.6)	($31.2)	($18.1)	($18.5)	$56.8	$57.1	($286.9)	$64.8	$66.1	**($125.9)**
TOTAL REVENUE	$3,679.1	$3,497.4	$3,675.1	$3,515.9	$3,546.4	$3,650.9	$3,894.3	$3,743.3	$3,471.9	$3,735.1	**$36,409.5**
CLOSING CASH BALANCE	$1,087.5	($168.5)	($1,341.8)	($2,093.2)	($2,899.5)	$241.7	$3,569.9	($7,025.7)	($3,643.5)	$0.0	

2018 Adjusted Charge Per Capita	**$135.02**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX D.7
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PARAMEDIC SERVICES
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

PARAMEDIC SERVICES	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.00	$345.12	($173.09)	($723.50)	($1,030.36)	($1,359.43)	($75.59)	$1,286.89	($3,037.55)	($1,575.28)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Paramedic Services: Non Inflated	$1,058.8	$1,904.0	$1,904.0	$1,642.9	$1,642.9	$188.7	$205.4	$5,100.1	$31.3	$31.3	**$13,709.5**
- Paramedic Services: Inflated	$1,058.8	$1,942.1	$1,980.9	$1,743.5	$1,778.4	$208.3	$231.3	$5,858.4	$36.7	$37.4	**$14,875.8**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$1,398.0	$1,426.0	$1,454.5	$1,483.6	$1,513.3	$1,543.5	$1,574.4	$1,605.9	$1,638.0	$1,670.8	**$15,308.0**
INTEREST											
- Interest on Opening Balance	$0.0	$12.1	($9.5)	($39.8)	($56.7)	($74.8)	($4.2)	$45.0	($167.1)	($86.6)	**($381.5)**
- Interest on In-year Transactions	$5.9	($14.2)	($14.5)	($7.1)	($7.3)	$23.4	$23.5	($116.9)	$28.0	$28.6	**($50.6)**
TOTAL REVENUE	$1,404.0	$1,423.9	$1,430.5	$1,436.7	$1,449.3	$1,492.1	$1,593.7	$1,534.0	$1,499.0	$1,612.7	**$14,875.8**
CLOSING CASH BALANCE	$345.1	($173.1)	($723.5)	($1,030.4)	($1,359.4)	($75.6)	$1,286.9	($3,037.6)	($1,575.3)	($0.0)	

2018 Adjusted Charge Per Employee	**$99.72**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

Appendix D.8

Development-Related Studies

Appendix D.8

Development-Related Studies
Technical Appendix

This appendix provides a brief outline of the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff and are based upon the proposed and approved capital budgets, previous DC Background Studies, and other long range planning documents.

The following discusses the individual components included in the Development-Related Studies category. The analysis is set out in the tables which follow. The tables include:

Table 1	2018–2027 Development-Related Capital Forecast and Calculation ofthe Discounted Growth-Related Net Capital Costs
Table 2	Cash Flow Analysis

A. The Development-Related Capital Forecast

The capital forecast will result, in whole or in part, in increased capacity to meet the servicing needs of new development. The 2018–2027 development-related capital forecast includes studies for the City Planning, Transportation Services, and Finance Divisions. Also included are studies directly related to planning in the Central Waterfront and Port Lands area of the City.

The City Planning studies amount to $74.26 million and they include studies such as the new Official Plan (OP), Zoning By-law, OP Compliance Review, Transportation and Transit Planning Studies, Avenue Studies, and Growth Studies. The Central Waterfront and Port Lands Area Studies are related to the Lower Don Lands, Lower Yonge Planning Studies, East Precinct Plan, and Lower Don Flood Protection Due Diligence.

B. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

The reductions to development-related studies are related to upper-tier grants from the federal and provincial level of government.

In total, $21.89 million in grants have been identified and applied to the DC capital forecast.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development. Generally speaking, shares have been deducted from the net cost of studies that account for portions of the study that benefits the existing community of Toronto.

Most of the studies are driven largely by new development, including the Central Waterfront and Port Lands area studies. There are some studies, however, that the City would undertake even in the absence of development (i.e. Official Plans). The Official Plan sets out the City's vision and policy framework for growth and where and how growth will take place. For studies that confer some benefit to the existing development, a ten per cent deduction has been made to the net cost of the study.

In total, $1.42 million is identified as the replacement and benefit to existing share.

3. Legislated Ten per cent Reduction

As this service is not identified in Section 5 (5) of the DCA, a ten per cent reduction to the net costs, less the replacement/benefit to existing shares, is made to each project.

In total, $5.10 million is identified as the ten per cent reduction share.

4. Post-2027 Benefit

No post-period benefit allocation has been made to the development-related costs. The total development-related costs have been brought forward to the development-charge calculation.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $45.86 million is included in the development charge calculation.

C. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 71 per cent to residential development, and 29 per cent to the non-residential sector. This sector allocation is based upon future shares of net population growth and employment growth.

Table 1 displays the 71 per cent allocation to the residential sector, or $32.56 million, and 29 per cent to the non-residential sector, or $13.30 million.

Table 1 also displays the calculation of the unadjusted per capita residential charge for Development-Related Studies. The $32.56 million in discounted development-related net capital costs are allocated to population forecast in new permits issued, yielding a per capita charge of $128.80 before cash flow adjustments.

The non-residential unadjusted charge per square metre is calculated by taking the $13.30 million allocated to the non-residential sector and dividing it by the 140,200 employment growth forecast. This yields an unadjusted charge of $94.88 per employee.

D. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 2 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee development charges. After cash flow consideration, the residential calculated charge increases to $137.60 per capita. The non-residential charge after cash flow increases to $101.68 per employee.

The following table summarizes the calculation of the Development-Related Studies Services development charge.

DEVELOPMENT-RELATED STUDIES SUMMARY

2018 - 2027		Unadjusted		**Adjusted**	
Development-Related Capital Program		Development Charge		**Development Charge**	
Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$74,264,202	$45,860,544	$128.80	$94.88	**$137.60**	**$101.68**

APPENDIX D.8
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
DEVELOPMENT-RELATED STUDIES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs	
					BTE[1] %	Replacement & BTE Shares	10% Reduction		2018-2027	Post 2027
8.0 DEVELOPMENT-RELATED STUDIES										
8.1 Studies										
8.1.1 New Official Plan	2018 - 2027	$ 3,900,000	$ -	$ 3,900,000	10%	$ 390,000	$ 351,000	$ 3,159,000	$ 3,159,000	$ -
8.1.2 New Zoning By-law	2019 - 2027	$ 1,500,000	$ -	$ 1,500,000	10%	$ 150,000	$ 135,000	$ 1,215,000	$ 1,215,000	$ -
8.1.3 OP Compliance Review	2021 - 2023	$ 945,000	$ -	$ 945,000	10%	$ 95,000	$ 85,000	$ 765,000	$ 765,000	$ -
8.1.4 Transportation & Transit Planning Studies	2018 - 2027	$ 5,200,000	$ -	$ 5,200,000	10%	$ 520,000	$ 468,000	$ 4,212,000	$ 4,212,000	$ -
8.1.5 Avenue Studies	2018 - 2027	$ 2,600,000	$ -	$ 2,600,000	10%	$ 260,000	$ 234,000	$ 2,106,000	$ 2,106,000	$ -
8.1.6 Growth Studies	2018 - 2027	$ 14,480,000	$ -	$ 14,480,000	0%	$ -	$ 1,448,000	$ 13,032,000	$ 13,032,000	$ -
8.1.7 Finance Studies - Growth Related	2018 - 2027	$ 2,000,000	$ -	$ 2,000,000	0%	$ -	$ 200,000	$ 1,800,000	$ 1,800,000	$ -
8.1.8 LDL & Port Lands Planning & EAs	2018 - 2018	$ 28,128,671	$ 19,613,744	$ 8,514,927	0%	$ -	$ 851,493	$ 7,663,434	$ 7,663,434	$ -
8.1.9 Lower Yonge Planning Studies	2018 - 2018	$ 7,810,531	$ 1,579,298	$ 6,231,233	0%	$ -	$ 623,123	$ 5,608,110	$ 5,608,110	$ -
8.1.10 Keating East Precinct Plan	2018 - 2020	$ 700,000	$ 700,000	$ -	0%	$ -	$ -	$ -	$ -	$ -
8.1.11 Lower Don Flood Protection Due Diligencence	2018 - 2018	$ 7,000,000	$ -	$ 7,000,000	0%	$ -	$ 700,000	$ 6,300,000	$ 6,300,000	$ -
Subtotal Studies		$ 74,264,202	$ 21,893,042	$ 52,371,160		$ 1,415,000	$ 5,095,616	$ 45,860,544	$ 45,860,544	$ -
TOTAL DEVELOPMENT-RELATED STUDIES		**$ 74,264,202**	**$ 21,893,042**	**$ 52,371,160**		**$ 1,415,000**	**$ 5,095,616**	**$ 45,860,544**	**$ 45,860,544**	**$ -**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$32,558,223
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$128.80**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$13,302,321
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$94.88**

APPENDIX D.8
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
DEVELOPMENT-RELATED STUDIES
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

DEVELOPMENT-RELATED STUDIES	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	($12,216.9)	($11,156.3)	($9,845.4)	($8,808.0)	($7,682.0)	($6,461.9)	($4,934.4)	($3,285.2)	($1,703.7)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Development-Related Studies: Non Inflated	$15,620.4	$1,821.6	$1,821.6	$2,002.7	$2,002.7	$2,002.7	$1,821.6	$1,821.6	$1,821.6	$1,821.6	**$32,558.2**
- Development-Related Studies: Inflated	$15,620.4	$1,858.1	$1,895.2	$2,125.2	$2,167.8	$2,211.1	$2,051.5	$2,092.5	$2,134.3	$2,177.0	**$34,333.1**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$3,730.4	$3,560.8	$3,786.7	$3,676.9	$3,750.5	$3,825.5	$3,902.0	$3,980.0	$3,866.2	$3,943.5	**$38,022.6**
INTEREST											
- Interest on Opening Balance	$0.0	($671.9)	($613.6)	($541.5)	($484.4)	($422.5)	($355.4)	($271.4)	($180.7)	($93.7)	**($3,635.2)**
- Interest on In-year Transactions	($327.0)	$29.8	$33.1	$27.2	$27.7	$28.3	$32.4	$33.0	$30.3	$30.9	**($54.3)**
TOTAL REVENUE	$3,403.5	$2,918.7	$3,206.2	$3,162.6	$3,293.7	$3,431.2	$3,579.0	$3,741.7	$3,715.8	$3,880.7	**$34,333.1**
CLOSING CASH BALANCE	($12,216.9)	($11,156.3)	($9,845.4)	($8,808.0)	($7,682.0)	($6,461.9)	($4,934.4)	($3,285.2)	($1,703.7)	$0.0	

2018 Adjusted Charge Per Capita	**$137.60**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX D.8
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
DEVELOPMENT-RELATED STUDIES
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

DEVELOPMENT-RELATED STUDIES	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.00	($5,092.82)	($4,665.89)	($4,201.33)	($3,776.67)	($3,315.54)	($2,815.67)	($2,189.90)	($1,514.11)	($785.22)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Development-Related Studies: Non Inflated	$6,382.0	$744.3	$744.3	$818.2	$818.2	$818.2	$744.3	$744.3	$744.3	$744.3	**$13,302.3**
- Development-Related Studies: Inflated	$6,382.0	$759.2	$774.3	$868.3	$885.7	$903.4	$838.2	$854.9	$872.0	$889.5	**$14,027.5**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$1,425.5	$1,454.0	$1,483.1	$1,512.8	$1,543.0	$1,573.9	$1,605.4	$1,637.5	$1,670.2	$1,703.6	**$15,609.0**
INTEREST											
- Interest on Opening Balance	$0.0	($280.1)	($256.6)	($231.1)	($207.7)	($182.4)	($154.9)	($120.4)	($83.3)	($43.2)	**($1,559.6)**
- Interest on In-year Transactions	($136.3)	$12.2	$12.4	$11.3	$11.5	$11.7	$13.4	$13.7	$14.0	$14.2	**($21.9)**
TOTAL REVENUE	$1,289.2	$1,186.1	$1,238.9	$1,293.0	$1,346.8	$1,403.3	$1,463.9	$1,530.7	$1,600.9	$1,674.7	**$14,027.5**
CLOSING CASH BALANCE	($5,092.8)	($4,665.9)	($4,201.3)	($3,776.7)	($3,315.5)	($2,815.7)	($2,189.9)	($1,514.1)	($785.2)	$0.0	

2018 Adjusted Charge Per Employee	**$101.68**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D.9

Civic Improvements

HEMSON

Appendix D.9

Civic Improvements
Technical Appendix

This appendix for Civic Improvements provides a brief outline of the historical service levels for Civic Improvements, the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff and are based upon the proposed and approved capital budgets, and previous DC background studies.

The following discusses the individual components included in the Civic Improvements category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital Forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 2	Cash Flow Analysis

A. Historical Service Levels and Calculation of 10-Year Average Service Levels and Maximum Allowable Charges

The City's capital budget has included a provision for Civic Improvements for longer than ten years. From 2008 to 2017, the average amount the City has invested in this program was roughly $2.60 million per year. The proposed capital forecast is below this ten-year average and as such, is within the City's historical service levels for Civic Improvements.

Table 1 provides a summary of the level of service and the calculation of the ten-year historical service level. The calculation of the maximum allowable funding envelope is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$2,604.11
# of Years in Planning Period	10
Maximum Allowable Funding Envelope	$26,041,110
Less: Ten per cent Legislated Reduction	$2,604,110
Discounted Maximum Allowable Funding Envelope	**$23,436,990**

The existing facilities have been examined and consideration has been made with regard to whether or not "excess capacity" exists within the City's infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no "uncommitted excess capacity" exists within the City's Civic Improvements infrastructure, and as such, no adjustments have been made to the service level calculations.

B. Development-Related Capital Forecast

The capital projects will result, in whole or in part, in increased capacity to meet the servicing needs of new development. The 2018–2027 development-related capital forecast includes an annual expenditure on "Places", which involves the creation of special features such as plazas, fountains, gardens and interpretive displays. The timing of "Places" projects are closely linked with the Transportation Services' road improvements, however the capital costs do not overlapped. The last project in the capital forecast relates to the civic improvements for the recently proposed Etobicoke Civic Centre of $31.24 million[1]. In total, the gross costs of the capital forecast amounts to $60.53 million over the 2018-2027 planning period.

Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City's "excess capacity" other than excess capacity which is "committed". "Excess capacity" is undefined in the DCA, but is considered to relate to the capacity available to meet some or all of the increase in need for service in order to potentially represent a deduction. For Civic Improvement services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and

[1] As identified in Executive Committee Report Ex 28.12
https://www.toronto.ca/legdocs/mmis/2017/ex/bgrd/backgroundfile-107650.pdf

feasibility work associated with planning new facilities. It is recognized that no "surplus" of capacity exists within Civic Improvement services.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

No grants, subsidies or other recoveries have been identified to fund any of the development-related projects to be recovered through development charges. As such, no deductions have been made.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development.

The Civic Improvement Places projects are done on a City-wide basis and will confer some benefit to existing residents. A reduction of 15 per cent, a share which has been carried forward from the previous DC background studies, has been made to the net costs of the projects. As the civic improvements related to the Etobicoke Civic Centre project is a new project and not replacing any existing space, the project is treated as 100 per cent development-related.

In total, $4.39 million is identified as the replacement and benefit to existing share.

3. Legislated Ten per cent Reduction

As this service is not identified in Section 5(5) of the DCA, a ten per cent reduction to the net costs, less the replacement/benefit to existing shares, is made to each project.

In total, $5.61 million is identified as the ten per cent reduction share.

4. Post-2027 Benefit

In total, $27.09 million is attribute to growth occurring beyond 2027. This relates to the development-related capital forecast being in excess of the ten-year service level and maximum funding envelope of $23.44 million. The post-period benefit shares are still deemed to be development-related, however,

not eligible for recovery in this by-law period. These shares will be examined for recovery through subsequent reviews of the DC by-law.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $23.44 million is included in the development charge calculation.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 71 per cent to residential development, and 29 per cent to the non-residential sector. This sector allocation is based upon future shares of net population and employment growth.

Table 2 displays the 71 per cent allocation to the residential sector, or $16.64 million, and 29 per cent to the non-residential sector, or $6.80 million.

Table 2 also displays the calculation of the unadjusted per capita residential charge for Civic Improvements. The $16.64 million in discounted development-related net capital costs are allocated to the 252,800 population forecast from new permits issued yielding a per capita charge of $65.82 before cash flow adjustments.

The non-residential unadjusted charge per square metre is calculated by taking the $6.80 million allocated to the non-residential sector and dividing it by the 140,200 employment growth forecast. This yields an unadjusted charge of $48.49 per employee.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee development charges. After cash flow consideration, the residential calculated charge decreases slightly to $65.92 per capita. The non-residential charge after cash flow decreases slightly to $48.70 per employee.

The following table summarizes the calculation of the Civic Improvements development charge.

CIVIC IMPROVEMENTS SUMMARY

10-year Hist. Service Level per pop & emp	2018 - 2027 Development-Related Capital Program		Unadjusted Development Charge		**Adjusted Development Charge**	
	Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$2,604.11	$60,533,110	$23,436,990	$65.82	$48.49	**$65.92**	**$48.70**

APPENDIX D.9
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
CIVIC IMPROVEMENTS

	Total Value of Progam ($000)									
Description	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Places Annual Expenditures	$3,313,009	$2,701,031	$2,623,711	$1,993,157	$1,659,666	$2,261,720	$2,792,927	$3,888,879	$1,903,219	$2,903,735
Total ($000)	**$3,313.0**	**$2,701.0**	**$2,623.7**	**$1,993.2**	**$1,659.7**	**$2,261.7**	**$2,792.9**	**$3,888.9**	**$1,903.2**	**$2,903.7**

APPENDIX D.9
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
CIVIC IMPROVEMENTS

INVENTORY SUMMARY ($000)

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Places	$3,313.0	$2,701.0	$2,623.7	$1,993.2	$1,659.7	$2,261.7	$2,792.9	$3,888.9	$1,903.2	$2,903.7
Total ($000)	**$3,313.0**	**$2,701.0**	**$2,623.7**	**$1,993.2**	**$1,659.7**	**$2,261.7**	**$2,792.9**	**$3,888.9**	**$1,903.2**	**$2,903.7**

SERVICE LEVEL ($/capita & employment)

											Average Service Level
Places	$3,313.01	$2,701.03	$2,623.71	$1,993.16	$1,659.67	$2,261.72	$2,792.93	$3,888.88	$1,903.22	$2,903.74	$2,604.11
Total ($/capita & employment)	**$3,313.01**	**$2,701.03**	**$2,623.71**	**$1,993.16**	**$1,659.67**	**$2,261.72**	**$2,792.93**	**$3,888.88**	**$1,903.22**	**$2,903.74**	**$2,604.11**

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
CIVIC IMPROVEMENTS

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2008 - 2017	$2,604.11
10-year Planning Period	10
Maximum Allowable Funding Envelope	$26,041,100
Less: 10% Legislated Reduction	$ 2,604,110
Discounted Maximum Allowable Funding Envelope	$ 23,436,990

APPENDIX D.9
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
CIVIC IMPROVEMENTS

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs	
					BTE[1] %	Replacement & BTE Shares	10% Reduction		2018-2027	Post 2027
9.0 CIVIC IMPROVEMENTS										
9.1 Places										
9.1.1 Places - Annual Provision	2018 - 2018	$ 2,851,000	$ -	$ 2,851,000	15%	$ 428,000	$ 242,300	$ 2,180,700	$ 2,180,700	$ -
9.1.2 Places - Annual Provision	2019 - 2019	$ 2,883,000	$ -	$ 2,883,000	15%	$ 432,000	$ 245,100	$ 2,205,900	$ 2,205,900	$ -
9.1.3 Places - Annual Provision	2020 - 2020	$ 2,914,000	$ -	$ 2,914,000	15%	$ 437,000	$ 247,700	$ 2,229,300	$ 2,229,300	$ -
9.1.4 Places - Annual Provision	2021 - 2021	$ 2,923,000	$ -	$ 2,923,000	15%	$ 438,000	$ 248,500	$ 2,236,500	$ 2,236,500	$ -
9.1.5 Places - Annual Provision	2022 - 2022	$ 2,923,000	$ -	$ 2,923,000	15%	$ 438,000	$ 248,500	$ 2,236,500	$ 2,236,500	$ -
9.1.6 Places - Annual Provision	2023 - 2023	$ 2,923,000	$ -	$ 2,923,000	15%	$ 438,000	$ 248,500	$ 2,236,500	$ 2,236,500	$ -
9.1.7 Places - Annual Provision	2024 - 2024	$ 2,936,000	$ -	$ 2,936,000	15%	$ 440,000	$ 249,600	$ 2,246,400	$ 2,246,400	$ -
9.1.8 Places - Annual Provision	2025 - 2025	$ 2,936,000	$ -	$ 2,936,000	15%	$ 440,000	$ 249,600	$ 2,246,400	$ 2,246,400	$ -
9.1.9 Places - Annual Provision	2026 - 2026	$ 3,000,000	$ -	$ 3,000,000	15%	$ 450,000	$ 255,000	$ 2,295,000	$ 2,295,000	$ -
9.1.10 Places - Annual Provision	2027 - 2027	$ 3,000,000	$ -	$ 3,000,000	15%	$ 450,000	$ 255,000	$ 2,295,000	$ 2,295,000	$ -
9.1.11 Etobicoke Civic Centre - Civic Improvements	2018 - 2020	$ 31,244,110	$ -	$ 31,244,110	0%	$ -	$ 3,124,411	$ 28,119,699	$ 1,028,790	$ 27,090,909
Subtotal Places		$ 60,533,110	$ -	$ 60,533,110		$ 4,391,000	$ 5,614,211	$ 50,527,899	$ 23,436,990	$ 27,090,909
TOTAL CIVIC IMPROVEMENTS		**$ 60,533,110**	**$ -**	**$ 60,533,110**		**$ 4,391,000**	**$ 5,614,211**	**$ 50,527,899**	**$ 23,436,990**	**$ 27,090,909**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$16,638,851
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$65.82**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$6,798,139
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$48.49**

2018 - 2027 Net Funding Envelope	$23,436,990

HEMSON

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
CIVIC IMPROVEMENTS
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

CIVIC IMPROVEMENTS	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	($4.8)	($148.9)	($245.4)	($181.2)	($111.9)	($37.2)	$35.2	$112.4	$57.7	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Civic Improvements: Non Inflated	$1,791.6	$1,809.5	$1,826.1	$1,587.8	$1,587.8	$1,587.8	$1,594.8	$1,594.8	$1,629.3	$1,629.3	**$16,638.9**
- Civic Improvements: Inflated	$1,791.6	$1,845.7	$1,899.9	$1,685.0	$1,718.7	$1,753.0	$1,796.0	$1,831.9	$1,909.0	$1,947.2	**$18,178.0**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$1,787.0	$1,705.7	$1,813.9	$1,761.4	$1,796.6	$1,832.5	$1,869.2	$1,906.5	$1,852.0	$1,889.0	**$18,213.8**
INTEREST											
- Interest on Opening Balance	$0.0	($0.3)	($8.2)	($13.5)	($10.0)	($6.2)	($2.0)	$1.2	$3.9	$2.0	**($32.9)**
- Interest on In-year Transactions	($0.1)	($3.8)	($2.4)	$1.3	$1.4	$1.4	$1.3	$1.3	($1.6)	($1.6)	**($2.8)**
TOTAL REVENUE	$1,786.8	$1,701.6	$1,803.4	$1,749.2	$1,788.0	$1,827.7	$1,868.4	$1,909.1	$1,854.4	$1,889.5	**$18,178.0**
CLOSING CASH BALANCE	($4.8)	($148.9)	($245.4)	($181.2)	($111.9)	($37.2)	$35.2	$112.4	$57.7	$0.0	

2018 Adjusted Charge Per Capita	**$65.92**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
CIVIC IMPROVEMENTS
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

CIVIC IMPROVEMENTS	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.00	($50.63)	($112.71)	($186.65)	($160.19)	($131.54)	($100.56)	($70.41)	($37.88)	($19.65)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Civic Improvements: Non Inflated	$732.0	$739.3	$746.1	$648.7	$648.7	$648.7	$651.6	$651.6	$665.7	$665.7	**$6,798.1**
- Civic Improvements: Inflated	$732.0	$754.1	$776.2	$688.4	$702.2	$716.2	$733.8	$748.5	$780.0	$795.6	**$7,427.0**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$682.7	$696.4	$710.3	$724.5	$739.0	$753.8	$768.9	$784.2	$799.9	$815.9	**$7,475.7**
INTEREST											
- Interest on Opening Balance	$0.0	($2.8)	($6.2)	($10.3)	($8.8)	($7.2)	($5.5)	($3.9)	($2.1)	($1.1)	**($47.9)**
- Interest on In-year Transactions	($1.4)	($1.6)	($1.8)	$0.6	$0.6	$0.7	$0.6	$0.6	$0.3	$0.4	**($0.9)**
TOTAL REVENUE	$681.4	$692.0	$702.3	$714.9	$730.8	$747.2	$764.0	$781.0	$798.2	$815.2	**$7,427.0**
CLOSING CASH BALANCE	($50.6)	($112.7)	($186.7)	($160.2)	($131.5)	($100.6)	($70.4)	($37.9)	($19.6)	($0.0)	

2018 Adjusted Charge Per Employee	**$48.70**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D.10

Child Care

HEMSON

Appendix D.10

Child Care
Technical Appendix

This appendix provides a brief outline of historical service levels for Child Care services, the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff and are based upon the proposed and approved capital budgets, previous DC Background Studies, and other long-range planning documents.

The following discusses the individual components included in the Child Care service category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 3	Cash Flow Analysis

A. Historical Service Levels and Calculation of Ten-Year Average Service Levels and Maximum Allowable Charges

Child Care services are provided through three types of facilities: directly operated (group), directly operated (home), and purchased space. In total, the City had 29,000 Child Care spaces valued at $2,462.88 million in 2017. The replacement value used for a child care space is based upon the average cost recent construction estimates for Canoe Landing, St. John Evangelist and Bessarion child care facilities.

Table 1 provides a summary of the level of service and the calculation of the ten-year historical service level. The calculation of the maximum allowable funding envelope is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$515.58
Net Population & Employment Growth (2018 – 2027)	356,305
Maximum Allowable Funding Envelope	$183,703,883
Less: Ten per cent Legislated Reduction	$18,370,388
Discounted Maximum Allowable Funding Envelope	**$165,333,495**

The existing facilities have been examined and consideration has been made with regard to whether or not "excess capacity" exists within the City's infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no "uncommitted excess capacity" exists within the City's Child Care infrastructure, and as such, no adjustments have been made to the service level calculations.

B. The Development-Related Capital Forecast

The 2018–2027 development-related capital forecast includes new child care centres across the City and a provision for new equipment in new centres. These projects include the several net new facilities as well as retrofits to existing facilities. In total, the capital forecast amounts to $80.87 million. This is solely the City's share of the cost of the projects.

Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City's "excess capacity" other than excess capacity which is "committed". "Excess capacity" is undefined in the DCA, but is considered to relate to the capacity available to meet some or all of the increase in need for service in order to potentially represent a deduction. For Child Care services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and feasibility work associated with planning new facilities. It is recognized that no "surplus" of capacity exists within Child Care services.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

No grants, subsidies or other recoveries are anticipated for Child Care services. The City receives Federal and Provincial grants to fund these programs, however the costs included in the DC Study are net of these upper-level grants.

2. Replacement and Benefit to Existing Shares

The majority of the proposed new child care centres included in the DC capital forecast will not be replacing any existing facility, and will create additional child care spaces. That said, the existing TCH Needle Firway facility will be expanded by one additional room to the four existing. The replacement share reflects the portion of the works that relate to the existing rooms. The replacement share for the Etobicoke Civic Centre project reflects an existing 3,600 square feet of Child Care space that will be replaced by the new facilities.

In total, $7.05 million replacement or benefit to existing shares have been identified in this service. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development.

3. Legislated Ten per cent Reduction

As this service is not identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs, less the replacement/benefit to existing shares, is made to each project.

In total, $7.38 million is identified as the ten per cent reduction share.

4. Post-2027 Benefit

The total development related costs of the Child Care capital forecast – $66.44 million – is within the net funding envelope of $165.33 million. As such, the entire development related costs are eligible for recovery in the ten-year planning period of 2018 to 2027.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 71 per cent to residential development, and 29 per cent to the non-residential sector. This sector allocation is based upon future shares population growth in new permits issued (252,800) and employment growth in new space (140,200).

The unadjusted development charge summary table below Table 2 displays the 71 per cent allocation to the residential sector, or $47.17 million, and 29 per cent to the non-residential sector, or $19.27 million.

Table 2 also displays the calculation of the unadjusted per capita residential charge for Child Care. The $47.17 million in discounted development-related net capital costs are allocated to the 252,800 population forecast from new permits issued, yielding a per capita charge of $186.59 before cash flow adjustments. The non-residential unadjusted charge per square metre is calculated by taking the $19.27 million allocated to the non-residential sector and dividing it by the 140,200 employment growth forecast. This yields an unadjusted charge of $137.46 per employee.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding

requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee development charges. After cash flow consideration, the residential calculated charge increases to $206.66 per capita. The non-residential charge after cash flow increases to $152.71 per square metre of GFA.

The following table summarizes the calculation of the Child Care services development charge.

CHILD CARE SUMMARY						
10-year Hist.	2018 - 2027		Unadjusted		**Adjusted**	
Service Level	Development-Related Capital Program		Development Charge		**Development Charge**	
per pop & emp	Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$515.58	$80,869,994	$66,440,965	$186.59	$137.46	**$206.66**	**$152.71**

APPENDIX D.10
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
CHILD CARE

FACILITY	# of Subsidized Child Care Spaces										UNIT COST
Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/space)
Directly Operated											
Group	2,686	2,446	2,571	2,490	2,417	2,307	2,292	2,267	2,213	2,306	$85,000
Home	895	878	832	762	803	752	730	703	714	736	$85,000
Purchased Space											
Other subsidized space	20,402	20,796	20,608	20,664	20,780	20,967	21,863	23,052	24,037	25,933	$85,000
Total (#)	**23,983**	**24,120**	**24,011**	**23,916**	**24,000**	**24,026**	**24,885**	**26,022**	**26,964**	**28,975**	
Total ($000)	**$2,038,555.0**	**$2,050,200.0**	**$2,040,935.0**	**$2,032,860.0**	**$2,040,000.0**	**$2,042,210.0**	**$2,115,225.0**	**$2,211,870.0**	**$2,291,940.0**	**$2,462,875.0**	

Note: The City provides child cares spaces through as both physical spaces and through subsized programming. This inventory reflects all childcare spaces available.

APPENDIX D.10
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
CHILD CARE

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historic Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048
Historic Employment	1,406,700	1,418,100	1,429,600	1,441,100	1,470,100	1,499,700	1,529,900	1,560,700	1,592,100	1,608,200
Total Historic Population & Employment	3,932,100	3,961,300	3,990,000	4,056,200	4,105,276	4,152,704	4,196,985	4,256,770	4,323,700	4,361,248

INVENTORY SUMMARY ($000)

Facility	$2,038,555.0	$2,050,200.0	$2,040,935.0	$2,032,860.0	$2,040,000.0	$2,042,210.0	$2,115,225.0	$2,211,870.0	$2,291,940.0	$2,462,875.0
Total ($000)	**$2,038,555.0**	**$2,050,200.0**	**$2,040,935.0**	**$2,032,860.0**	**$2,040,000.0**	**$2,042,210.0**	**$2,115,225.0**	**$2,211,870.0**	**$2,291,940.0**	**$2,462,875.0**

SERVICE LEVEL ($/capita & employment)

											Average Service Level
Facility	$518.44	$517.56	$511.51	$501.17	$496.92	$491.78	$503.99	$519.61	$530.09	$564.72	$515.58
Total ($/capita & employment)	**$518.44**	**$517.56**	**$511.51**	**$501.17**	**$496.92**	**$491.78**	**$503.99**	**$519.61**	**$530.09**	**$564.72**	**$515.58**

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
CHILD CARE

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2008 - 2017	$515.58
Net Population & Employment Growth 2018 - 2027	356,305
Maximum Allowable Funding Envelope	$183,703,883
Less: 10% Legislated Reduction	$18,370,388
Discounted Maximum Allowable Funding Envelope	**$165,333,495**

APPENDIX D.10
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
CHILD CARE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs: BTE[1] %	Ineligible Costs: Replacement & BTE Shares	Ineligible Costs: 10% Reduction	Total Development Related Costs	Development Related Costs: 2018-2027	Development Related Costs: Post 2027
10 CHILD CARE										
10.1 City Facilities										
10.1.1 St. John The Evangelist Catholic School	2018 - 2019	$ 3,390,000	$ -	$ 3,390,000	0%	$ -	$ 339,000	$ 3,051,000	$ 3,051,000	$ -
10.1.2 New Child Care Centre No. 6 - Bridletown Community Centre	2018 - 2021	$ 3,400,000	$ -	$ 3,400,000	0%	$ -	$ 340,000	$ 3,060,000	$ 3,060,000	$ -
10.1.3 New Child Care Centre No. 7 - David and Mary Thomsom	2018 - 2022	$ 3,900,000	$ -	$ 3,900,000	0%	$ -	$ 390,000	$ 3,510,000	$ 3,510,000	$ -
10.1.4 New Child Care Centre No. 8	2020 - 2023	$ 3,900,000	$ -	$ 3,900,000	0%	$ -	$ 390,000	$ 3,510,000	$ 3,510,000	$ -
10.1.5 New Child Care Centres No. 9	2023 - 2025	$ 3,900,000	$ -	$ 3,900,000	0%	$ -	$ 390,000	$ 3,510,000	$ 3,510,000	$ -
10.1.6 Avondale Public School	2018 - 2019	$ 1,433,000	$ -	$ 1,433,000	0%	$ -	$ 143,300	$ 1,289,700	$ 1,289,700	$ -
10.1.7 Block 31 Child Care Centre	2018 - 2019	$ 4,733,000	$ -	$ 4,733,000	0%	$ -	$ 473,300	$ 4,259,700	$ 4,259,700	$ -
10.1.8 Advent Health Care Child Care Centre	2018 - 2019	$ 2,710,000	$ -	$ 2,710,000	0%	$ -	$ 271,000	$ 2,439,000	$ 2,439,000	$ -
10.1.9 Stanley Public School	2018 - 2019	$ 3,900,000	$ -	$ 3,900,000	0%	$ -	$ 390,000	$ 3,510,000	$ 3,510,000	$ -
10.1.10 St. Columba Catholic School	2018 - 2019	$ 1,525,000	$ -	$ 1,525,000	0%	$ -	$ 152,500	$ 1,372,500	$ 1,372,500	$ -
10.1.11 St. Maurice Catholic School	2018 - 2018	$ 1,472,000	$ -	$ 1,472,000	0%	$ -	$ 147,200	$ 1,324,800	$ 1,324,800	$ -
10.1.12 St. Barnabas Catholic School	2018 - 2018	$ 2,600,000	$ -	$ 2,600,000	0%	$ -	$ 260,000	$ 2,340,000	$ 2,340,000	$ -
10.1.13 St. Roch Catholic School	2018 - 2018	$ 1,900,000	$ -	$ 1,900,000	0%	$ -	$ 190,000	$ 1,710,000	$ 1,710,000	$ -
10.1.14 St. Bartholomew Catholic School	2018 - 2018	$ 2,600,000	$ -	$ 2,600,000	0%	$ -	$ 260,000	$ 2,340,000	$ 2,340,000	$ -
10.1.15 St. Stephen Catholic School	2018 - 2018	$ 1,400,000	$ -	$ 1,400,000	0%	$ -	$ 140,000	$ 1,260,000	$ 1,260,000	$ -
10.1.16 North East Scarborough Recreation Centre	2018 - 2022	$ 3,900,000	$ -	$ 3,900,000	0%	$ -	$ 390,000	$ 3,510,000	$ 3,510,000	$ -
10.1.17 TCH Lawrence Avenue Site	2018 - 2018	$ 3,900,000	$ -	$ 3,900,000	0%	$ -	$ 390,000	$ 3,510,000	$ 3,510,000	$ -
10.1.18 TCH Needle Firway	2018 - 2020	$ 3,900,000	$ -	$ 3,900,000	80%	$ 3,120,000	$ 78,000	$ 702,000	$ 702,000	$ -
10.1.19 George Webster Public School	2018 - 2018	$ 2,400,000	$ -	$ 2,400,000	0%	$ -	$ 240,000	$ 2,160,000	$ 2,160,000	$ -
10.1.20 Anishawabe Child Care Centre	2018 - 2020	$ 6,000,000	$ -	$ 6,000,000	0%	$ -	$ 600,000	$ 5,400,000	$ 5,400,000	$ -
10.1.21 New Child Care Centre - East Bayfront	2018 - 2020	$ 2,200,000	$ -	$ 2,200,000	0%	$ -	$ 220,000	$ 1,980,000	$ 1,980,000	$ -
10.1.22 New Child Care Centre - East Bayfront, George Brown College	2018 - 2021	$ 3,620,000	$ -	$ 3,620,000	0%	$ -	$ 362,000	$ 3,258,000	$ 3,258,000	$ -
10.1.23 Villiers Island Child Care (integrated in Community Centre)	2018 - 2025	$ 4,983,300	$ -	$ 4,983,300	0%	$ -	$ 498,330	$ 4,484,970	$ 4,484,970	$ -
10.1.24 Etobicoke Community Centre (Child Care Portion)	2018 - 2020	$ 3,316,794	$ -	$ 3,316,794	42%	$ 1,386,700	$ 193,009	$ 1,737,085	$ 1,737,085	$ -
10.1.25 New Child Care Facility	2026 - 2027	$ 711,900	$ -	$ 711,900	0%	$ -	$ 71,190	$ 640,710	$ 640,710	$ -
Subtotal City Facilities		$ 77,694,994	$ -	$ 77,694,994		$ 4,506,700	$ 7,318,829	$ 65,869,465	$ 65,869,465	$ -
10.2 Equipment										
10.2.1 Customer Service Improvements	2018 - 2018	$ 3,175,000	$ -	$ 3,175,000	80%	$ 2,540,000	$ 63,500	$ 571,500	$ 571,500	$ -
Subtotal City Facilities		$ 3,175,000	$ -	$ 3,175,000		$ 2,540,000	$ 63,500	$ 571,500	$ 571,500	$ -
TOTAL CHILD CARE		**$ 80,869,994**	**$ -**	**$ 80,869,994**		**$ 7,046,700**	**$ 7,382,329**	**$ 66,440,965**	**$ 66,440,965**	**$ -**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$47,169,082
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$186.59**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$19,271,882
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$137.46**

2018 - 2027 Net Funding Envelope	$165,333,495

HEMSON

APPENDIX D.10
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
CHILD CARE
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

CHILD CARE	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	($16,123.1)	($22,510.7)	($23,745.1)	($22,821.7)	($20,568.0)	($17,933.4)	($14,364.8)	($10,508.8)	($5,449.9)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Child Care: Non Inflated	$21,294.2	$10,491.6	$5,462.7	$3,139.1	$2,017.7	$1,851.6	$1,228.6	$1,228.6	$227.4	$227.4	**$47,169.1**
- Child Care: Inflated	$21,294.2	$10,701.4	$5,683.4	$3,331.2	$2,184.1	$2,044.3	$1,383.6	$1,411.3	$266.5	$271.8	**$48,571.9**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$5,602.6	$5,347.9	$5,687.0	$5,522.2	$5,632.7	$5,745.3	$5,860.2	$5,977.5	$5,806.4	$5,922.6	**$57,104.4**
INTEREST											
- Interest on Opening Balance	$0.0	($886.8)	($1,238.1)	($1,306.0)	($1,255.2)	($1,131.2)	($986.3)	($790.1)	($578.0)	($299.7)	**($8,471.4)**
- Interest on In-year Transactions	($431.5)	($147.2)	$0.1	$38.3	$60.4	$64.8	$78.3	$79.9	$96.9	$98.9	**($61.1)**
TOTAL REVENUE	$5,171.1	$4,313.9	$4,449.0	$4,254.6	$4,437.8	$4,678.9	$4,952.2	$5,267.3	$5,325.4	$5,721.7	**$48,571.9**
CLOSING CASH BALANCE	($16,123.1)	($22,510.7)	($23,745.1)	($22,821.7)	($20,568.0)	($17,933.4)	($14,364.8)	($10,508.8)	($5,449.9)	$0.0	

2018 Adjusted Charge Per Capita	**$206.66**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX D.10
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
CHILD CARE
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

CHILD CARE	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.00	($6,739.54)	($9,358.83)	($9,970.73)	($9,592.15)	($8,669.61)	($7,591.09)	($6,130.48)	($4,551.97)	($2,360.66)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Child Care: Non Inflated	$8,700.2	$4,286.5	$2,231.9	$1,282.5	$824.4	$756.5	$502.0	$502.0	$92.9	$92.9	**$19,271.9**
- Child Care: Inflated	$8,700.2	$4,372.3	$2,322.1	$1,361.0	$892.3	$835.3	$565.3	$576.6	$108.9	$111.1	**$19,845.0**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$2,141.0	$2,183.8	$2,227.5	$2,272.1	$2,317.5	$2,363.9	$2,411.1	$2,459.4	$2,508.5	$2,558.7	**$23,443.6**
INTEREST											
- Interest on Opening Balance	$0.0	($370.7)	($514.7)	($548.4)	($527.6)	($476.8)	($417.5)	($337.2)	($250.4)	($129.8)	**($3,573.1)**
- Interest on In-year Transactions	($180.4)	($60.2)	($2.6)	$15.9	$24.9	$26.8	$32.3	$32.9	$42.0	$42.8	**($25.4)**
TOTAL REVENUE	$1,960.6	$1,753.0	$1,710.2	$1,739.6	$1,814.9	$1,913.8	$2,025.9	$2,155.1	$2,300.2	$2,471.7	**$19,845.0**
CLOSING CASH BALANCE	($6,739.5)	($9,358.8)	($9,970.7)	($9,592.2)	($8,669.6)	($7,591.1)	($6,130.5)	($4,552.0)	($2,360.7)	$0.0	

2018 Adjusted Charge Per Employee	**$152.71**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

Appendix D.11

Public Health

HEMSON

Appendix D.11

Public Health
Technical Appendix

This appendix provides a brief outline of historical service levels for Toronto Public Health (TPH), the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff.

The following discusses the individual components included in the Public Health service category. The analysis is set out in the tables which follow. The tables include:

Table 1	Historical Service Levels and Calculation of Ten-Year Average Service Level
Table 2	2018–2027 Development-Related Capital forecast and Calculation of the Discounted Growth-Related Net Capital Costs
Table 3	Cash Flow Analysis

A. Historical Service Levels and Calculation of Ten-Year Average Service Levels and Maximum Allowable Charges

TPH offers an array of services that include dental clinics, sexual health clinics, and other types of clinics (i.e. methadone, breastfeeding clinics). In total, the buildings that are used by TPH amount to 375,300 square feet and are valued at $120.11 million. The replacement cost of $320 per square foot includes the buildings, associated land, and fixtures, furniture and equipment. The inventory of assets also includes one mobile dental clinic valued at $499,600.

Table 1 provides a summary of the level of service and the calculation of the ten-year historical service level. The calculation of the maximum allowable funding envelope is summarized as follows:

Ten-Year Funding Envelope Calculation	
Ten-Year Average Service Level (2008 – 2017)	$29.56
Net Population & Employment Growth (2018 – 2027)	356,305
Maximum Allowable Funding Envelope	$10,532,384
Less: Ten per cent Legislated Reduction	$1,053,328
Discounted Maximum Allowable Funding Envelope	**$9,479,146**

The existing facilities have been examined and consideration has been made with regard to whether or not “excess capacity” exists within the City’s infrastructure that may be available to partially meet the future servicing requirements. It has been determined that no “uncommitted excess capacity” exists within the TPH infrastructure, and as such, no adjustments have been made to the service level calculations.

B. Development-Related Capital Forecast

The identified capital project will result, in whole or in part, in increased capacity to meet the servicing needs of new development. The 2018–2027 development-related capital forecast includes the construction of a new injection site in the year 2019. In total, the gross capital forecast amounts to $800,000.

Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City’s “excess capacity” other than excess capacity which is “committed”. “Excess capacity” is undefined in the DCA, but is considered to relate to the capacity available to meet some or all of the increase in need for service in order to potentially represent a deduction. For Public Health services, the deduction of uncommitted excess capacity from the future increase in the need for service occurs as part of the conceptual planning and feasibility work associated with planning new facilities. It is recognized that no “surplus” of capacity exists within Public Health services.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

No grants, subsidies or other recoveries have been identified to fund any of the development-related projects to be recovered through development charges. As such, no deductions have been made in this regard.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development. Generally speaking, shares have been deducted from the net cost of projects that account for portions of the project that relate to state of good repair or the replacement or reconstruction of existing facilities.

The new injection site clinic will not be replacing any portion of an existing clinic, but will be an addition to the current number of clinics in the City. As such, no deduction has been made to this project to account for a replacement or benefit to existing share.

3. Legislated Ten per cent Reduction

As this service is not identified in Section 5 (5) of the DCA, a ten per cent reduction to the net municipal costs, less the replacement/benefit to existing shares, is made to each project.

In total, $80,000 is identified as the ten per cent reduction share.

4. Post-2027 Benefit

The total development related costs of the Public Health services capital forecast, $720,000, is within the net funding envelope of $9.48 million. As such, the entire development related costs are eligible for recovery in the ten-year planning period of 2018 to 2027 of the new DC by-law.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $720,000 is included in the development charge calculation.

D. Calculation of Residential And Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 71 per cent to residential development, and 29 per cent to the non-residential sector. This sector allocation is based upon future shares population growth in new permits issued (252,800) and employment growth in new space (140,200).

Table 2 displays the 71 per cent allocation to the residential sector, or $511,200, and 29 per cent to the non-residential sector, or $208,800.

Table 2 also displays the calculation of the unadjusted per capita residential charge for Public Health services. The $511,200 in discounted development-related net capital costs are allocated to the 252,800 population forecast from new building permits, yielding a per capita charge of $2.02 before cash flow adjustments.

The non-residential unadjusted charge per square metre is calculated by taking the $208,800 allocated to the non-residential sector and dividing it by the 140,200 employment growth forecast. This yields an unadjusted charge of $1.49 per employee.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee development charges. After cash flow consideration, the residential calculated charge increases to $2.28 per capita. The non-residential charge after cash flow increases to $1.69 per employee.

The following table summarizes the calculation of the Public Health services development charge.

PUBLIC HEALTH SUMMARY						
10-year Hist.	2018 - 2027		Unadjusted		**Adjusted**	
Service Level	Development-Related Capital Program		Development Charge		**Development Charge**	
per pop & emp	Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$29.56	$800,000	$720,000	$2.02	$1.49	**$2.28**	**$1.69**

APPENDIX D.11
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC HEALTH

BUILDINGS	# of Square Feet										UNIT COST
Location	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/sq. ft.)
1026 Finch Avenue - Dental Warehouse	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	$320
21 Panorama Court	-	-	-	-	-	-	-	-	-	1,000	$320
540 Finch Avenue West	-	-	-	-	-	300	300	300	300	300	$320
150 Berry Road, Suite #28	-	-	-	-	-	300	300	300	300	300	$320
51 Lisgar	-	-	-	-	10,053	10,053	10,053	10,053	10,053	10,053	$320
1115 Queen Street West	9,272	9,272	9,272	9,272	9,272	-	-	-	-	-	$320
12 Flemington Road	-	650	650	650	650	650	650	650	650	650	$320
1229 Queen Street West	-	-	-	800	800	800	800	800	800	800	$320
1530 Markham Road	29,793	29,793	29,793	29,793	29,793	29,793	29,793	29,793	29,793	29,793	$320
1541 Jane Street	-	-	-	750	750	750	750	750	750	750	$320
160 Borough Drive	16,735	16,735	16,735	16,735	16,735	16,735	16,735	16,735	16,735	16,735	$320
1651 Keele Street	-	-	900	900	900	900	900	900	900	900	$320
175 Memorial Park Drive	6,390	6,390	6,390	6,390	6,390	6,390	6,390	6,390	6,390	6,390	$320
179 Gerrard Street East	-	-	-	390	390	390	390	390	390	390	$320
185 Fifth Street	400	400	400	400	400	400	400	400	400	400	$320
225 Duncan Mill Road	12,107	16,142	16,142	16,142	16,142	16,142	16,142	16,142	16,142	16,142	$320
2300 Sheppard Avenue West	7,232	7,232	7,232	7,232	7,232	7,232	7,232	7,232	7,232	7,232	$320
2340 Dundas Street West	33,900	33,900	33,900	33,900	33,900	33,900	33,900	33,900	33,900	33,900	$320
235 Danforth Avenue	19,168	19,168	19,168	19,168	19,168	19,168	19,168	19,168	19,168	19,168	$320
2398 Yonge Street	3,180	3,180	3,180	3,180	3,180	3,180	3,180	3,180	3,180	3,180	$320
2660 Eglinton Avenue East	-	-	700	700	700	700	700	700	700	700	$320
27 Tapscott Road	-	-	-	450	450	450	450	450	450	450	$320
277 Victoria Street	110,536	110,536	110,536	110,536	110,536	110,536	110,536	110,536	110,536	110,536	$320
340 College Street	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	$320
399 The West Mall	47,454	47,454	47,454	47,454	47,454	47,454	47,454	47,454	47,454	47,454	$320
40 St. Clair Avenue East	4,812	4,812	4,812	4,812	4,812	4,812	4,812	4,812	4,812	4,812	$320
44 Victoria Street	7,415	7,415	7,415	7,415	7,415	7,415	7,415	7,415	7,415	7,415	$320
5 Fairview Mall Drive	-	-	-	550	550	550	550	550	550	550	$320
5100 Yonge Street	23,848	23,848	23,848	23,848	23,848	23,848	23,848	23,848	23,848	23,848	$320
5110 Yonge Street	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971	1,971	$320
524 Oakwood Avenue	14,139	14,139	14,139	14,139	14,139	-	-	-	-	-	$320
662 Jane Street	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544	$320
666 Eglinton Ave	3,200	-	-	-	-	-	-	-	-	-	$320
791 Queen Street East	1,819	1,819	1,819	1,819	1,819	1,819	1,819	1,819	1,819	1,819	$320
8 Taber Road	300	300	300	300	300	300	300	300	300	300	$320
80 Bond Street	-	-	-	500	500	500	500	500	500	500	$320
850 Coxwell Avenue	13,508	13,508	13,508	13,508	13,508	13,508	13,508	13,508	13,508	13,508	$320
95 Lavina Street	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1,150	$320
Total (sq.ft.)	**380,563**	**382,048**	**383,648**	**387,088**	**397,141**	**374,330**	**374,330**	**374,330**	**374,330**	**375,330**	
Total ($000)	**$121,780.0**	**$122,255.4**	**$122,767.4**	**$123,868.2**	**$127,085.1**	**$119,785.6**	**$119,785.6**	**$119,785.6**	**$119,785.6**	**$120,105.6**	

*Note: Unit Cost includes building, land and equipment

HEMSON

APPENDIX D.11
TABLE 1

CITY OF TORONTO
INVENTORY OF CAPITAL ASSETS
TORONTO PUBLIC HEALTH

OTHER FACILITIES	# of Units										UNIT COST
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	($/unit)
Mobile Dental Clinic	-	-	-	-	1	1	1	1	1	1	$499,635
Total (#)	**-**	**-**	**-**	**-**	**1**	**1**	**1**	**1**	**1**	**1**	
Total ($000)	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$499.6**	**$499.6**	**$499.6**	**$499.6**	**$499.6**	**$499.6**	

APPENDIX D.11
TABLE 1

2018 DEVELOPMENT CHARGES BACKGROUND STUDY
CITY OF TORONTO
CALCULATION OF SERVICE LEVELS
TORONTO PUBLIC HEALTH

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historic Population	2,525,400	2,543,200	2,560,400	2,615,100	2,635,176	2,653,004	2,667,085	2,696,070	2,731,600	2,753,048
Historic Employment	1,406,700	1,418,100	1,429,600	1,441,100	1,470,100	1,499,700	1,529,900	1,560,700	1,592,100	1,608,200
Total Historic Population & Employment	3,932,100	3,961,300	3,990,000	4,056,200	4,105,276	4,152,704	4,196,985	4,256,770	4,323,700	4,361,248

INVENTORY SUMMARY ($000)

Buildings, Land & Equipment	$121,780.0	$122,255.4	$122,767.4	$123,868.2	$127,584.8	$120,285.2	$120,285.2	$120,285.2	$120,285.2	$120,605.2
Total ($000)	**$121,780.0**	**$122,255.4**	**$122,767.4**	**$123,868.2**	**$127,584.8**	**$120,285.2**	**$120,285.2**	**$120,285.2**	**$120,285.2**	**$120,605.2**

SERVICE LEVEL ($/capita & employment)

											Average Service Level
Buildings, Land & Equipment	$30.97	$30.86	$30.77	$30.54	$31.08	$28.97	$28.66	$28.26	$27.82	$27.65	$29.56
Total ($/capita & employment)	**$30.97**	**$30.86**	**$30.77**	**$30.54**	**$31.08**	**$28.97**	**$28.66**	**$28.26**	**$27.82**	**$27.65**	**$29.56**

CITY OF TORONTO
CALCULATION OF MAXIMUM ALLOWABLE
TORONTO PUBLIC HEALTH

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2007 - 2016	$29.56
Net Population & Employment Growth 2017 - 2026	356,305
Maximum Allowable Funding Envelope	$10,532,384
Less: 10% Legislated Reduction	$1,053,238
Maximum Allowable Funding Envelope	**$9,479,146**

APPENDIX D.11
TABLE 2

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PUBLIC HEALTH

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs	
					BTE[1] %	Replacement & BTE Shares	10% Reduction		2018-2027	Post 2027
11 PUBLIC HEALTH										
11.1 Buildings										
11.1.1 Provision for New Injection Site	2019 - 2019	$ 800,000	$ -	$ 800,000	0%	$ -	$ 80,000	$ 720,000	$ 720,000	$ -
Subtotal Buildings		$ 800,000	$ -	$ 800,000		$ -	$ 80,000	$ 720,000	$ 720,000	$ -
TOTAL PUBLIC HEALTH		**$ 800,000**	**$ -**	**$ 800,000**		**$ -**	**$ 80,000**	**$ 720,000**	**$ 720,000**	**$ -**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	71%	$511,157
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$2.02**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	29%	$208,843
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$1.49**

2018 - 2027 Net Funding Envelope	$9,479,146

APPENDIX D.11
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PUBLIC HEALTH
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

PUBLIC HEALTH	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	$63.0	($409.8)	($368.4)	($326.6)	($281.3)	($232.1)	($179.0)	($121.7)	($63.1)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Public Health: Non Inflated	$0.0	$511.2	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$511.2**
- Public Health: Inflated	$0.0	$521.4	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$521.4**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$61.9	$59.1	$62.8	$61.0	$62.2	$63.5	$64.7	$66.0	$64.2	$65.4	**$630.9**
INTEREST											
- Interest on Opening Balance	$0.0	$2.2	($22.5)	($20.3)	($18.0)	($15.5)	($12.8)	($9.8)	($6.7)	($3.5)	**($106.8)**
- Interest on In-year Transactions	$1.1	($12.7)	$1.1	$1.1	$1.1	$1.1	$1.1	$1.2	$1.1	$1.1	**($2.7)**
TOTAL REVENUE	$63.0	$48.6	$41.4	$41.8	$45.4	$49.1	$53.1	$57.3	$58.6	$63.1	**$521.4**
CLOSING CASH BALANCE	$63.0	($409.8)	($368.4)	($326.6)	($281.3)	($232.1)	($179.0)	($121.7)	($63.1)	$0.0	

2018 Adjusted Charge Per Capita	**$2.28**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

APPENDIX D.11
TABLE 3

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PUBLIC HEALTH
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

PUBLIC HEALTH	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	TOTAL
OPENING CASH BALANCE	$0.00	$24.06	($169.19)	($153.46)	($136.37)	($117.82)	($97.74)	($76.02)	($52.56)	($27.26)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Public Health: Non Inflated	$0.0	$208.8	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$208.8**
- Public Health: Inflated	$0.0	$213.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	**$213.0**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$23.6	$24.1	$24.6	$25.1	$25.6	$26.1	$26.6	$27.2	$27.7	$28.3	**$258.9**
INTEREST											
- Interest on Opening Balance	$0.0	$0.8	($9.3)	($8.4)	($7.5)	($6.5)	($5.4)	($4.2)	($2.9)	($1.5)	**($44.8)**
- Interest on In-year Transactions	$0.4	($5.2)	$0.4	$0.4	$0.4	$0.5	$0.5	$0.5	$0.5	$0.5	**($1.1)**
TOTAL REVENUE	$24.1	$19.8	$15.7	$17.1	$18.5	$20.1	$21.7	$23.5	$25.3	$27.3	**$213.0**
CLOSING CASH BALANCE	$24.1	($169.2)	($153.5)	($136.4)	($117.8)	($97.7)	($76.0)	($52.6)	($27.3)	$0.0	

2018 Adjusted Charge Per Employee	**$1.69**

Allocation of Capital Program	
Residential Sector	71.0%
Non-Residential Sector	29.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix D.12

Pedestrian Infrastructure

HEMSON

Appendix D.12

Pedestrian Infrastructure
Technical Appendix

This appendix for Pedestrian Infrastructure provides a brief outline of the 2018–2027 development-related capital forecast, the calculation of the "unadjusted" development charge, and the calculated charge after cash flow considerations. The cost, quantum and timing of the projects identified in the forecast have been provided by City staff and are based upon the proposed and approved capital budgets, and previous DC background studies.

The following discusses the individual components included in the Pedestrian Infrastructure category. The analysis is set out in the tables which follow. The tables include:

Table 1 2018–2027 Development-Related Capital forecast and Calculation of the Discounted Growth-Related Net Capital Costs

Table 2 Cash Flow Analysis

A. Historical Service Levels and Calculation of 10-Year Average Service Levels and Maximum Allowable Charges

The City has previously coordinated the provision of approximately 27 km of PATH links in the downtown core. The subject connection is approximately 230 m in length (a PATH expansion of approximately 1 per cent) and is therefore well within the City's ten-year level of service for such pedestrian connections.

B. Development-Related Capital Forecast

The capital projects will result, in whole or in part, in increased capacity to meet the servicing needs of new development. The 2018–2027 development-related capital forecast solely recovers for the Northwest PATH project. Union Station's revitalization will result in new pedestrian connections, including a new underground Northwest PATH tunnel. Key aspects of the project include

accommodating anticipated growth in population and employment in Toronto's downtown to 2031 and the increase in transit services at Union Station through GO-RER.

The cost of the Northwest PATH has increased since the release of the previous DC Background Study. The total gross cost of the project is $61.12 million.

C. Calculation of Discounted Development-Related Capital Costs

1. Grants, Subsidies and Other Recoveries

The reduction to the total gross cost of the Northwest PATH come from upper-tier grants from both the provincial and federal government.

In total, $365,000 in grants have been identified and applied to the DC capital forecast.

2. Replacement and Benefit to Existing Shares

The replacement and benefit to existing shares have been examined on a project-by-project basis and the nature of each project determined the rationale for the reductions. The identified benefit to exiting shares includes costs that meet the needs of existing development, including past development.

A share of the costs have been removed in recognition that the Northwest PATH will provide some benefit existing population and employment. The share was calculated based on the AM peak hour pedestrian movements in the PATH system from 2018 to 2031. As shown below, the 41 per cent benefit to existing share was calculated based on the relationship of pedestrian movements pre-2018 over the total anticipated pedestrian movements at 2031.

AM Peak Hour Direction Pedestrian Movements		
Planning Period	**Total AM Movements**	**%**
BTE pre-2018	44,000	41%
2018-2027	30,966	29%
post-2027	33,034	31%
Total at 2031	**108,000**	**100%**

Using this method, $24.76 million is identified as the replacement and benefit to existing share.

3. Legislated Ten per cent Reduction

As this service is not identified in Section 5 (5) of the *DCA*, a ten per cent reduction to the net costs, less the replacement/benefit to existing shares, is made to each project.

In total, $3.60 million is identified as the ten per cent reduction share.

4. Post-2027 Benefit

A post-period benefit allocation has been made to recognize that this project is in part, will benefit future population and employment growth, including pedestrian movement in the PATH system, to 2031.

Using shares of population and employment growth, the total DC eligible share (after deductions for benefit to existing and legislated ten per cent discount) is allocated between the 2018-2027 and post-2027 planning periods.

Allocation of In-Period and Post-Period Costs		
Planning Period	**Pop + Emp Growth**	**%**
2018-2027	356,305	48%
2028-2031	380,098	52%
Total at 2031	**736,382**	**100%**

In total, $16.73 million is identified as the post-period benefit share and will be considered for recovery in subsequent DC background studies.

5. 2018-2027 In-Period Eligible Costs

After these adjustments and discounts, a total of $15.68 million is included in the development charge calculation.

D. Calculation of Residential and Non-Residential Discounted Development-Related Capital Costs

1. Residential and Non-Residential Allocation

The discounted development-related costs have been allocated 20 per cent to residential development, and 80 per cent to the non-residential sector. This sector allocation is based upon the residential to non-residential split used in previous DC background studies.

Table 1 displays the 20 per cent allocation to the residential sector, or $3.14 million, and 80 per cent to the non-residential sector, or $12.54 million.

Table 1 also displays the calculation of the unadjusted per capita residential charge. The $3.14 million in discounted development-related net capital costs are allocated to the 252,800 population forecast from new housing units, yielding a per capita charge of $12.40 before cash flow adjustments.

The non-residential unadjusted charge per square metre is calculated by taking the $12.54 million allocated to the non-residential sector and dividing it by the 140,200 employment growth forecast. This yields an unadjusted charge of $89.46 per employee.

E. Cash Flow Analysis

A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are, therefore, accounted for in the calculation as allowed under the DCA. Based on the development forecast, the analysis calculates the development charges rate that is required to finance the discounted development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the discounted development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding

requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 2 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per employee development charges. After cash flow consideration, the residential calculated charge increases to $13.37 per capita. The non-residential charge after cash flow increases to $96.76 per square metre of GFA.

The following table summarizes the calculation of the Pedestrian Infrastructure development charge.

PEDESTRIAN INFRASTRUCTURE SUMMARY					
2018 - 2027		Unadjusted		**Adjusted**	
Development-Related Capital Program		Development Charge		**Development Charge**	
Total	Net DC Recoverable	$/capita	$/emp	**$/capita**	**$/emp**
$61,124,593	$15,678,594	$12.40	$89.46	**$13.37**	**$96.76**

APPENDIX D.12
TABLE 1

CITY OF TORONTO
DEVELOPMENT-RELATED CAPITAL FORECAST
PEDESTRIAN INFRASTRUCTURE

Project Description	Project #	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Cost	Ineligible Costs			Total Development Related Costs	Development Related Costs	
						BTE[1] %	Replacement & BTE Shares	10% Reduction		2018-2027	Post 2027
12 PEDESTRIAN INFRASTRUCTURE											
12.1 PATH											
12.1.1 North West PATH - Studies	FAC908278	2018 - 2018	$ 730,000	$ 365,000	$ 365,000	41%	$ 149,000	$ 21,600	$ 194,400	$ 94,060	$ 100,340
12.1.2 Union Station Revitilzation - North West PATH	UNS907229	2018 - 2018	$ 1,759,593	$ -	$ 1,759,593	41%	$ 717,000	$ 104,259	$ 938,334	$ 454,009	$ 484,325
12.1.3 North West PATH - Design and Construction	FAC908278	2018 - 2023	$ 49,635,000	$ -	$ 49,635,000	41%	$ 20,222,000	$ 2,941,300	$ 26,471,700	$ 12,808,213	$ 13,663,487
12.1.4 York Street PATH		2019 - 2019	$ 9,000,000	$ -	$ 9,000,000	41%	$ 3,667,000	$ 533,300	$ 4,799,700	$ 2,322,313	$ 2,477,387
Subtotal PATH			$ 61,124,593	$ 365,000	$ 60,759,593		$ 24,755,000	$ 3,600,459	$ 32,404,134	$ 15,678,594	$ 16,725,539
TOTAL PEDESTRIAN INFRASTRUCTURE			**$ 61,124,593**	**$ 365,000**	**$ 60,759,593**		**$ 24,755,000**	**$ 3,600,459**	**$ 32,404,134**	**$ 15,678,594**	**$ 16,725,539**

1 BTE shares include costs that meet the needs of existing residents and employees including past developments

Residential Development Charge Calculation		
Residential Share of 2018 - 2027 DC Eligible Costs	20%	$3,135,719
10-Year Growth in Population in New Permits Issued		252,790
Unadjusted Development Charge Per Capita		**$12.40**
Non-Residential Development Charge Calculation		
Non-Residential Share of 2018 - 2027 DC Eligible Costs	80%	$12,542,875
10-Year Growth in Employees in New Space		140,200
Unadjusted Development Charge Per Employee		**$89.46**

APPENDIX D.12
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PEDESTRIAN INFRASTRUCTURE
RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

PEDESTRIAN INFRASTRUCTURE	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.0	($178.8)	($767.2)	($887.6)	($1,034.8)	($1,192.0)	($1,359.8)	($1,048.7)	($712.8)	($369.7)	
2018 - 2027 RESIDENTIAL FUNDING REQUIREMENTS											
- Pedestrian Infrastructure: Non Inflated	$536.6	$891.4	$426.9	$426.9	$426.9	$426.9	$0.0	$0.0	$0.0	$0.0	**$3,135.7**
- Pedestrian Infrastructure: Inflated	$536.6	$909.2	$444.2	$453.1	$462.1	$471.4	$0.0	$0.0	$0.0	$0.0	**$3,276.6**
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Permits Issued	27,110	25,370	26,450	25,180	25,180	25,180	25,180	25,180	23,980	23,980	**252,790**
REVENUE											
- DC Receipts: Inflated	$362.6	$346.1	$368.0	$357.4	$364.5	$371.8	$379.3	$386.8	$375.8	$383.3	**$3,695.6**
INTEREST											
- Interest on Opening Balance	$0.0	($9.8)	($42.2)	($48.8)	($56.9)	($65.6)	($74.8)	($57.7)	($39.2)	($20.3)	**($415.3)**
- Interest on In-year Transactions	($4.8)	($15.5)	($2.1)	($2.6)	($2.7)	($2.7)	$6.6	$6.8	$6.6	$6.7	**($3.7)**
TOTAL REVENUE	$357.8	$320.8	$323.8	$305.9	$304.9	$303.5	$311.1	$335.9	$343.1	$369.7	**$3,276.6**
CLOSING CASH BALANCE	($178.8)	($767.2)	($887.6)	($1,034.8)	($1,192.0)	($1,359.8)	($1,048.7)	($712.8)	($369.7)	($0.0)	

2018 Adjusted Charge Per Capita	**$13.37**

Allocation of Capital Program	
Residential Sector	20.0%
Non-Residential Sector	80.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX D.12
TABLE 2

CITY OF TORONTO
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PEDESTRIAN INFRASTRUCTURE
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in $000)

PEDESTRIAN INFRASTRUCTURE	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**TOTAL**
OPENING CASH BALANCE	$0.00	($811.43)	($3,171.31)	($3,721.23)	($4,308.90)	($4,936.56)	($5,606.54)	($4,360.52)	($3,014.89)	($1,563.53)	
2018 - 2027 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Pedestrian Infrastructure: Non Inflated	$2,146.2	$3,565.6	$1,707.8	$1,707.8	$1,707.8	$1,707.8	$0.0	$0.0	$0.0	$0.0	**$12,542.9**
- Pedestrian Infrastructure: Inflated	$2,146.2	$3,636.9	$1,776.8	$1,812.3	$1,848.5	$1,885.5	$0.0	$0.0	$0.0	$0.0	**$13,106.2**
NEW NON-RESIDENTIAL DEVELOPMENT											
- Employees in New Space	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	14,020	**140,200**
REVENUE											
- DC Receipts: Inflated	$1,356.5	$1,383.6	$1,411.3	$1,439.5	$1,468.3	$1,497.7	$1,527.6	$1,558.2	$1,589.4	$1,621.2	**$14,853.4**
INTEREST											
- Interest on Opening Balance	$0.0	($44.6)	($174.4)	($204.7)	($237.0)	($271.5)	($308.4)	($239.8)	($165.8)	($86.0)	**($1,732.2)**
- Interest on In-year Transactions	($21.7)	($62.0)	($10.0)	($10.3)	($10.5)	($10.7)	$26.7	$27.3	$27.8	$28.4	**($14.9)**
TOTAL REVENUE	$1,334.8	$1,277.0	$1,226.8	$1,224.6	$1,220.9	$1,215.5	$1,246.0	$1,345.6	$1,451.4	$1,563.5	**$13,106.2**
CLOSING CASH BALANCE	($811.4)	($3,171.3)	($3,721.2)	($4,308.9)	($4,936.6)	($5,606.5)	($4,360.5)	($3,014.9)	($1,563.5)	($0.0)	

2018 Adjusted Charge Per Employee	**$96.76**

Allocation of Capital Program	
Residential Sector	20.0%
Non-Residential Sector	80.0%
Rates for 2018	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

HEMSON

Appendix E

Reserve Funds

HEMSON

Appendix E

Reserve Funds
Technical Appendix

There is no explicit requirement under Section 5 of the Development Charges Act to net the outstanding reserve fund balance as part of setting the DC rates; however, Section 35 states the following:

> "The money in a reserve fund established for a service may be spent only for the capital costs determined under paragraphs 2 to 8 of subsection 5(1)."

The City's existing DC reserve fund balances have been considered in the 2018 DC Background Study in a manner similar to the City's past practices.

For engineered services, the December 31, 2016 cash balances, adjusted for 2017 revenue collections, are applied to future capital programs. The engineered services DC reserve fund balances are noted in Table 1.

As related to the general services, which are subject to a per capita historical service level "cap", the City's existing DC reserve funds will be used to create new facilities and servicing capacity to maintain service levels related to prior growth. The City's 2018 DC Background Study quantifies maximum permissible funding envelopes and servicing needs of development over the 2018–2027 planning timeframe. For the purposes of the DC study calculations, the existing reserve funds are assumed to be paying for space, and/or servicing capacity, which is in addition to this requirement and relates to development that occurred prior to the passage of the 2018 DC by-law ("prior growth"), which has paid DCs but has yet to receive new facilities. This includes a share of the monies in the existing City DC reserve funds, including collections from 2017, related to applications that have been approved and permits issued but for which construction has yet to be completed, or, in some cases, started. The population, household, employment and non-residential space that will arise from these applications is part of the 2018–2027 planning horizon, and hence development, that has been used in the Study to establish new proposed DC rates.

APPENDIX E
TABLE 1

CITY OF TORONTO
CITY-WIDE DEVELOPMENT CHARGE RESERVE FUNDS
STATEMENT OF DEVELOPMENT CHARGE RESERVE FUNDS
(in $000)
For the year ended December 31, 2016

Service	Closing Balance (Dec. 31, 2016)	2017 Revenues	Closing Balance (Dec. 31, 2016) after Adjustments for 2017 Revenues
Roads	$48,261	$26,437	$74,698
Sanitary Sewers	$71,499	$16,243	$87,741
Storm Water Management	$16,845	$4,334	$21,179
Water	$89,563	$21,544	$111,106
Total	**$226,167**	**$68,557**	**$294,724**

Appendix F

Transit Services Cost Of Growth Analysis

HEMSON

Appendix F

Transit Services Cost of Growth Analysis

This appendix addresses the capital, operating and asset management plan development charge background study requirements for Transit services and also examines how both the City of Toronto ("City") and the Toronto Transit Commission ("TTC") utilize long-term financial planning and asset management planning to ensure the fiscal sustainability of transit services operations, including the full life-cycle cost of assets. Although all transit assets have a useful life longer than ten-years, the analysis contained in this appendix will focus on the *DCA* legislated ten-year transit planning horizon (the period immediately following the preparation of the DC Background Study) of 2018-2027. Likewise, the analysis will focus on the share of the capital assets included in the calculation of the DC rates, although reference is also made to the needs of the gross-cost of the added assets.

A. Operating and Capital Cost Impacts and Asset Management Plan Legislative Requirements

Section 10 of the *DCA* identifies what must be included in a development charge background study, this appendix deals with two of those requirements for Transit services, namely:

> s.10 (2) The development charge background study shall include,
>
> (c) an examination, for each service to which the development charge by-law would relate, of the long term capital and operating costs for capital infrastructure required for the service;
>
> (c.2) an asset management plan prepared in accordance with subsection (3);
>
> Asset management plan
>
> (3) The asset management plan shall,
>
> (a) deal with all assets whose capital costs are proposed to be funded under the development charge by-law;
>
> (b) demonstrate that all the assets mentioned in clause (a) are financially sustainable over their full life cycle;
>
> (c) contain any other information that is prescribed; and
>
> (d) be prepared in a prescribed manner.

The requirement to produce an Asset Management Plan (AMP) was included as part of the *DCA* amendments that came into effect on January 1, 2016. A key function of the AMP is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life-cycle.

In addition to the requirements set out in section 10 of the *DCA*, the associated regulations, *Ontario Regulation 82/98 (O.Reg. 82/98)*, identifies additional direction on the contents of the AMP for transit services, to be addressed in a development charges background study. However, it is noted that the regulations are silent with respect to the AMP requirements for any other services.

B. Relevant Analysis and Documents

The City and TTC utilize a range of fiscal planning tools and approaches in examining the funding and maintenance of infrastructure. The City of Toronto is currently updating its Long-Term Financial Plan to ensure the City continues to run efficiently, spend public money wisely, and be able to deliver the long-term programs and services that residents need and want.

City Council has adopted a number of critical strategies and plans to address current fiscal challenges and pressures. Council has also implemented strategies to create economic stability, social equity, long-term environmental sustainability and the development of a healthy city. The City uses these strategies to inform decisions about which services to deliver and how to successfully achieve service delivery goals and objectives.

The City's website contains detailed information current practices, policies and ongoing initiatives can be found here:

- https://web.toronto.ca/city-government/budget-finances/city-finance/long-term-financial-plan/

Specific information dealing with City assets can be found here:

- https://web.toronto.ca/city-government/budget-finances/city-finance/long-term-financial-plan/city-assets-fact-sheet/

Likewise, the TTC has extensive policies and practices related to long-range financial planning. The TTC Corporate plan addresses these issues

comprehensively, the most current version of the plan can be found on the TTC's website:

- https://www.ttc.ca/Customer_Service/Corporate_Plan/index.jsp

One of the core strategies of the TTC is to excel at asset management and operational performance. The key object of this core strategy is the "effective, efficient management of assets that delivers reliable services in a state of good repair." Additional information on TTC asset strategy can be found here:

- https://www.ttc.ca/Customer_Service/Corporate_Plan/Strategic_Objectives/Assets/index.jsp

The key objective of the reports is to ensure financial sustainability for the delivery of Transit services. In addition, the City and TTC's annual budget processes implement and manage the year-to-year expenditure needs and revenue requirements of the program.

C. Transit Asset Management Plan (AMP) Requirements

Given the complexity and extent of Transit services, and the related DC capital program, the Transit DC AMP has been completed using five capital program groupings. The groupings reflect different types of assets and generally the way in which the TTC and the City manage transit assets. The five groups are as follows:

1. Track Related Infrastructure (Higher-Order Transit Projects and Other Track Projects)
2. Rolling Stock (Subway Cars, Street Cars, Buses and other fleet)
3. Buildings & Structures
4. Equipment
5. Planning & Design Studies & Service Planning

This section of the appendix addresses the DC Background Study requirements set out in paragraph 1 of s. 8(3) of *O.Reg. 82/98*. The following provides an overview of the relevant documents and analysis that fulfills the AMP and long-term capital and operating cost requirements of the legislation.

Gross Capital Costs Have Been Used for the Purposes of the AMP Analysis

The analysis contained in this appendix includes the total cost of all transit infrastructure including development charge eligible and ineligible costs. However, the share of the development charge eligible works related to the ten-year Transit DC planning, 2018-2027, are the focus.

Transit Assets: Condition Ratings & Useful Lives

Section 8(3) of the *O.Reg. 82/98,* deal with the types of assets used to deliver transit services and the state of existing local infrastructure. This section of the Regulations also address the principles, policies and approaches used by the municipality in asset management planning.

Table 1 below provides the 2016 year end depreciation schedules for TTC assets.

Table 1 - Tangible Capital Assets

$000s			Cost December 31, 2016		
	Beginning	Additions	Disposals	Write-downs	Ending
Subways	2,690,944	77,033	-	-	2,767,977
Buildings & Structures	1,768,407	284,179	-	-	2,052,586
Rolling Stock	2,295,669	280,003	-	-	2,575,672
Buses	1,667,107	124,987	(16,571)	-	1,775,523
Trackwork	1,792,592	74,400	-	-	1,866,992
Other Equipment	858,902	68,199	(465)	-	926,636
Traction Power Distribution	474,649	39,735	-	-	514,384
Land	12,854	-	-	-	12,854
Construction in Progress	3,713,551	175,478	-	(187)	3,888,842
Total	**15,274,675**	**1,124,014**	**(17,036)**	**(187)**	**16,381,466**

A summary of the estimated useful life assumptions for transit capital works considered under this DC Background Study is outlined in Table 2. Although all capital assets considered in this DC Background Study have been identified, not all assets necessitate future replacement or ongoing maintenance activities. Some exceptions include:

- Some projects do not relate to the emplacement of a tangible capital asset– some examples include the acquisition of land or the undertaking of development-related studies. These projects/costs do not necessarily require future replacement or ongoing maintenance. Such projects are identified as “not infrastructure” in the table.

The capital cost estimates prepared for each of the projects identified in this Background Study include grouped costs of various individual elements, which, as a stand-alone item, may have its own useful life (i.e. new buildings include: HVAC, structural elements, roof, etc.). Accordingly, the average useful life assumptions noted below are applicable to all project components.

Table 2 – Summary of Assets Considered and Useful Life Assumptions

Asset Category	**Useful Life**
Track Related Infrastructure	
Subway Projects	50 years
Streetcar/LRT tracks	25 years
Rolling Stock	
Non-Revenue Vehicles	10 years
Buses	18 years
Streetcars & Subway Cars	30 years
Buildings & Structures	40 years
Other Equipment	
Shop Equipment	15 years
Signalization	20 years
Communication/SCADA	22 years
Planning & Design Studies & Service Planning Studies & Non-Assets	0 years
Other Projects – As above	15-40 years

Summary of the Transit Capital Program

Table 3 provides a summary of the future transit projects identified in the capital program. The gross capital costs and 2018-2027 development charge recoverable shares are provided in greater detail in Appendix C (Transit Services Technical Appendix).

Table 3 – Summary of Development-Related Capital Program ($Millions)		
Capital Project Description	**Gross Cost**	**2018-2027 Development Charge Recoverable**
Track Related Infrastructure		
Subway Projects	$7,505.95	$380.31
Streetcars & LRT	$6,640.23	$614.94
Rolling Stock		
Non-Revenue Vehicles	$8.46	$1.91
Buses	$298.98	$298.99
Streetcars, LRT & Subway Cars	$3,553.62	$561.03
Buildings & Structures	$2,174.46	$367.76
Other Equipment	$1,101.93	$248.80
Planning & Design Studies & Service Planning		
Studies & Non-Assets	$134.71	$25.05
Other Projects – As above	$65.83	$14.18
Total	**$21,484.17**	**$2,512.97**

1) Capital costs do not include financing costs

Annual Provision

Table 4 provides a summary of the calculated annual reserve fund contributions based on the identified useful lives of the various assets and projects.

Table 4 – Summary of Calculated Full Life Cycle Annual Contributions ($000s) at 2028		
Capital Project Description	**Gross Cost 2028 Contribution**	**2018-2027 Development Charge Recoverable 2028 Contribution**
Track Related Infrastructure		
Subway Projects	$157.62	$8.27
Streetcars & LRT	$173.20	$14.98
Rolling Stock		
Non-Revenue Vehicles	$0.93	$0.21
Buses	$18.53	$18.53
Streetcars, LRT & Subway Cars	$126.70	$8.35
Buildings & Structures	$55.88	$9.97
Other Equipment	$61.80	$13.95
Planning & Design Studies & Service Planning		
Studies & Non-Assets	$0	$0
Other Projects – As above	$3.63	$0.78
Total	**$598.29**	**$75.04**

As shown in Table 4, the life-cycle costing provisions total $598.29 million/year at 2028 over the Transit development charge recovery period of 2018-2027 based on the total gross capital expenditures. Of this amount, $75.04 million relates to the share of the Transit capital program identified as

benefiting development over the 2018-2027 period. It is noted that the annual contributions are based on assumed theoretical lives and that contributions start the year following the expenditures. It is anticipated that, on average, the actual useful lives of the transit assets will be longer than the estimates. In addition, the earliest point at which contributions will begin would be from the initial year of operating the associated asset, therefore the annual contributions are somewhat overstated. The annual contribution at 2028 in Table 3 is the annual contribution for the entire ten-year period, 2018-2027, as the expenditures in 2027 will not trigger asset management contributions until 2028. In addition, the 2028 calculated contribution is the maximum cumulative annual contribution, of any year for all assets over the longest useful life of any specific asset.

To put Table 3 in context of the TTC capital program, the following figure is an extract from the Proposed 2018-2027 Capital Budget[1], which is subject to Council approval likely to occur in February 2018:

BASE CAPITAL BUDGET REQUIREMENT
Ten Year Capital Needs
By Major Category
($ millions)

	2018	2018-2027	%
Legislated	80	668	7%
SOGR/Safety	1,226	7,613	82%
Service Imprc	61	230	3%
Growth Relat	214	729	8%
Total	1,581	9,240	100%

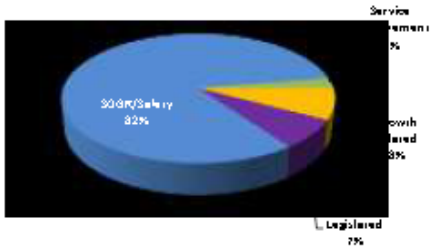


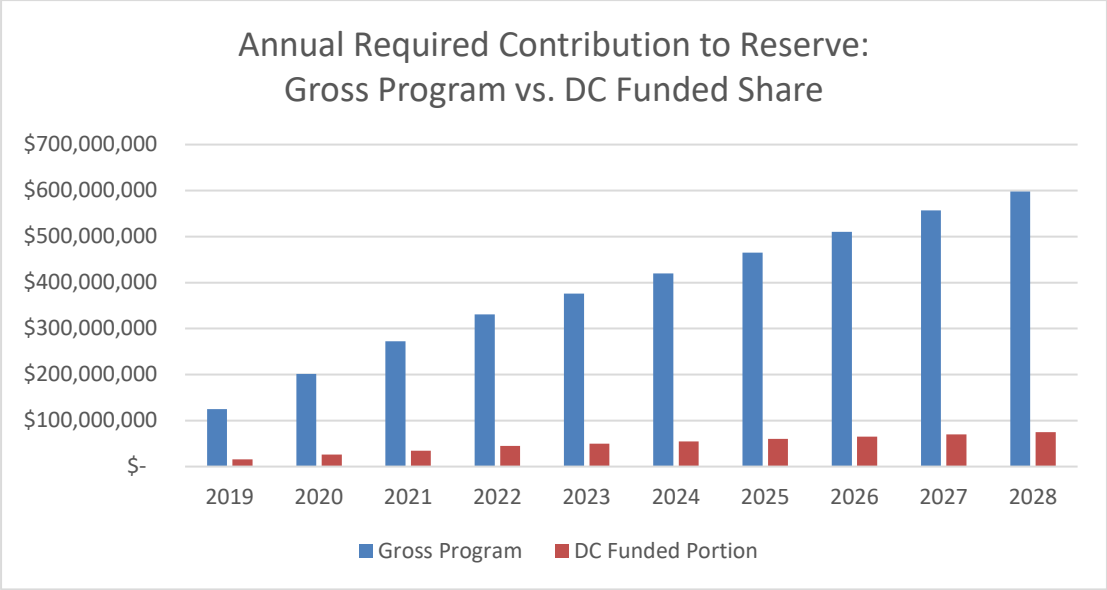
Figure 1: Base Capital Budget Requirement, Source: TTC

The TTC 2018 proposed capital budget identifies over $1.2 billion in State-of-Good Repair (SOGR), or asset management, related expenditures and a proposed ten-year, 2018-2027, average annual SOGR expenditure of $760 million. The TTC 2018-2027 captures all of the rolling stock, buildings and equipment charges included in the DC gross capital project costs, and most of the major infrastructure projects. The TTC's capital budget and long-term financial planning identifies the financial sustainability of the Transit DC

[1] Source: Proposed 2018-2027 TTC Capital Budget, TTC Staff Report, September 26, 2017, https://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Committee_meetings/Budget/2017/September_26/Reports/1_Proposed_2018-2027_TTC_Capital_Budget.pdf

capital projects and the specifics are addressed below. In particular, the 2017, and 2017-2016, approved TTC capital budget identified SOGR expenditures of a similar magnitude.

Figure 2 provides the calculated annual asset management contribution for the period 2018-2028 for both the gross capital expenditures and the share related to the 2018-2027 DC recoverable portion. The year 2028 has been included to calculate the annual contribution for the entire ten-year period, 2018-2027, as the expenditures in 2027 will not trigger asset management contributions until 2028.



D. Transit Asset Management Strategy & Financial Strategy

Paragraphs 3 and 4 of Section 8(3) of *O.Reg. 82/98* outline the asset management plan and financial plan information that is to be included in a DC Background Study if there is to be a development charge for transit services. The following section addresses the information needs following the major asset categories identified above namely:

1. Track Related Projects (higher-order transit projects and other track work)
2. Rolling Stock (Subway Cars, Street Cars, Buses and other fleet)
3. Buildings & Structures
4. Equipment
5. Planning & Design Studies & Service Planning

1. Track Related Projects (Higher-Order Transit Projects & Other Track Related Works)

The following provides a summary of the track related infrastructure projects, as supported by relevant staff reports and documents, that identify the City's commitment to fund capital expenditures and address long-term capital and operating impacts.

Scarborough Subway Extension (SSE)

At the Council meeting of October 8, 9, 10 and 11, 2013 item CC39.5 was adopted to "reconfirm its support for the Scarborough Subway, extending the Bloor-Danforth line along the McCowan Road corridor to Sheppard Avenue East (the 'McCowan Corridor Subway')".

In March 2017, Council approved the extension of Line 2 (Bloor-Danforth Subway) from Kennedy Station to Scarborough Centre via the McCowan alignment, including the station concept, ancillary facilities (emergency exit buildings) and the Triton bus terminal concept. Staff received Council authorization to issue the Notice of Commencement to initiate the Transit Project Assessment Process for the Scarborough Subway Extension project.

The 2015 City of Toronto DC Amendment Study which identified the calculated rates for the Scarborough Subway Extension (SSE), noted that the City had indicated that the operating impacts of the project would be funded through fare box revenues and property taxes.

Recent Council considerations for the project and an updated business case, including a recent capital and operating impact analysis, can be found at the following link:

- http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EX23.1
- http://www.toronto.ca/legdocs/mmis/2017/ex/bgrd/backgroundfile-101548.pdf

Sheppard Subway

This project have been open and operational since 2002. As a result, the funding requirements for the related infrastructure has already been incorporated into the City's current asset management practices. Furthermore, the operating cost of Sheppard Subway are fully integrated into TTC existing operating cost base.

Eglinton East LRT

The Eglinton East LRT is included in Toronto's 2031 Transit Network Plan, which was considered in July 2016. Per City Council direction, further technical and planning work is being completed to refine the project concept for the Eglinton East LRT to the University of Toronto Scarborough Campus, with potential extension to Malvern. This included assessing the interface of the proposed Eglinton East LRT with the Eglinton Crosstown project.

Council's consideration of the project and a report on the preliminary options analysis, including a discussion of the proposed options and their associated capital costs, can be found at the following links:

- http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.EX16.1
- http://www.toronto.ca/legdocs/mmis/2016/ex/bgrd/backgroundfile-94623.pdf

At the July 2016 meeting, Council also authorized staff to initiate negotiations related to cost sharing and intergovernmental funding arrangements associated with the Eglinton East LRT extension and other programs. The current capital program identifies an 80% commitment from other levels of government including federal and provincial funding.

Waterfront Transit "Reset"

In 2015, Council directed staff to initiate a review on various transit improvements required for the City's waterfront area. As stated on the City's website:

- "City Council direct the Deputy City Manager, Cluster B, and the Chief Planner and Executive Director, City Planning in partnership with the Toronto Transit Commission and Waterfront Toronto, to initiate Phase 2 of the Waterfront Transit "Reset" for further development and costing of alignment concepts, detailed analysis of transit operations and ridership, identification of priority segments, as well as the creation of a Business Case and implementation strategy for delivering a coordinated waterfront transit solution."
- https://web.toronto.ca/city-government/planning-development/planning-studies-initiatives/waterfront-transit-reset/

It is anticipated that a report including the Business Case and implementation strategy will be brought forward for Council consideration either late 2017 or early 2018. The current capital program identifies an 80% commitment from other levels of government including federal and provincial funding. It is

anticipated that a determination of the operating and maintenance impacts will be completed at a later date.

SmartTrack

The City of Toronto is currently in the process of implementing the SmartTrack program which includes SmartTrack, GO Regional Express Rail (RER) Integration scenario with six new stations and the Metrolinx LRT program.

Recent Council considerations and decisions regarding the project cost, including initial business cases, an analysis of various options, and next steps can be found at the following links on the City's website:

- http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.EX9.1
- http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.EX16.1
- http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EX29.1

Relief Line South

"The Relief Line South is included as a key priority in Toronto's 2031 transit network plan, required to reduce forecasted demand on Line 1. In May 2017, City Council approved the Pape-Carlaw-Eastern-Queen alignment and directed further work in partnership with TTC and Metrolinx to complete design required to develop a project budget baseline (Class 3 cost estimate).

Council's consideration of the project and a copy of the initial business case, including a discussion of the proposed options within the approved Pape-to-Downtown via Queen/Richmond corridor and capital cost estimates, can be found at the following links:

- http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.EX16.1
- http://www.toronto.ca/legdocs/mmis/2016/ex/bgrd/backgroundfile-94624.pdf

Other Track Related Works

Other track related works include upgrades and modifications to the City's Streetcar network and comprise of a minor component of the City's larger track system. These projects include:

- King/Roncesvalles Modification/Surface Track
- Surface Track and Streetcar Network Upgrades for LRV

Costs related to these infrastructure improvements are already incorporated into TTC's operating and capital budgets, including asset state of good repair provisions, thereby ensuring financial sustainability.

The City and TTC have undertaken, or are undertaking, extensive analysis, including business cases, of the costs, capital funding, and operating of the track-related transit projects identified above and proposed to be funded from development charges. Many of the projects, and associated capital and operating costs, are incorporated into the TTC's operating and capital budget, including the multi-year capital plan. TTC's financial policies, practices and budgeting are designed to ensure the fiscal sustainability, including full life cycle assessment management, of the proposed transit infrastructure investment.

2. Rolling Stock

The rolling stock, or fleet needs, accounts for $3.86 billion, or 18 per cent, of the gross DC capital program and $861.94 million, or 34 per cent, of the 2018-2027 DC recoverable Transit costs. Furthermore the fleet needs are 36 per cent of the calculated 2028 asset management contribution needs. The following table provides a discussion on these asset management plan practices.

2.1 An asset management strategy that,

O.Reg. 82/98 Section	Asset Management Strategy – Rolling Stock
i. sets out planned actions that will enable the assets to provide the proposed level of service in a sustainable way, while managing risk, at the lowest life cycle cost,	TTC has a well established set of fleet management practices that ensure TTC has a reliable public transit service that will meet future ridership forecasts. The practices is based on maintaining the existing fleet in a state of good repair, provide for timely replacement, and allow for additional fleet requirements based on ridership growth between procurements. The fleet management plans provide for full maintenance and replacement, using life-cycle costing, using three groups of vehicles: 1. Subway & LRT Fleet 2. Streetcars 3. Conventional Buses For maintaining fleet, TTC has established a policy for preventive maintenance and vehicle overhauls based on manufacturer recommendations and TTC experience. Rail vehicles are assumed to last 30 years, with major overhauls approximately every five years. Fleet are inspected monthly. TTC identifies a set of items that are covered during an inspection Also, TTC has defined a month-by-month cycle of preventative maintenance activities. (Confirm)
ii. is based on an assessment of potential options to achieve the proposed level of service, which assessment compares, A. life cycle costs, B. all other relevant direct and indirect costs and benefits, and C. the risks associated with the potential options,	

O.Reg. 82/98 Section	Asset Management Strategy – Rolling Stock
	The full life cycle cost are summarized above on Table 3 and Figure 2. The Fleet Plans address all of these issues and can be provided upon request.
iii. contains a summary of, in relation to achieving the proposed level of service, A. non-infrastructure solutions B. maintenance activities, C. renewal and rehabilitation activities, D. replacement activities, E. disposal activities, and F. expansion activities,	The various TTC Fleet Plans, as referenced above, address the requirements of paragraph iii. There are no non-infrastructure solutions for the identified fleet needs. The TTC has comprehensive maintenance programs for all types of fleet and these are provided in the Fleet Plans. These plans address renew, rehabilitation, replacement and disposal activities: For example TTC is required to maintain all subway vehicle fleets in a state of good repair and are based on scheduled maintenance at regular intervals and incorporate work recommended by the manufacturer together with information gathered through fault trend analysis. The T1 program includes the overhaul of major car components at 5-year intervals until their retirement at 30 years. The TTC capital budget and ten-year capital plan identifies the fleet expansion needs. These need are also reflected in the TTC Fleet Plans. The transit DC capital program reflects the fleet expansion needs and activities.
iv. discusses the procurement measures that are intended to achieve the proposed level of service	TTC has an extensive and detailed procurement policy. The policy can be found here: https://www.ttc.ca/TTC_Business/Materials_and_procurement/About_Us/Commission_Policies/Procurement_Policy.jsp
v. includes an overview of the risks associated with the strategy and any actions that will be taken in response to those risks	Addressed through the Fleet Plans, annual Capital Budget and Ten-Year Capital Plan.

3. Buildings & Structures

The buildings and structures accounts for $2.17 billion, or 10 per cent, of the gross DC capital program and $367.76 million, or 15 per cent, of the 2018-2027 DC recoverable Transit costs. The buildings and structures account for $9.97 million, or 13 per cent, of the calculated 2028 annual asset management contribution needs. The full life-cycle cost for the buildings and structures included in the 2018 DC Background Study are summarized above in Table 3 and Figure 2.

The most significant projects in this category are the Leslie Barns ($524 million), McNicoll bus garage ($181 million), and the new subway maintenance and storage facility ($120 million). The facilities, and the other

buildings, are referenced and captured in the TTC Fleet Plans and the proposed 2018-2027 Capital Plan.

The TTC 2018-2027 Capital Plan captures the building and structures projects included in the DC gross capital project costs. The TTC's capital budget and long-term financial planning identifies the financial sustainability of the transit DC capital programs. In particular, City Council approved TTC 2017-2026 capital budget including the majority of projects identified in the DC Background Study.

4. Other Equipment

The "other equipment" asset category accounts for a range of small equipment and furnishing needs and accounts for just $1.10 billion, or 5 per cent, of the gross DC capital program and $248.80 million, or 10 per cent, of the 2018-2027 DC recoverable Transit costs. Other equipment accounts for $13.95 million, or 19 per cent, of the calculated 2028 annual asset management contribution needs. The higher share of the annual replacement needs reflects the shorter life of assets included in the other equipment category. The full life-cycle cost for the buildings and structures included in the 2018 DC Background Study are summarized above in Table 3 and Figure 2.

The TTC 2018-2027 Capital Plan captures the other equipment projects included in the DC gross capital project costs. The TTC's capital budget and long-term financial planning identifies the long-range financial sustainability of the transit DC capital projects. In particular, City Council approved TTC 2017-2026 capital budget including the majority of projects identified in the DC Background Study.

5. Planning & Design Studies & Service Planning

The "Planning & Design Studies & Service Planning" is related to studies and non-asset project costs. The category accounts for $200.54 million, or 2 per cent, of the gross DC capital program and $39.23 million, or 2 per cent, of the 2018-2027 DC recoverable Transit costs. The vast major of these costs are non-asset related and therefore do not have an associated life-cycle financial cost. A small share of the cost, $65.8 million, does provide for asset acquisition with a resulting annual asset contribution need, of $782,000. The full life-cycle cost for this category is included in the 2018 DC Background Study is summarized above on Table 3 and Figure 1. The costs are reflected in the TTC budget capital plan and are deemed financial sustainable.

E. Transit Long-Term Capital and Operating Impacts

This section provides a brief examination of the long-term operating costs for the capital facilities and infrastructure to be included in the Development Charges By-law for Transit services. This examination is a requirement of the *DCA, 1997.*

1. Examination of Net Operating Impacts

Table 5 provides a summary of the long-term capital and operating impacts for Transit services, arising from ridership increases, over the identified benefitting periods from 2011-2017, 2018-2027 and 2028-2041. The analysis assumes that these assets are currently open and operational, although it is likely that these costs will actually occur at a later point in the future. The relationship of operating revenue per AM Peak Period Trip is established based on 2017 ridership on the 2011 network which has been extrapolated from the TTC's annual reports. This approach is deemed reasonable for the purposes of the DC Background Study, and meeting the requirements of the DCA. However, it is recognized that the actual cost impacts, including timing, will be determined through the TTC's annual budgeting process.

Consistent with current practices, the net funding difference is anticipated to be funded from other revenue sources such as property taxes. It is noted that the City also continues to have dialogue with organizations such as Metrolinx regarding revenue agreements of fare sharing and discount assumptions.

Table 5 - Long-Term Operating Impact Analysis

OPERATING REVENUE AND EXPENSE	2011-2017	2018-2027	2028-2041
OPERATING REVENUE STATISTICS			
Operating Revenue – including property rental, etc. ($ Millions)	$1,213.75	$687.47	$1,901.22
AM Peak Period Trips	87,053	49,307	81,640
Operating Revenue per AM Peak Period Trip($)	$13,942.67	$13,942.67	$13,942.67
OPERATING EXPENSE STATISTICS			
Operating Expenses ($ Millions)	$1,737.58	$984.17	$2,721.75
AM Peak Period Trips	87,053	49,307	81,640
Operating Expense per AM Peak Period Trip ($)	$19,960.05	$19,960.05	$19,960.05
NET OPERATING IMPACTS			
Net Operating Impacts ($ Millions)	$523.83	$296.70	$820.53
Net Operating Impacts per AM Peak Period Trip ($)	$6,017.39	$6,017.39	$6,017.39

2. Capital Revenue Sources and Assumptions

Transit infrastructure in the City of Toronto is funded from a number of different sources including property taxes, federal and provincial funding (including gas tax) and development charges. The funding of major projects is addressed individually and the TTC/City capital budget and long-range financial planning process addressing funding of all transit capital projects.

Use of Debt

The City's funding of transit infrastructure includes the utilization long-term debt to finance transit capital needs when deemed efficient and within the financial policies of the City. The City's current practice, for projects such as the Scarborough Subway extension, is based on 30-year sinking fund financing. The associated sinking fund annual payments are to be funding from development charges and property taxes based funding sources. The 2018-2027 development-related share of the sinking fund costs are built in the Transit DC cashflow rate calculations.

F. Summary

In summary, the asset management plan and long-term capital and operating analysis included in this appendix demonstrates that the City can afford to invest and operate transit infrastructure over the ten-year and long-term planning period. Importantly, the City's ongoing asset management and long-term financial planning practices will ensure that the projects included in the 2018 DC Background Study are financially sustainable over their full life cycle.

Appendix G

Cost of Growth Analysis – All Services Excluding Transit

HEMSON

Appendix G
Cost of Growth Analysis All
Services Excluding Transit

Asset Management Plan

The Development Charges Act now requires that municipalities complete an Asset Management Plan before passing a development charges by-law. A key function of the Asset Management Plan, as required by the legislation, is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life-cycle.

Asset Types

A summary of the future municipal-owned assets and estimated useful life assumptions for eligible DC services considered as part of the study are outlined in Table 1 and Table 2. Although all capital assets considered in the study have been identified, not all assets necessitate future replacement or ongoing maintenance activities. The exception and the justification is as follows:

- Some of the works identified may represent one-time expenditures and may be temporary in nature. Therefore, the assets would not be required to be replaced and no ongoing operation and maintenance costs exist. Such assets are identified as “not a long-term asset” in the table.

- Some projects do not relate to the emplacement of a tangible capital asset– some examples include the acquisition of land or the undertaking of development-related studies. These projects/costs do not necessarily require future replacement or ongoing maintenance. Such projects are identified as “not infrastructure” in the table.

It should be noted that the capital cost estimates prepared for each of the projects identified in this section include grouped costs of various individual elements, which, as a stand-alone item, may have its own useful life (ex. New buildings include: HVAC, structural elements, roof, etc.). Accordingly, the average useful life assumptions noted below are applicable to all project components.

Table 1 – Summary of Municipal Assets Considered City-wide General Services (Excluding Transit)	
Service and Amenities	**Estimated Useful Life**
Parks and Recreation • Community Centres, Indoor Recreation facilities, arenas, sportfields, parks, playgrounds, trails, splash pads and other park amenities	Amenities have a 15-50 year useful life
Library • Buildings, collection material and equipment	Amenities have a 7-50 year useful life
Subsidized Housing • New affordable housing and ownership units	Amenities have a 50 year useful life
Shelter • New shelter spaces	Amenities have a 50 year useful life
Police • Buildings and equipment	Amenities have a 7-50 year useful life
Fire • Buildings and vehicles	Amenities have a 12-50 year useful life
Paramedic Services • Buildings, equipment and vehicles	Amenities have a 8-50 year useful life
Development-Related Studies • Finance and planning related studies	Studies do not have a useful life assumption
Civic Improvements • Various infrastructure including plazas, fountains, gardens etc.	Amenities have a 25 year average useful life assumption
Child Care • Buildings and equipment	Amenities have a 7-50 year useful life
Health • Buildings	Amenities have a 50 year useful life
Pedestrian Infrastructure • Construction of NorthWest PATH	Amenities have a 50 year useful life

Table 2 – Summary of Municipal Assets Considered Engineered Services	
Capital Project Description	**Estimated Useful Life**
Roads and Related • Traffic control and signalization, road infrastructure, rail grade separations, buildings and works yards	Amenities have a 25-70 year useful life
Water • Mains, plant, pumping stations and trunk infrastructure	Amenities have a 50-80 year useful life
Sanitary Sewer • Mains, plant, pumping stations and trunk infrastructure	Amenities have a 50-80 year useful life
Storm Water Management • Wet weather flow and flood protection	Amenities have a 50-100 year useful life

No annual provisions have been identified for Development-Related Studies as the development-related studies included in the Development-Related Studies development charge category are not infrastructure and therefore have no long-term financial requirements.

Annual Provision

When assets require rehabilitation or are due for replacement, the source of funds is limited to reserves or contributions from operating. Capital expenditures to carry out the rehabilitation and replacement of aging infrastructure are not growth-related and are therefore not eligible for funding through development charge revenues or other developer contributions.

Based on the information obtained from City staff regarding useful life assumptions and the capital cost of acquiring and/or emplacing each asset, a provision for infrastructure replacement has been calculated for both the general and engineered services, excluding transit related infrastructure. Provisions for infrastructure replacement are initially calculated for each asset based on their useful life and the anticipated cost of replacement. The aggregate of all individual provisions form the required annual capital provision. In calculating the annual provisions, a number of assumptions are made to account for inflation (2.0 per cent) and interest (3.5 per cent).

Consistent with the requirements of the Development Charge Act, assets that are proposed to be funded under the development charges by-law have been included in the analysis. As a result, the total calculated annual provision for development charge related infrastructure has been netted down to consider the replacement of existing infrastructure or benefit-to-existing development. However, for reference, the annual replacement provisions associated with the non-development charge funded costs, including costs related to the ten per cent statutory discount, benefit-to-existing and post-period benefit have also been calculated.

Table 3 and 4 provides the calculated annual asset management contribution for 2018-2028 and 2018-2042 for both the gross capital expenditures and the share related to the 2018-2027 and 2018-2041 DC recoverable portion. The year 2028 and 2042 have been included to calculate the annual contribution for the 2018-2027 and 2018-2041 periods as the expenditures in 2027 and 2041 will not trigger asset management contributions until 2028 and 2042, respectively. As shown in Table 3, by 2028, the City will need to fund an additional $69.77 million per annum in order to properly fund the full life-cycle costs of the new assets related to the general services supported under the development charges by-law. A further $25.26 million will be required for engineered services.

Table 4 provides a separate analysis of the annual provisions required for the engineered services capital program as the program extends to 2041. As shown in Table 4, the annual provision in 2042 amounts to $70.66 million.

Table 4 Calculated Annual Provision by 2028 General Services				
	2018-2027 Capital Program		Calculated AMP Annual Provision by 2028	
Service	DC Recoverable	Non-DC Funded	DC Related	Non-DC Related
Public Health	$ 800,000	$ -	$ 16,000	$ -
Police Services	$ 99,700,000	$ 119,400,000	$ 3,486,000	$ 5,692,000
Fire Services	$ 40,800,000	$ 2,500,000	$ 1,162,000	$ 45,000
Paramedic Services	$ 56,600,000	$ 94,700,000	$ 1,684,000	$ 2,866,000
Library	$ 141,300,000	$ 345,400,000	$ 10,673,000	$ 33,667,000
Parks and Recreation	$ 1,604,700,000	$ 2,631,600,000	$ 36,444,000	$ 99,107,000
Subsidized Housing	$ 527,100,000	$ 228,500,000	$ 11,605,000	$ 5,352,000
Shelter	$ 67,500,000	$ 600,000	$ 1,459,000	$ 1,459,000
Civic Improvements	$ 29,100,000	$ 31,500,000	$ 1,110,000	$ 196,000
Pedestrian Infrastructure	$ 19,300,000	$ 41,600,000	$ 547,000	$ 961,000
Childcare	$ 73,800,000	$ 7,000,000	$ 1,587,000	$ 2,007,000
Studies	$ 51,100,000	$ 23,200,000	$ -	$ -
General Services (Excld. Transit) Sub-total			**$ 69,773,000**	**$ 151,352,000**
Roads & Related	$ 1,145,700,000	$ 1,027,000,000	$ 15,941,841	$ 14,290,190
Water Services	$ 524,000,000	$ 846,400,000	$ 7,291,197	$ 11,777,232
Sanitary Sewer	$ 145,500,000	$ 297,800,000	$ 2,024,560	$ 4,143,738
Storm Water Management	$ -	$ -	$ -	$ -
Engineering Services Total			**$ 25,257,598**	**$ 30,211,159**
Total 2028 Provision			**$ 95,030,598**	**$ 181,563,159**

Table 5 Calculated Annual Provision by 2042 Engineered Services				
	2018-2041 Capital Program		Calculated AMP Annual Provision by 2042	
Service	DC Recoverable	Non-DC Funded	DC Related	Non-DC Related
Roads & Related	$ 1,987,800,000	$ 1,262,200,000	$ 27,659,240	$ 17,562,880
Water Services	$ 956,500,000	$ 1,178,600,000	$ 13,309,218	$ 16,399,628
Sanitary Sewer	$ 1,408,100,000	$ 4,789,800,000	$ 19,593,005	$ 66,647,665
Storm Water Management	$ 725,900,000	$ 899,100,000	$ 10,100,534	$ 12,510,526
Total 2042 Provision			**$ 70,661,998**	**$ 113,120,698**

* Non-DC funding includes projects that are funded by local developers, post-period shares etc.

Financial Sustainability of the Program

Future Revenue Growth

The calculated annual funding provision should be considered within the context of the City's projected growth. Over the next ten years (to 2028) the City is projected to increase by approximately 151,100 households, which

represents a 13 per cent increase over the existing base. In addition, the City will also add nearly 140,200 new employees that will result in approximately 4.83 million square metres of additional non-residential building space.

By 2041, there will be an increase of nearly 313,900 new dwelling units and 9.95 million square metres of non-residential building space. This growth will have the effect of increasing the overall assessment base and additional user fee and charges revenues to offset the capital asset provisions required to replace the infrastructure proposed to be funded under the development charges by-law. The collection of these funds is intended to be allocated to the City's reserves for the future replacement of these assets.

The Program is Deemed Financially Sustainable

The calculated annual provisions identified in Tables 3 and 4 are considered to be financially sustainable as it is expected that the increased capital asset management requirements can be absorbed by the tax and user base over the long-term. Importantly, the City's annual operating budget review will allow staff to continue to monitor and implement mitigating measures should the program become less sustainable.

Long-Term Capital and Operating Impact Analysis

As shown in Table 5, by 2027, the City's net operating costs are estimated to increase by $1,131.26 million for property tax supported services. Significant increases in net operating costs will be experienced as new facilities such as community centres are opened. Operating and maintenance costs will also increase as additions to the City's road network and parkland and playing fields are made. For rate supported services such as Water, Sanitary Sewer and Storm Water Management, the net operating impacts arising from the proposed capital programs will be recovered through user fees.

Table 6 summarizes the components of the development-related capital forecast that will require funding from non-DC sources. In total, $8,042.08 million will need to be financed from non-DC sources over the 2018-2027 and 2018-2041 planning period. In addition, $2,170.71 million in interim DC financing related to post-period shares of projects may be required. Because DC By-laws must be revisited at least every five years, however, it is difficult to determine the quantum of interim financing that may be necessary.

The share of the development-related capital forecast requiring funding from non-DC sources consists of two components. The most significant, at $7,645.16 million is related to replacement of existing City facilities with newer and larger facilities that will benefit the existing community. An additional $396.92 million is identified as the mandatory ten per cent discount for certain City-wide general services. Council is made aware of these factors so that they understand the operating and capital costs that will not be covered by DCs as it adopts the development-related capital forecast set out in the study.

APPENDIX G
TABLE 5

CITY OF TORONTO
ESTIMATED NET OPERATING COST OF THE PROPOSED
DEVELOPMENT-RELATED CAPITAL PROGRAM
(in constant 2018 dollars)

General Services (Property Tax Supported)

Category	Description of Operating Costs	Service	Cost ($000's)	Unit Measurement	Source
Childcare	10-Year program provides for 55,858 licenced child care spaces, 254,264 child care fee subsidy spaces, over 900 centres with wage subsidy programs and 21 agences for children with special needs, 45 family support programs, 51 After School and Recreational Programs in partnership with Parks Forestry & Recreation, Funding for 2 cc centres, summer day programs, and health & safety renos.	2017 Gross Operating Budget	$480,216	Total Gros Op Budget	Childcare 2017 Operating Budget, p. 132
		2017 Net Operating Budget	$79,523	Total Net Op Budget	Childcare 2017 Operating Budget, p. 136
			$2,462,875	Total Asset Value in 2017	2018 DC Background Study - Childcare Inventory
			$0.03	Net Op Budget/$ of Asset Value	
			$80,870	Added Capital 2018-2027	2018 DC Background Study - Childcare Capital Program
			$2,611	Additional Net Op Budget at 2027	
Paramedic Services	10-Year program provides for 24-hour emergency medical response, ambulances and vehicles, ambulance stations, paramedics, emergency medical dispatchers, power stretchers, and others.	2017 Gross Operating Budget	$210,484	Total Gross Op Budget	Paramedic Services 2017 Operating Budget, p. 132
		2017 Net Operating Budget	$78,189	Total Net Op Budget	Paramedic Services 2017 Operating Budget, p. 136
			$669,599	Total Asset Value	2018 DC Background Study - Paramedic Inventory
			$0.12	Net Op Budget/$ of Asset Value	
			$151,260	Added Capital 2018-2027	2018 DC Background Study - Paramedic Capital Program
			$17,663	Additional Net Op Budget at 2027	
Fire	10 Year program provides foremergency response, fire stations, heavy and light emergency support and training vehicles, s, firefighers, management and admin staff, and others.	2017 Gross Operating Budget	$469,669	Total Gross Op Budget	Fire 2017 Operating Budget, p. 132
		2017 Net Operating Budget	$452,568	Total Net Op Budget	Fire 2017 Operating Budget, p. 136
			$1,559,977	Total Asset Value	2018 DC Background Study - Fire Inventory
			$0.29	Net Op Budget/$ of Asset Value	
			$43,264	Added Capital 2018-2027	2018 DC Background Study - Fire Capital Program
			$12,551	Additional Net Op Budget at 2027	
Library	10 Year program provides for the maintenance of library branches, access to over 11 million items, and repsonses reference requests.	2017 Gross Operating Budget	$198,371	Total Gross Op Budget	Library 2017 Operating Budget, p. 132
		2017 Net Operating Budget	$178,762	Total Net Op Budget	Library 2017 Operating Budget, p. 136
			$2,240,521	Total Asset Value	2018 DC Background Study - Library Inventory
			$0.08	Net Op Budget/$ of Asset Value	
			$486,702	Added Capital 2018-2027	2018 DC Background Study - Library Capital Program
			$38,832	Additional Net Op Budget at 2027	
Parks and Recreation	10 Year program provides for the maintenance of over 1,600 named parks, 4,300 ha of maintained park land, 4+ million trees, planting approximately 75,000 trees, providing more than 66,000 rec programs for 8.55 million participants, developing reaction and care services through the ARC Program	2017 Gross Operating Budget	$452,327	Total Gross Op Budget	Parks, Forest & Rec 2017 Operating Budget, p. 132
		2017 Net Operating Budget	$316,662	Total Net Op Budget	Parks, Forest & Rec 2017 Operating Budget, p. 136
			$8,106,012	Total Asset Value	2018 DC Background Study - Parks & Rec Inventory
			$0.04	Net Op Budget/$ of Asset Value	
			$3,638,055	Added Capital 2018-2027	2018 DC Background Study - Parks & Rec Capital Program
			$142,121	Additional Net Op Budget at 2027	
Roads	10 Year program provides for the consolidation of the Front Yard Parking function, implementing contracting out of roadway sweeping and redevelopment, updatingthe Program's Snow Disposal Strategy, installing additional Changeable Message Signs on the Gardiner Expressway, completing the Downtown Toronto Transportation Study, continuing roll-out of $1Billion/25,000-unit coordinated street furniture program, continue implementation of the Toronto Walking Strategy, and Implementing the Graffiti Management Plan	2017 Gross Operating Budget	$396,181	Total Gross Op Budget	Transportation 2017 Operating Budget, p. 132
		2017 Net Operating Budget	$215,145	Total Net Op Budget	Transportation 2017 Operating Budget, p. 136
			$15,985,013	Total Asset Value	2018 DC Background Study - Roads Inventory
			$0.01	Net Op Budget/$ of Asset Value	
			$2,172,751	Added Capital 2018-2027	2018 DC Background Study - Roads Capital Program
			$29,243	Additional Net Op Budget at 2027	

APPENDIX G
TABLE 5

CITY OF TORONTO
ESTIMATED NET OPERATING COST OF THE PROPOSED
DEVELOPMENT-RELATED CAPITAL PROGRAM
(in constant 2018 dollars)

General Services (Property Tax Supported)

Category	Description of Operating Costs	Service	Cost ($000's)	Unit Measurement	Source
Subsidized Housing	10 Year plan provides for the creation of new affordable rental homes in 4 developments, funding to assist residents in purchasing new homes, and administering the disbursment of funds for modification/renovation of apartments and private low-income homes.	2017 Gross Operating Budget	$3,474	Total Gross Op Budget	Affordable Housing 2017 Operating Budget, p. 132
		2017 Net Operating Budget	$1,170	Total Net Op Budget	Affordable Housing 2017 Operating Budget, p. 136
			$5,746,935	Total Asset Value	2018 DC Background Study - Subsidized Housing Inventory
			$0.0002	Net Op Budget/$ of Asset Value	
			$755,557	Added Capital 2018-2027	2018 DC Background Study - Subsidized Housing Cap Prog
			$154	Additional Net Op Budget at 2027	
Police	10 Year program provides for officers, cars, motorcycles, boats, horses, and other transportation equipment pieces.	2017 Gross Operating Budget	$1,127,817	Total Gross Op Budget	2017 Police Operating Budget, p. 132
		2017 Net Operating Budget	$1,004,465	Total Net Op Budget	2017 Police Operating Budget, p. 2136
			$2,511,027	Total Asset Value	2018 DC Background Study - Police Inventory
			$0.40	Net Op Budget/$ of Asset Value	
			$2,219,131	Added Capital 2018-2027	2018 DC Background Study - Police Capital Program
			$887,700	Additional Net Op Budget at 2027	
Public Health	10 Year program provides for repsoinding to reports of suspected communicable disease cases, inspecting critical and semi-critical personal services settings, providing infection prevention and control services, providing clinic visits at sexual health clinics, providing support for callers through the AIDS and Sexual Health Info Line, providing vaccine clinics for children without access to OHIP, inspecting food premises and offering training and certification for food handlers, training health professionals from agencies, reaching youth in schools with Chronic Disease/Injury Prevention Initiatives, reaching schools with the Playground Activity Leaders in Schools program, providing counselling for prenatal women at risk for poor birth outcomes, providing mothers with breastfeeding education, conducting home visits, and providing speech and language therapy to preschool children.	2017 Gross Operating Budget	$242,017	Total Gross Op Budget	2017 Public Health Operating Budget, p.132
		2017 Net Operating Budget	$58,473	Total Net Op Budget	2017 Public Health Operating Budget, p.136
			$120,605	Total Asset Value	2018 DC Background Study - Public Health Inventory
			$0.48	Net Op Budget/$ of Asset Value	
			$800	Added Capital 2018-2027	2018 DC Background Study - Public Health Capital Program
			$388	Additional Net Op Budget at 2027	

Note: Transit Services are dealt with seperately in Appendix F

Toronto Water (Utility Rate Funded)

Toronto Water	The City of Toronto Water and Wastewater Program (the "Program") is currently fully funded on a 'pay-as-you-go' basis through a combined water and wastewater rate without any reliance on property taxes or borrowing/debenture financing. Toronto Water's water and wastewater rate model, which is updated annually, provide a ten-year forecast of rate increases that ensure the delivery of water and wastewater services, including operating costs, capital costs and state of good repair costs, are fully funded.	2017 Gross Operating & Capital from Current	$1,231,930	Total Gross Op and Capital from Current Budget	Appendix A of 2017 Water and Wastewater Consumption Rates and Service Fees Staff Report https://www.toronto.ca/legdocs/mmis/2016/ex/bgrd/backgroundfile-98484.pdf
		2017 Net Rate Funding	$1,146,250	Total Net amount required rate funding	
		2027 Gross Operating & Capital from Current	$1,624,238	Total Gross Op and Capital from Current Budget	
		20277 Net Rate Funding	$1,514,028	Total Net amount required rate funding	
		2018-2027 Change in Gross Budget	$392,308	Gross Increase in Budget (Growth and Non-Growth Related	
		2018-2027 Change in Net Rate Funding	**$367,778**	Net Increase in Rate funding (Growth and Non-Growth Related	

TABLE 6

CITY OF TORONTO
SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM
COST OF GROWTH ANALYSIS - ALL SERVICES EXCLUDING TRANSIT
(in $000s)

Service	Development-Related Capital Program 2018-2027						
	Net Project Cost	Replacement & BTE Shares	Required Service Discount	Prior Growth	Available DC Reserves	Post-Period Benefit	Total DC Eligible Costs for Recovery
1 Roads and Related	$1,796,436.5	$625,727.2	$0.0	$7,506.7	$74,697.8	$25,000.0	$1,063,504.9
2 Water	$1,368,711.2	$844,748.8	$0.0	$0.0	$0.0	$0.0	$523,962.4
3 Sanitary Sewer	$418,787.7	$273,262.6	$0.0	$15,520.0	$0.0	$0.0	$130,005.1
4 Storm Water Management	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
5 Parks and Recreation	$3,154,874.3	$232,470.4	$292,240.4	$5,868.0	$0.0	$1,944,870.0	$679,425.5
6 Library	$483,873.0	$342,612.8	$14,126.0	$0.0	$0.0	$0.0	$127,134.2
7 Shelter	$68,130.2	$600.0	$6,753.0	$0.0	$0.0	$0.0	$60,777.1
8 Subsidized housing	$755,557.0	$228,506.0	$52,705.1	$0.0	$0.0	$0.0	$474,345.9
9 Police	$219,131.0	$119,416.0	$0.0	$0.0	$0.0	$0.0	$99,715.0
10 Fire	$43,264.4	$2,500.0	$0.0	$0.0	$0.0	$0.0	$40,764.4
11 Paramedic Services	$95,010.0	$1,750.0	$9,326.0	$0.0	$0.0	$36,669.7	$47,264.3
12 Development-related studies	$52,371.2	$1,415.0	$5,095.6	$0.0	$0.0	$0.0	$45,860.5
13 Civic improvements	$60,533.1	$4,391.0	$5,614.2	$0.0	$0.0	$27,090.9	$23,437.0
14 Child Care	$80,870.0	$7,046.7	$7,382.3	$0.0	$0.0	$0.0	$66,441.0
15 Public Health	$800.0	$0.0	$80.0	$0.0	$0.0	$0.0	$720.0
16 Pedestrian Infrastructure	$60,759.6	$24,755.0	$3,600.5	$0.0	$0.0	$16,725.5	$15,678.6
TOTAL	**$8,659,109.1**	**$2,709,201.4**	**$396,923.1**	**$28,894.7**	**$74,697.8**	**$2,050,356.2**	**$3,399,035.9**

Service	Development-Related Capital Program 2018-2041						
	Net Project Cost	Replacement & BTE Shares	Required Service Discount	Prior Growth	Available DC Reserves	Post-Period Benefit	Total DC Eligible Costs for Recovery
1 Roads and Related	$1,077,274.6	$5,896.2	$0.0	$0.0	$0.0	$84,115.7	$987,262.7
2 Water	$658,231.6	$222,855.5	$0.0	$0.0	$111,106.5	$2,857.1	$321,412.6
3 Sanitary Sewer	$5,725,088.2	$4,459,649.6	$0.0	$0.0	$87,741.1	$2,857.1	$1,174,840.4
4 Storm Water Management	$1,003,972.6	$247,554.1	$0.0	$7,200.0	$21,178.9	$30,524.0	$697,515.6
TOTAL	**$8,464,567.0**	**$4,935,955.3**	**$0.0**	**$7,200.0**	**$220,026.6**	**$120,353.9**	**$3,181,031.2**

TOTAL 2018-2027 and 2018-2041	**$17,123,676.1**	**$7,645,156.7**	**$396,923.1**	**$36,094.7**	**$294,724.4**	**$2,170,710.1**	**$6,580,067.1**

Appendix H

Draft DC By-law

(Available Under Separate Cover)

HEMSON