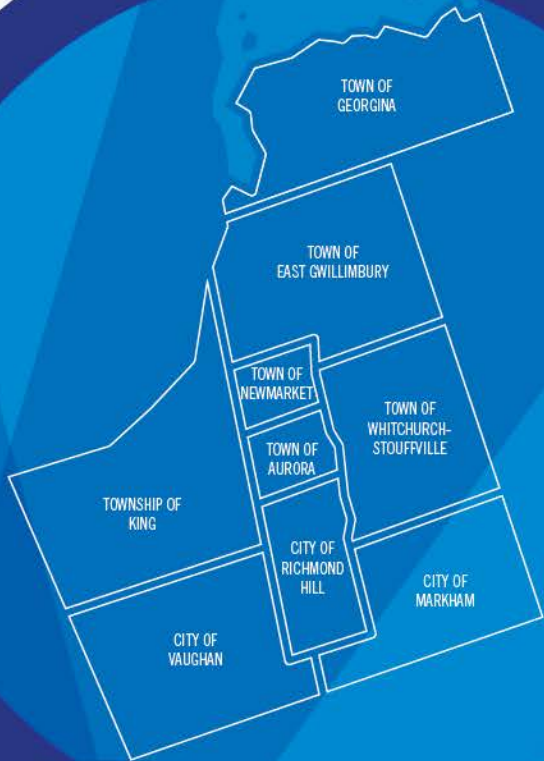


THE REGIONAL MUNICIPALITY OF YORK 2022 DEVELOPMENT CHARGES BACKGROUND STUDY



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LIST OF ACRONYMS AND ABBREVIATIONS

AMP	Asset Management Plan
Bill 13	<u>Supporting People and Businesses Act, 2021</u>
Bill 108	<u>More Homes, More Choice Act, 2019</u>
Bill 197	<u>COVID-19 Economic Recovery Act, 2020</u>
Bill 213	<u>Better for People, Smarter for Business Act, 2020</u>
BTE	Benefit to existing
CANSIM	Canadian Socio-Economic Information Management System
DC	Development charges
the Act	<u>Development Charges Act, 1997</u> , as amended
EA	Environmental Assessment
FIR	Financial Information Return
FSW	Floor Space per Worker
GFA	Gross floor area
GMS	Growth Management Strategy
GTA	Greater Toronto Area
ICI	Industrial/ Commercial/ Institutional
LPAT	Local Planning Appeal Tribunal
MCR	Municipal Comprehensive Review
MTO	Ministry of Transportation
OLT	Ontario Land Tribunal
OMB	Ontario Municipal Board
OPA	Official Plan Amendment
O. Reg.	Ontario Regulation
O. Reg. 82/98	<u>General Regulation</u> under <i>Development Charges Act, 1997</i>
O. Reg. 192/07	<u>Subway Extensions</u> under <i>Development Charges Act, 1997</i>

POA	Provincial Offences Act
PPB	Post-Period Benefit
PPU	Persons per unit
ROP	Regional Official Plan
SDU	Single detached unit
SFD	Single-family Dwelling
SWM	Stormwater management
sq. ft.	square foot
sq. m.	square metre
TMP	Transportation Master Plan
TYSSE	Toronto-York Spadina Subway Extension
WWTF	Wastewater treatment facilities
YNSE	Yonge North Subway Extension
YRP	York Regional Police
YRRTC	York Region Rapid Transit Corporation

EXECUTIVE SUMMARY

I. Purpose of the Background Study

The Act requires a municipality to update its DC bylaw every five years if not sooner. York Region's current Region-wide bylaw [2017-35](#) (as amended by bylaw [2018-42](#)) expires on June 16, 2022. A new bylaw is required to continue to levy development charges. This background study provides the justification for the proposed rates in the bylaw and is prepared pursuant to Section 10 of the Act and in accordance with the prescribed methodology.

The Act provides the statutory basis for the recovery of growth-related capital expenditures from new development. A high-level overview of the methodology is as follows:

- a) Identify amount, type and location of growth
- b) Identify servicing requirements to accommodate growth
- c) Identify capital costs required to meet servicing needs
- d) Deduct:
 - Amounts in excess of the 10-year average historical service calculation
 - Grants, subsidies and other contributions
 - Benefit to existing (BTE) development
 - Post-period benefits (PPB)
- e) Net costs are then allocated between residential and non-residential development, and within the various non-residential rate categories
- f) Using the net costs derived above, a cash flow calculation is used to determine the residential per capita rate and the non-residential rates on a per square feet basis. Where applicable, the rate calculation commences with the inclusion of reserve fund balances for the service, as at the end of 2021. Existing and projected debt payments are also tabulated.

The calculated development charges are based on expenditures eligible for recovery under the Act, included in York Region's capital plan and master plans. Changes to the Act approved through Bills 108, 197, 213, and 13 have been incorporated in the 2022 Bylaw.

This Background Study contains the following chapters:

Chapter 1: Introduction

Chapter 2: Anticipated Development in York Region

Chapter 3: Water: Capital Forecasts and DC-recoverable Costs

Chapter 4: Wastewater: Capital Forecasts and DC-recoverable Costs

Chapter 5: Roads: Capital Forecasts and DC-recoverable Costs

- Chapter 6: Transit: Capital Forecasts and DC-recoverable Costs
- Chapter 7: Toronto-York Spadina Subway Extension: Capital Forecasts and DC-recoverable Costs
- Chapter 8: Yonge North Subway Extension: Capital Forecasts and DC-recoverable Costs
- Chapter 9: Other General Services: Capital Forecasts and DC-recoverable Costs
- Chapter 10: Development Charges Cash Flow Calculations
- Chapter 11: Current Development Charges Bylaw and Policies
- Chapter 12: Development Charges Bylaw and Policies: Areas of Review
- Chapter 13: Asset Management Plan

II. Growth Forecast

The growth forecast used for calculating Region-wide development charges is summarized in Table ES-1 below.

**TABLE ES-1
GROWTH IN POPULATION, HOUSING AND NON-RESIDENTIAL SPACE**

	Gross Population Growth	Housing Growth	Total Employment Growth	Non-Residential Space Growth (sq. ft.)
2022 to 2031	222,074	77,109	102,150	47,329,840
2022 to 2041*	476,277	168,279	210,600	96,115,715

*2041 Mid-year

III. Growth-related Capital Program

This background study includes \$16.2 billion in gross growth-related project capital cost. Of this amount, \$7.9 billion has been determined to be DC-recoverable over the 2022-2041 period. In addition, the 2022 Bylaw will help recover \$2 billion in outstanding debt previously issued by the Region to finance vital infrastructure to support growth.

The difference between the gross and DC-recoverable amounts comprises the following deductions, pursuant to the Act (numbers may not add due to rounding):

\$16.2 billion	Gross development-related capital cost
- \$2.9 billion	Capital Grants, Subsidies and Other Contributions
- \$3.5 billion	BTE Development
<hr/>	
\$9.8 billion	Project costs eligible for DC recovery
- \$1.9 billion	Level of Service cap and Post Period Benefit deduction
<hr/>	
\$7.9 billion	DC eligible costs recoverable through the 2022 DC Bylaw
+ \$2.0 billion	Outstanding debt to be recovered from development charges
<hr/>	
\$9.9 billion	Total DC-recoverable costs under 2022 Bylaw (before financing)

These calculations have been made in accordance with the principle that “Growth Pays for Growth” to the extent that it is permitted under the Act. The limitations to cost recovery include:

- A service level cap that restricts the future level of service from exceeding the 10-year historical service level, and
- Attribution of a share of the costs benefitting existing population and employment base.

“Capital Grants, Subsidies and Other Contributions” represents a funding source that does not involve local taxes or user rates. “Post Period Benefit” deduction represents the growth-related costs to be funded by means of future development charges, to be collected via subsequent bylaws, for the portion of the costs that pertains to the period beyond the planning horizon of 2041. The service specific calculations are summarized in Table ES-4.

IV. Proposed Development Charges

Table ES-2 presents the proposed charges for residential developments, including single and semi-detached dwellings, multiple unit dwellings, and apartments (large and small); and non-residential developments, including retail, industrial/office/institutional (IOI), and hotel.

More details on how the proposed rates compare to the current development charges rate by service could be found in tables ES-5 and ES-6 of this chapter.

TABLE ES-2
PROPOSED DEVELOPMENT CHARGES RATES*

	Current rate*	Proposed rate	% Increase/ (Decrease)
Residential Rate (per unit)			
Single and Semi-Detached Dwellings	\$65,608	77,758	19%
Multiple Unit Dwellings	\$52,814	64,697	22%
Large Apartments > = 700 sq. ft.	\$38,382	50,206	31%
Small Apartments < 700 sq. ft.	\$28,042	32,654	16%
Non-Residential Rate (per sq. ft.)			
Retail	\$58.50	60.61	4%
Industrial/Office/Institutional	\$24.31	24.41	0%
Hotel	\$11.44	10.91	(5%)

*Excludes GO Transit, Local and Education DCs

Regional Council, having received the draft background study and bylaw, and having regard for the input at the public meeting and any other consultation sessions, shall decide upon the magnitude of the development charges it wishes to establish. Tax levy, user rate or other funding (e.g., grants) will be required to fund and finance any portion of growth-related costs not funded by development charges.

V. Bylaw Modifications

The following modifications have been included in the draft 2022 DC Bylaw:

- Stacked townhouses will be treated as apartments
- Any residential dwellings less than 700 sq. ft. (e.g., ‘Tiny Homes’) will be charged the small apartment rate
- Changes to the Act, through Bills 108 and 197 providing development with the ability to freeze development charges at site plan and/or zoning bylaw amendment application (section 26.2 of the Act) and the phasing of development charges for eligible development (under section 26.1 of the Act)
- Recent residential and non-residential statutory exemptions, including:
 - Exemptions for additional dwellings in, or ancillary to, existing residential buildings, but also for additional dwellings in, or ancillary to, new residential buildings
 - Exemptions for conversion of common areas in rental buildings into residential units
 - Exemptions for universities receiving funding from the government for the purposes of post-secondary education

- Adding one service and renaming three services:
 - Adding Yonge North Subway Extension
 - Renaming:
 - “Seniors Services – Capital Component” to “Long-term Care/Seniors Services”
 - “Social Housing” to “Housing Services”
 - “Paramedic Services” to “Ambulance Services”

VI. Consultation Process

Beginning in March 2021, staff held meetings with representatives of the Building Industry and Land Development Association - York Chapter (BILD), the BILD working group (on 16 occasions) and the local municipalities (weekly).

Since the public meeting on March 24, 2022, staff engaged with deputants and other interested stakeholders through six weekly meetings as well as through individual communications.

Topics discussed, as part of the consultation process, included: planning horizon and growth forecast, development charges methodologies and assumptions, levels of service, statutory deductions, consideration of area-specific rates, treatment of stacked townhouses, and development charges policies.

VII. Council Approval Sought

At this stage in the process, the Background Study and draft Development Charge Bylaw are being tabled for information purposes, as part of the consultation process and in accordance with the Act.

When that process is complete, and final development charge recommendations are made to Council on May 26, 2022, approval will be sought for the 2022 Development Charges Bylaw and the Background Study, including:

- The development forecast
- The development-related capital program
- The development charges rate calculation
- Changes to the bylaw
- An Asset Management Plan that demonstrates that all assets whose capital costs are being funded through development charges are financially sustainable over their full life cycle

All of the above may be subject to any amendments or addenda that could be produced prior to the passing of the Bylaw.

VIII. GO Transit Development Charges

Development charges for GO Transit only apply to residential development and are levied under a separate bylaw (No. [DC-0004-2001-097](#)). As such, the rates charged are not affected by the 2022 Background Study or Bylaw. For information purposes, GO Transit rates as of March 3, 2022 are provided in Table ES-3 below:

TABLE ES-3
GO TRANSIT DEVELOPMENT CHARGES
(AS OF MARCH 3, 2022)

Type of residential development	GO Transit DC Rate (\$)
Single and semi-detached dwellings	\$396
Multiple unit dwellings	\$311
Large Apartments >=700 sq. ft.	\$229
Small Apartments < 700 sq. ft.	\$145

TABLE ES-4

DC-RECOVERABLE COSTS BY SERVICE (\$M)

Service	Gross Project Cost	Grants, Subsidies and Other Recoveries	Municipal Cost	Benefit to Existing	Outstanding DC Debt	Potential DC Recoverable Project Costs			Total DC-Recoverable Costs under 2022 Bylaw (before Financing)
						Total DC-Eligible Cost	In-period Growth Costs	Post Period Benefit/Level of Service Deduction	
Hard Services									
Water	777	48	729	40	540	688	486	203	1,026
Wastewater	2,675	234	2,441	0	753	2,441	1,787	654	2,540
Roads	8,477	1,767	6,710	2,281	430	4,429	3,671	759	4,100
Subtotal Hard Services	11,930	2,049	9,880	2,322	1,723	7,559	5,943	1,616	7,666
General Services									
Transit	1,297	595	702	141	1	560	554	6	555
Toronto-York Spadina Subway Extension (TYSSE)	7	2	5	1	222	4	4	0	226
Yonge North Subway Extension (YNSE)	1,120	0	1,120	280	0	840	840	0	840
Police Services	370	0	370	207	62	164	106	57	168
Waste Diversion	131	0	131	81	0	50	42	8	42
Public Works	279	0	279	13	1	265	105	160	106
Housing Services	909	261	647	466	7	181	181	0	189
Growth Studies	32	0	32	0	0	32	32	0	32
Court Services	0	0	0	0	4	0	0	0	4
Ambulance Services	53	0	53	10	12	43	32	11	44
Public Health	31	0	31	0	0	31	31	0	31
Long-Term Care/Seniors Services	3	2	1	1	0	0	0	0	0
Subtotal General Services	4,232	860	3,372	1,201	309	2,171	1,928	242	2,237
Total	16,162	2,910	13,252	3,523	2,031	9,729	7,871	1,858	9,903

TABLE ES-5

COMPARISON OF CURRENT AND PROPOSED RESIDENTIAL DEVELOPMENT CHARGES, PER UNIT

Service	Single and Semi-Detached			Multiples			Apartments = > 700 sqft			Apartments < 700 sqft		
	May 2022 Current charge	June 2022 Proposed Charge	Change (\$)	May 2022 Current charge	June 2022 Proposed Charge	Change (\$)	May 2022 Current charge	June 2022 Proposed Charge	Change (\$)	May 2022 Current charge	June 2022 Proposed Charge	Change (\$)
Hard Services												
Water	10,578	8,954	(1,625)	8,516	7,450	(1,067)	6,188	5,781	(407)	4,521	3,760	(761)
Wastewater	21,746	20,944	(802)	17,506	17,425	(81)	12,722	13,523	801	9,295	8,795	(500)
Roads	26,654	25,897	(757)	21,454	21,546	92	15,593	16,721	1,128	11,391	10,875	(516)
Subtotal Hard Services	58,978	55,794	(3,184)	47,476	46,421	(1,055)	34,503	36,024	1,521	25,207	23,430	(1,777)
General Services												
Transit	1,509	7,689	6,180	1,214	6,397	5,183	883	4,964	4,081	645	3,229	2,584
Toronto-York Spadina Subway Extension (TYSSE)	2,921	3,448	527	2,350	2,869	519	1,709	2,226	517	1,248	1,448	200
Yonge North Subway Extension (YNSE)	0	5,837	5,837	0	4,856	4,856	0	3,769	3,769	0	2,451	2,451
Police Services	1,042	1,078	36	839	897	58	608	696	88	445	453	8
Waste Diversion	47	362	315	39	301	262	29	234	205	20	152	132
Public Works	234	549	315	190	456	266	136	354	218	100	230	130
Housing Services	242	1,608	1,366	194	1,338	1,144	141	1,038	897	103	675	572
Growth Studies	0	175	175	0	146	146	0	113	113	0	74	74
Court Services	45	65	20	38	54	16	28	42	14	20	27	7
Ambulance Services	456	766	310	367	637	270	267	494	227	195	322	127
Public Health	134	389	255	107	323	216	78	251	173	59	163	104
Long-Term Care/Seniors Services	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal General Services	6,630	21,965	15,335	5,338	18,275	12,937	3,879	14,182	10,303	2,835	9,224	6,389
Total	65,608	77,758	12,150	52,814	64,697	11,883	38,382	50,206	11,824	28,042	32,654	4,612
% Change			19%			22%			31%			16%

TABLE ES-6

COMPARISON OF CURRENT AND PROPOSED NON-RESIDENTIAL DEVELOPMENT CHARGES, PER SQ. FT. OF GFA

Service	Retail			Industrial/Office/Institutional			Hotel		
	May 2022 Current charge	June 2022 Proposed Charge	Change (\$)	May 2022 Current charge	June 2022 Proposed Charge	Change (\$)	May 2022 Current charge	June 2022 Proposed Charge	Change (\$)
Hard Services									
Water	6.39	4.22	(2.17)	3.96	2.79	(1.17)	1.12	0.91	(0.21)
Wastewater	12.30	9.90	(2.40)	8.10	6.58	(1.52)	2.29	2.13	(0.16)
Roads	33.15	27.39	(5.76)	9.74	8.57	(1.17)	6.60	4.53	(2.07)
Subtotal Hard Services	51.84	41.51	(10.33)	21.80	17.94	(3.86)	10.01	7.57	(2.44)
General Services									
Transit	2.10	7.90	5.80	0.62	2.54	1.92	0.48	1.36	0.88
Toronto-York Spadina Subway Extension (TYSSE)	3.59	3.61	0.02	1.05	1.14	0.09	0.70	0.62	(0.08)
Yonge North Subway Extension (YNSE)	0.00	5.92	5.92	0.00	1.96	1.96	0.00	1.04	1.04
Police Services	0.70	0.67	(0.03)	0.57	0.44	(0.13)	0.14	0.14	0.00
Waste Diversion	0.03	0.00	(0.03)	0.03	0.00	(0.03)	0.03	0.00	(0.03)
Public Works	0.12	0.65	0.53	0.13	0.16	0.03	0.05	0.10	0.05
Housing Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Studies	0.00	0.13	0.13	0.00	0.09	0.09	0.00	0.03	0.03
Court Services	0.03	0.04	0.01	0.02	0.03	0.01	0.01	0.01	0.00
Ambulance Services	0.08	0.16	0.08	0.08	0.10	0.02	0.02	0.03	0.01
Public Health	0.01	0.02	0.01	0.01	0.01	0.00	0.00	0.01	0.01
Long-Term Care/Seniors Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal General Services	6.66	19.10	12.44	2.51	6.47	3.96	1.43	3.34	1.91
Total	58.50	60.61	2.11	24.31	24.41	0.10	11.44	10.91	(0.53)
% Change			4%			0%			-5%

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1 INTRODUCTION

1.1 Legislative Context

The Act (as amended) requires that Council complete a development charges background study before passing a development charges bylaw. The mandatory inclusions in such a study are set out in s.10 of the Act and in s.8 of O.Reg. 82/98, and are as follows:

1. Estimates of the anticipated amount, type and location of development (addressed in Chapter 2 of this background study)
2. Development charges calculations for each service to which the Bylaw would relate are addressed in Chapters 3-9 of this background study
3. The following details for each service to which the development charges relate:
 - The total of the estimated capital costs relating to the service
 - Any grants, subsidies, and other contributions to be deducted
 - The allocation of the costs between benefiting new and existing development
 - The total of the estimated capital costs relating to the service that will be incurred during the term of the proposed Bylaw
 - An estimation of costs which will benefit development that occurs beyond the planning horizon of the respective services under this Bylaw
 - The estimated and actual value of credits that are being carried forward relating to the service
4. Consideration by Council of the use of area-specific charges to reflect different needs for services in different areas
5. An examination of the long-term capital and operating costs for capital infrastructure required for each service to which the Bylaw would relate (addressed in Chapter 13)
6. An Asset Management Plan that deals with all assets whose capital costs are proposed to be funded under the Bylaw, demonstrating that all assets are financially sustainable over their full lifecycle (addressed in Chapter 13)
7. A municipality's DC background study to be made publicly available 60 days prior to the passing of the bylaw
8. The proposed sequence of timing involved with putting a new Bylaw in place, ensuring that all statutory requirements are met, as set out in Table 1-1

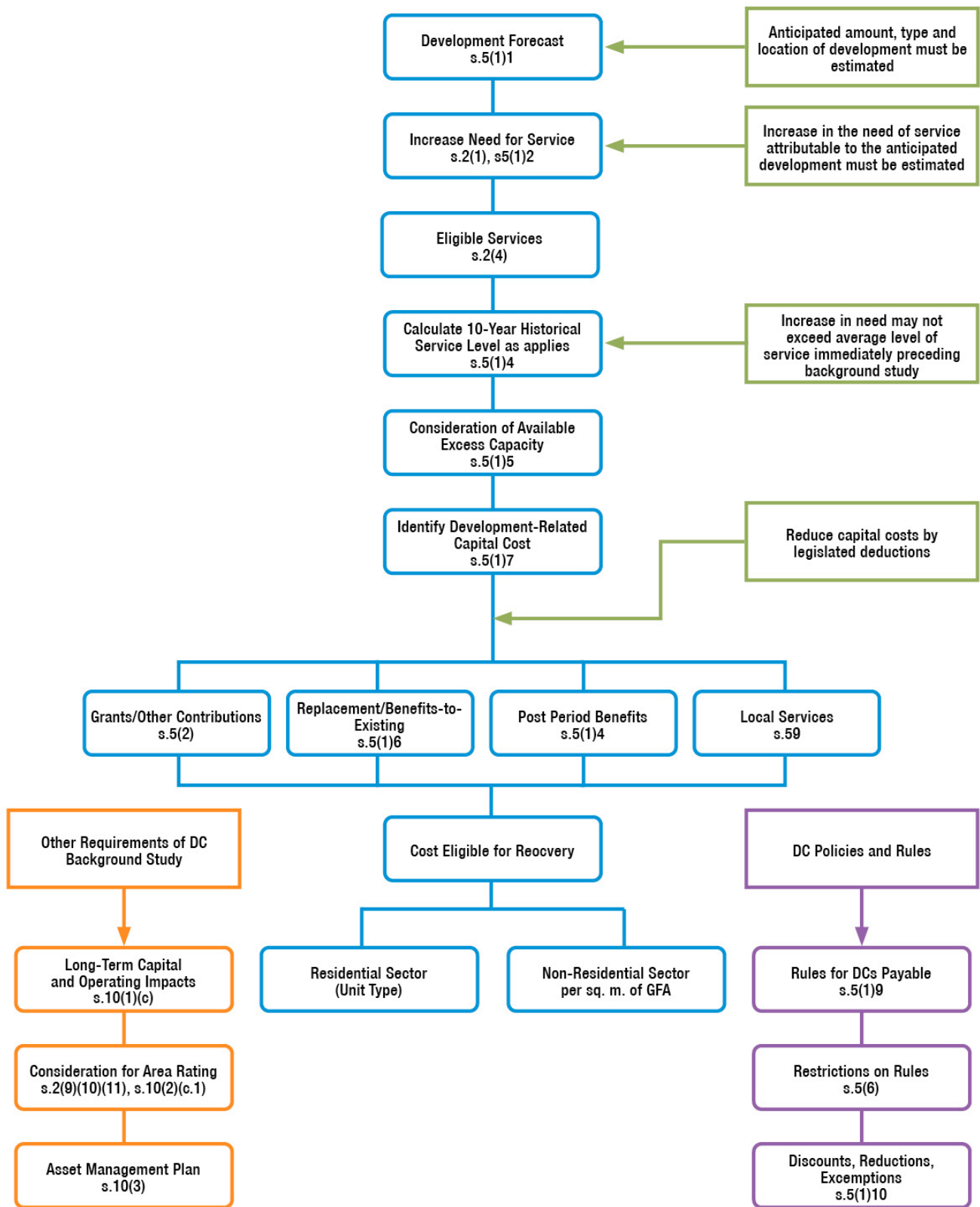
TABLE 1-1
SCHEDULE OF KEY DC BYLAW PROCESS DATES IN YORK REGION

Deliverables	Date
Status of 2022 Bylaw Update: Report to Council	June 24, 2021
2022 Development Charges Bylaw Policy Directions: Report to Council	November 25, 2021
Notice of first public meeting published	February 24, 2022
Rate Structures for the 2022 Development Charges Bylaw: Report to Council	February 24, 2022
2022 Development Charges Bylaw and Background Study tabled at Committee of the Whole	March 3, 2022
Public meeting at Council	March 24, 2022
2022 Bylaw to Council for approval	May 26, 2022
2022 Development Charges Bylaw comes into force	June 17, 2022
Notice of bylaw passage published	Within 20 days of passage
Last day for bylaw appeal	Within 40 days after passage
Region makes pamphlet available	Within 60 days after in-force date

1.1.1 Statutory Requirements for Calculating Development Charges

The key steps required in the calculation of DCs for future growth-related infrastructure are shown schematically in Figure 1-1 and summarized below:

**FIGURE 1-1
STATUTORY REQUIREMENTS FOR CALCULATING DEVELOPMENT CHARGES**



1.1.2 Changes to the Act: Bill 108, 197, 213 and 13

Table 1-2 below summarizes the changes to the Act through four bills passed by the Ontario Legislature:

- Bill 108: *More Homes, More Choice Act, 2019*
- Bill 197: *COVID-19 Economic Recovery Act, 2020*
- Bill 213: *Better for People, Smarter for Business Act, 2020*
- Bill 13: *Supporting People and Businesses Act, 2021*

The 2022 Bylaw and Background Study will be updated to reflect these changes.

**TABLE 1-2
DETAILED CHANGES TO THE ACT THROUGH ONTARIO LEGISLATURE BILLS**

Amendments to the Act	Details
Bill 108: <i>More Homes, More Choice Act, 2019</i>	<ul style="list-style-type: none"> • Installment payments: Effective January 1, 2020, for profit rental housing and institutional developments shall pay D.C.s in six (6) equal annual payments commencing at first occupancy. Non-profit housing developments shall pay D.C.s in 21 equal annual payments • Interest charges: Interest may be charged for both frozen and phased development charges from the date of Site Plan of Zoning bylaw Application to the date of building permit issuance or date of final payment • Freezing provisions: Effective January 1, 2020 the D.C. amount for all developments shall be determined based on the development charges by-law in effect on the day of Site Plan or Zoning By-law Amendment application • Exemption of additional dwelling units: Additional units in prescribed classes of existing residential buildings or prescribed structures ancillary to existing residential buildings Second dwelling unit for new residential buildings and ancillary structures • Conversion exemption: Common areas in existing rental buildings can be converted into residential units and be exempt. Limited to additional units equivalent to the greater of 1 and 1% of existing units
Bill 197: <i>COVID-19 Economic Recovery Act, 2020</i>	<ul style="list-style-type: none"> • Eligible Services: The list of DC eligible services was expanded to include most services eligible under the Act prior to Bill 108. All services currently provided by York Region remain eligible • 10% reduction: Elimination of the mandatory 10% deduction for all DC-eligible services

Amendments to the Act	Details
Bill 213: <i>Better for People, Smarter for Business Act, 2020</i>	<ul style="list-style-type: none"> • Exemption for Universities: Development on land owned or leased to a University that receives funding from the government for the purposes of post-secondary education is exempt from development charges
Bill 13: <i>Supporting People and Businesses Act, 2021</i>	<ul style="list-style-type: none"> • Yonge North Subway Extension: The amendments change the method by which the estimate for the increase in the need for the YNSE is calculated by basing it on the planned LOS provided in the municipality over the 20-year period immediately following the preparation of the background study (further guidance was provided through O.Reg. 847/21, which amended O.Reg 192/07)

1.2 Growth Forecast

The first step in the rate calculation requires a development forecast to be prepared for future residential and non-residential development anticipated to occur over the following planning horizons:

- 2022-2041 for Water, Wastewater, Roads, Yonge North Subway Extension (YNSE), Police, Waste Diversion, Public Works, Housing Services, Growth Studies, Court Services
- 2022-2031 for Transit, Toronto-York Spadina Subway Extension (TYSSE), Ambulance Services, Public Health, Long-Term Care/Seniors Services

A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019 (Growth Plan), as amended, sets out population and employment forecasts and requires municipalities to plan to achieve these targets. The growth forecasts for the background study are based on the Growth Plan targets, Census data, employment surveys and planned development activity in the Region.

For residential growth forecast, both gross and net population growth are estimated:

Gross population growth = Total population in new housing units

Net population growth = Population in new housing units adjusted for the decline in the population in the existing base

Gross population growth is used in the calculation of DCs per capita.

The non-residential portion of the forecast estimates the gross floor area (GFA) of building space to be developed over the planning horizon based on employment forecast for the Region.

Floor space per worker index is used to convert the employment forecast into GFA for the purposes of the DC study.

Detailed growth forecast can be found in Chapter 2 of this Background Study.

1.3 Council Approval of the Capital Program

To include an increase in need for service in the development charges calculation, Regional Council must indicate "...that it intends to ensure that such an increase in need will be met" (s.s.5 (1)3). This can be done if the increase in service forms part of a Council-approved Official Plan, capital forecast or similar expression of the intention of Council (O.Reg. 82/98 s.3). The capital program contained herein reflects York Region's approved capital plan and also reflects previous approvals of York Region's Transportation Master Plan and Water and Wastewater Master Plan.

1.4 Service Categories Potentially Involved

Table 1-3 below provides a range of municipal service categories, and identifies whether they can, subject to the subsection 2(4) of the Act, be included in the development charges calculation.

In addition, subsection 5(3) of the Act lists capital costs in respect of eligible services that are eligible for inclusion and two ineligible costs, such as "computer equipment" and "rolling stock with an estimated useful life of seven years or more." In instances where rolling stock has an equivalent life, due to use, of seven years (e.g., police vehicles) they have been included as an eligible cost.

Local water, wastewater, stormwater management and road works are recovered separately under subdivision agreements and related means (as are other local services).

TABLE 1-3

ELIGIBILITY OF MUNICIPAL SERVICES FOR DEVELOPMENT CHARGES RECOVERY

Service	Service Categories	DC Eligibility
Services Related to a Highway	Arterial roads	✓
	Traffic signals	✓
	Interchanges and grade separations	✓
Transit Services	Transit vehicles	✓
	Other transit infrastructure	✓
	Works yards	✓
	Rolling stock	✓
TYSSE	As defined in s. 5.1(1) of the Act	✓
YNSE	As defined in s. 5.1.1(1) of the Act	✓
Water Supply Services	Treatment plants	✓
	Distribution systems	✓
Wastewater Services	Treatment plants	✓
	Sewage trunks	✓
	Vehicles and equipment	

Service	Service Categories	DC Eligibility
		✓
Waste Diversion Services	Collection, transfer vehicles and equipment (not for waste diversion purposes)	✗
	Landfills, incineration, and other disposal facilities	✗
	Other waste diversion facilities and vehicles*	✓
Police Services	Police detachments	✓
	Police vehicles*	✓
	Small equipment and gear	✓
	Communications systems	✓
Long-Term Care/Seniors Services	Long-term-care facilities	✓
Public Health Services	Public health facilities, vehicles	✓
Housing Services	Housing facilities	✓
Ambulance Services	Ambulance station space	✓
	Vehicles*	✓
Provision of Headquarters for the General Administration of Municipalities and Local Boards	Office space (all services)	✗
	Office furniture	✗
	Computer equipment	✗
Growth Studies	Growth-related studies of a corporate nature (e.g., DC studies, master plans, official plans, etc.)	✓
Court Services	Court facilities	✓

*Note: with 7+ years of useful life or the equivalent

1.5 Historical Service Level Calculation

Section 5(1) 4 of the Act 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 (LOS) exceeding the average level of that service provided in the municipality over the 10-year period immediately preceding the preparation of the background study.

Future servicing requirements for Water and Wastewater services are subject to provincial health and environmental requirements. Section 4(3) of O.Reg. 82/98 allows for the LOS to be determined under the requirements of Acts other than the Act if the average LOS determined is lower than the standard LOS required under another Act.

Transit services, TYSSE, and the YNSE are based on a “planned” LOS and are not subject to average historical service-level cap.

A review of the Region's inventory of buildings, land, vehicles and equipment has been prepared to calculate the average LOS provided over the 2012-2021 period for the relevant services to determine the portion of future capital projects that may be included in the DC rate calculation.

To determine the funding envelope, any positive reserve balances are added to the LOS while negative balances are removed. The reserves are indicative of whether the municipality have constructed the service capacity needed for development that has already occurred.

In addition, any outstanding development charge debt principal that is to be recovered under this bylaw have been removed to determine the total eligible funding envelope for new projects .

The LOS calculation for each service can be found in Chapters 3 to 9.

1.6 Growth-related Capital Program and In-Period DC-eligible Costs

Section 5(1) 3 of the Act requires that the increase in the need for service attributable to the anticipated development may be included only if the council of the municipality has indicated that it intends to ensure that such an increase in need will be met. The growth-related capital program included in the study ensures that DCs are only imposed to help pay for projects that have been, or are intended to be, purchased or built to accommodate anticipated development. The Act also requires that any available uncommitted excess capacity be netted off from growth-related costs. The Region does not have uncommitted capacity for any of its services.

As required by Section 5(2) and Section 5(1) 5, 6 of the Act, the gross costs identified in the capital program have been reduced by the following to arrive at the in-period DC-eligible costs:

- **Capital grants, subsidies or contributions:** anticipated grants subsidies and contributions from other levels of government or sources
- **Benefit to existing development (BTE):** portion of the project that confer benefits to existing residents
- **Level of service cap (LOS cap):** any amount that exceeds the average level of the service provided in the municipality over the 10-year period immediately preceding the preparation of the background study
- **Post period benefit (PPB):** planned capacity intended to meet servicing requirements beyond the planning horizon of this bylaw

Detailed growth-related capital program, methodologies for determining statutory deductions, and calculated in-period DC eligible costs for each service can be found in Chapters 3 to 9.

1.6.1 Applicable Credits

Section 8(1) 5 of O.Reg. 82/98 indicates that a development charge background study must set out, "The estimated value of credits that are being carried forward relating to the service." A credit is, in effect, a municipal payment liability linked to the prior provision of infrastructure by a landowner. Credits have been included in the development charges calculation to ensure that the necessary development charge "funding room" has been provided.

York Region has made agreements with respect to a number of credits, which are incorporated in the calculation of the charge, for each of the services involved. Details of the Region's Development Charge Credit policy can be found in Chapter 11.

1.7 Attribution to Types of Development

The growth-related in-period development charge eligible costs are allocated between the residential and the non-residential sectors based on assessment of use to which the two types of developments are expected to require capital expenditures.

**TABLE 1-4
RESIDENTIAL/NON-RESIDENTIAL COST SHARE BY SERVICE**

Service	Residential Cost Share	Non-Residential Cost Share	Basis of Allocation
Water & Wastewater	79%	21%	Incremental flow estimates
Waste Diversion, Housing services, Long-Term Care/ Seniors Services	100%	0	All costs allocated to residential
Public Health	97%	3%	Based on a survey of current program services
Ambulance Services	90%	10%	Net increment in population and employment growth, with population weighted at three times that of employment
Transit and TYSSE	74%	26%	Net incremental population and employment growth
All other services	75%	25%	Net incremental population and employment growth

The residential component of the DC is applied to different housing types based on average occupancy factors. The non-residential component has been further categorized into retail, industrial, office, institutional, and hotel.

1.8 Reserve Fund Balances allocation and Cash Flow Analysis

A cash flow analysis is used to account for the timing of projects and receipt of DCs, together with interest earnings and/or borrowing costs and inflation. This is done through the establishment of a reserve continuity schedule.

Opening reserve balances are allocated to rate categories. Negative balances are allocated on the basis of forecasted residential and non-residential growth. Positive reserve balances are allocated

based on actual development charge collections.

The cash flow analysis can be found in Chapter 10.

1.9 Other Requirements of the DC Study

1.9.1 Asset Management Plan

The asset management plan shall,

- a) deal with all assets whose capital costs are proposed to be funded under the DC bylaw
- b) demonstrate that all the assets included are financially sustainable over their full life cycle
- c) contain any other information that is prescribed
- d) be prepared in the prescribed manner

1.9.2 Long-term Capital and Operating Impacts

Section 10 (2) (c) of the Act requires an examination of the long-term capital and operating costs for capital infrastructure required for each service to which the development charge by-law would relate.

1.9.3 Consideration of Area Rating

Council must consider the use of area rating, also known as area-specific development charges, as part of the DC Background Study. The Act permits the Region to designate the areas where development charges shall be imposed. The charges may apply to all lands in the Region or only to designated areas as specified in the DC Bylaw.

With the exception of the wastewater charge for the Village of Nobleton, York Region's existing development charge policy is to levy a uniform Region-wide rate. The 2022 Bylaw update proposes to continue with this approach (discussed in more detail in Chapter 12 and in Appendix B).

1.9.4 Sixty-day Circulation Period of the DC Background Study

Municipalities must ensure that a development charges background study is made available to the public at least 60 days prior to the passing of the development charges bylaw and until the bylaw expires or is repealed by posting the study on the website of the municipality or, if there is no such website, in the municipal office.

1.9.5 Rules for Development Charges Payable

The rules for determining if development charges are payable in any particular case and for determining the amount of the development charges involved, are set out in the proposed Bylaw. The quantum of the development charges payable is as calculated in Chapters 3-9 and summarized in the Executive Summary.

The bylaw includes rules deal with matters such as: multiple charges, the connection between servicing needs and development, the list of services for which charges are being imposed, types of development approval triggering the need for the imposition of development charges, the requirements for the installation of local services in addition to payment of the development charge,

the method used in calculating development charges for individual developments, the quantum of the charge, the timing of calculation and payment, the alternative means of payment, exemptions, phasing- in of charges, indexing and charges imposed on redevelopment.

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2 ANTICIPATED DEVELOPMENT IN YORK REGION

This chapter details the development forecast used in calculating the development charges, as well as a summary of the forecast results.

2.1 Development Charges Growth Forecast

In August 2020, the Province updated the Growth Plan's population and employment targets for municipalities across the Greater Golden Horseshoe (GGH) and extended the planning horizon from 2041 to 2051. York Region has been assigned a target of 2.02 million people and 990,000 jobs by 2051.

York Region is undertaking a Regional Municipal Comprehensive Review (MCR), a key part of which is updating the Region's population and employment forecasts contained in the current Regional Official Plan, and ensuring it meets the target set out in Schedule 3 of the Growth Plan.

This background study assumes a total population 1,704,700 and total employment forecast 860,500 to mid-2041 as the basis for forecasting anticipated development which aligns with the MCR and the updates to Region's infrastructure Master Plans.

2.2 Population and Housing Unit Growth Forecast

The methodology used to generate the population and residential unit mix forecast is outlined in Attachment 1 of the March 2021 York Region staff report on the Proposed 2051 Forecast and Land Needs Assessment.

Net population growth refers to the total growth in population considering both population in new housing units and the decline in population in existing units. The mid-year 2041 net population forecast is 1,704,700. For the purposes of calculating development charges, the population forecast includes the Census undercount but does not include the Region's institutional population. Table 2-1 below summarizes the population and housing unit forecast for the DC growth forecast.

**TABLE 2-1
RESIDENTIAL GROWTH FORECAST SUMMARY**

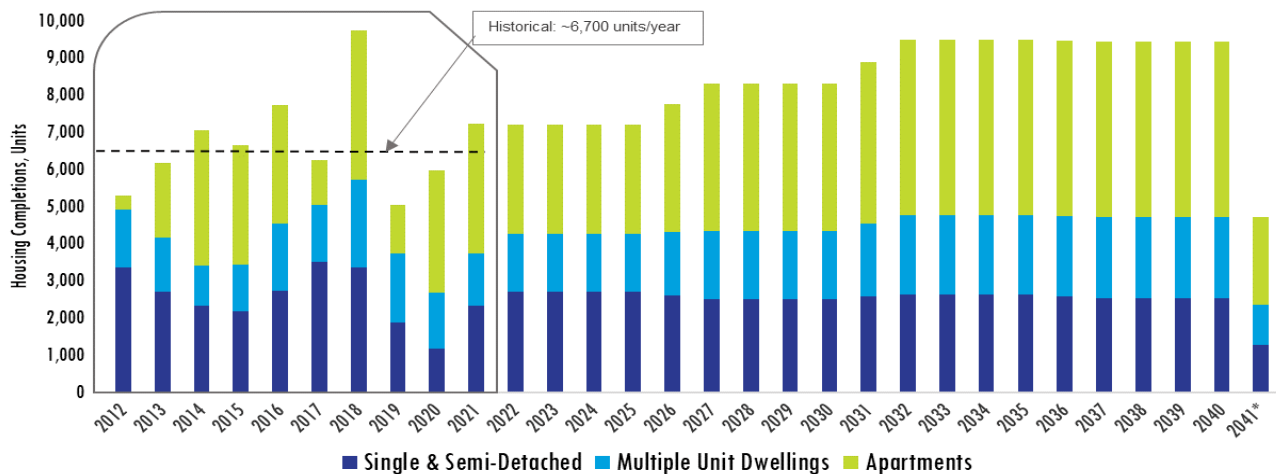
Year End	Net Population (excl. institutional population)	Housing Units			
		Single and Semi-Detached Dwellings	Multiple Unit Dwellings ¹	Apartments ²	Total Households
2021	1,227,700	264,357	68,163	63,420	395,940
2026	1,333,300	276,216	76,045	79,508	431,769
2031	1,449,700	289,880	85,127	98,042	473,049
2036	1,581,300	303,046	96,025	122,056	521,127
2041 Mid-year	1,704,700	314,846	105,794	143,580	564,219
2022-2031	222,000	25,523	16,964	34,622	77,109
2022-2041	477,000	50,489	37,631	80,159	168,279

¹ Multiple dwellings consist of row and duplex units.

² Apartment category includes stacked townhouses
Numbers may not sum up due to rounding

From 2022 to mid-2041, the Region is expected to add just over 168,000 residential units, of which 30% are single and semi-detached dwellings, 22% for multiple unit dwellings, and the remaining 48% are apartments. The housing unit mix forecast to 2041 assumes a gradual shift in the Region's housing mix to higher density forms of housing over the forecast period. This change in housing mix is required to respond to the changing demographics of the Region and to meet the Growth Plan's intensification policy requirements. Figure 2-1 below shows the historical and forecast housing growth by type in the Region.

**FIGURE 2-1
HISTORICAL AND FORECAST HOUSING GROWTH (2012 – 2041)**



* 2041 is a half year

2.3 Persons Per Unit Assumptions

'Average' persons per unit (PPU) by dwelling type are based on historical data of PPU's for recently constructed units from Statistics Canada (2001 to 2016) and account for the shift of more families occupying higher density structure types. The 'total unit' PPU's are based on the unit type PPU's weighted by housing forecast mix, which are then adjusted to account for Census undercount.

Table 2-2 summarizes the PPU assumptions informing the housing forecast.

TABLE 2-2
PPU ASSUMPTIONS FOR DC RATE CALCULATIONS

Housing Type	10-year Average Persons per Unit	19.5-year Average Persons per Unit
Single and Semi-Detached Dwellings	3.81	3.81
Multiple Unit Dwellings	3.17	3.17
Large Apartments > = 700 sq. ft.	2.46	2.46
Small Apartments < 700 sq. ft.	1.60	1.60
Total Apartments	2.04	2.04
Weighted PPU	2.88	2.83

Gross population growth only includes the population in new housing units, with no consideration for the decline in the existing population base. For the 10-year DC period, the growth in gross population of 222,074 was estimated by applying the persons per unit (PPU) by dwelling type to the forecast of housing units. (Table 2-3). The calculation of population in new housing units for the 19.5-year DC period to 2041 is also based on the same PPU assumptions. Using this method, the gross population increase from 2022 to 2041 is estimated to be 476,277 (Table 2-4).

TABLE 2-3

YORK REGION 10-YEAR GROWTH FORECAST: 2022 TO 2031

ESTIMATED YORK REGION POPULATION BY DECEMBER 31, 2021: 1,227,700, including:

- the 2016 Census population with an undercount adjustment
- CMHC housing completion data from May 2016 to June 2021
- estimates for additional units to be completed in 2021 x the 2016 PPU (does not include institutional population) adjusted for an estimated decline

Average Persons Per Unit (PPU) Assumptions

	PPU		Housing Mix	=	Weight
Single and Semi-Detached Dwellings	3.81	x	33.1%	=	1.26
Multiple Unit Dwellings	3.17	x	22.0%	=	0.70
Apartments	2.04	x	44.9%	=	0.92
Weighted Average					2.88

Persons Per Unit (PPU): Based on census 2016 information for households in newly constructed units for the 2001 to 2016 period, as well as adjustments to align with 2051 forecast and adjusted for Census undercount

* Based on estimated forecast mix for the 2021 to 2031 period.

NEW HOUSING UNITS' OCCUPANTS – END OF 2021 TO END OF 2031

Household Unit Growth		PPU		Gross Population Increase
77,109	x	2.88	=	222,074

Note: Numbers may not sum due to rounding

DECLINE IN HOUSING UNIT OCCUPANCY – END OF 2021 TO MID 2031

Occupied Household at Dec. 31, 2021		PPU Decline Rate		Total Population Decline
395,940	x	0.02%	=	74
Net Population Increase				220,000

Note: Numbers may not add up due to rounding

FORECAST FOR MID-YEAR 2031

Total Households	Total Net Population
473,049	1,449,700

Notes for the 2031 Growth Forecast

DECLINE IN HOUSING UNIT OCCUPANCY – END OF 2021 TO END OF 2031

December 31, 2021 occupied household estimate: Based on 2016 occupied household Census total plus CMHC housing completion to Jun 2021 plus estimate of units under construction to be completed in 2021

$$\text{PPU decline rate} = \frac{\text{Gross population increase} + \text{Year-end 2021 population estimate} - \text{2031 year-end population forecast}}{\text{2021 year-end household estimate}}$$

Total population decline = PPU decline rate x 2021 year-end household estimate

Forecast for mid-year 2041: Households - 2031 year-end forecast; Population – 2031 year-end forecast (not incl. institutional population)

Net population increase = 2031 year-end forecast – 2021 year-end estimate

TABLE 2-4

YORK REGION 20-YEAR GROWTH FORECAST: 2022 TO 2041

ESTIMATED YORK REGION POPULATION BY DECEMBER 31, 2021: 1,227,700, including:

- the 2016 Census population with an undercount adjustment
- CMHC housing completion data from May 2016 to June 2021
- estimates for additional units to be completed in 2021 x the 2016 PPU (does not include institutional population) adjusted for an estimated decline.

Average Persons Per Unit (PPU) Assumptions

	PPU		Housing Mix	=	Weight
Single and Semi-Detached Dwellings	3.81	x	30.00%	=	1.14
Multiple Unit Dwellings	3.17	x	22.36%	=	0.71
Apartments	2.04	x	47.63%	=	0.97
Weighted Average					2.83

Persons Per Unit (PPU): Based on census 2016 information for households in new constructed units for the 2001 to 2016 period, as well as adjustments to align with 2051 forecast and adjusted for Census undercount

* Based on estimated forecast mix for the 2021 to 2041 period.

NEW HOUSING UNITS' OCCUPANTS – END OF 2021 TO END OF 2041

Household Unit Growth		PPU		Gross Population Increase
168,279	x	2.83	=	476,277

Note: Numbers may not sum due to rounding

DECLINE IN HOUSING UNIT OCCUPANCY – END OF 2021 TO MID 2041

Occupied Household at Dec. 31, 2021		PPU Decline Rate		Total Population Decline
395,940	x	-0.18%	=	-723
Net Population Increase				477,000

Note: Numbers may not sum due to rounding

FORECAST FOR MID-YEAR 2041

Total Households	Total Net Population
564,219	1,704,700

Notes for the 2041 Growth Forecast

DECLINE IN HOUSING UNIT OCCUPANCY – END OF 2021 TO END OF 2041

December 31, 2021 occupied household estimate: Based on 2016 occupied household Census total plus CMHC housing completion to Jun 2021 plus estimate of units under construction to be completed in 2021

$$\text{PPU decline rate} = \frac{\text{Gross population increase} + \text{Year-end 2021 population estimate} - \text{2041 mid-year population forecast}}{\text{2021 year-end household estimate}}$$

Total population decline = PPU decline rate x 2021 year-end household estimate

Forecast for mid-year 2041: Households - 2041 mid-year forecast; Population – 2041 mid-year forecast (not incl. institutional population)

Net population increase = 2041 mid-year forecast – 2021 year-end estimate

2.4 Employment and Non-Residential Space Forecast

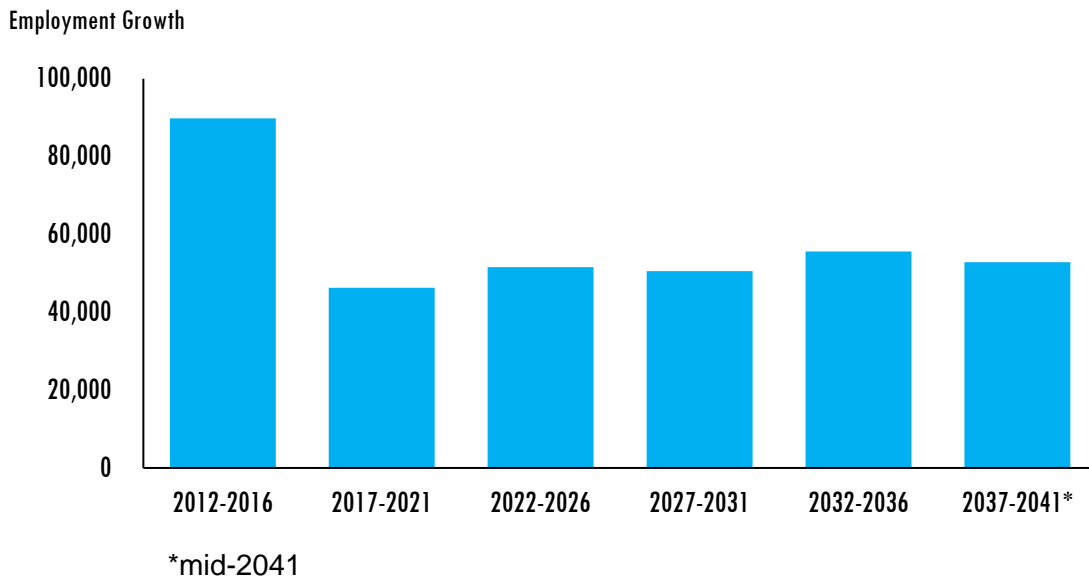
Consistent with the population forecast, the employment forecast is based on the recent York Region MCR work. The methodology for the employment forecast is outlined in Attachment 1 of the March 2021 York Region staff report on the Proposed 2051 Forecast and Land Needs Assessment. The impact of the COVID-19 pandemic was not evaluated for the forecast as it is too early to identify any long-term trends. The next MCR may provide further insights into the impacts of COVID-19.

The forecast total employment to mid-2041 is 860,500 (Table 2-5) with growth of approximately 210,600 over the 19.5-year forecast period, or about 10,800 jobs per year. To calculate non-residential development charge rates, work-at-home employment was removed from the total employment forecast growth, as it does not result in new building space. There was also an adjustment made to account for some employment growth that will occur in existing space and therefore not require new building space.

The employment growth (less work at home employment) by building type is estimated by examining the forecast by the four employment types – major office, employment land, population-related, and rural employment. The shares of growth within each employment type by the four building types (industrial, office, institutional, and retail) were estimated by examining historical shares of employment growth using York Region’s building permit data and employment survey data. In addition, a hotel space forecast was also generated as a segment of the retail building type.

Figure 2-2 shows historical forecast year-end to year-end employment growth with the exception of 2041 which is to mid-year.

FIGURE 2-2
YORK REGION HISTORICAL AND FORECAST EMPLOYMENT GROWTH



To derive the total employment growth that will generate new non-residential space (Table 2-5), the following deductions are made:

1. Work-at-Home Employment

Work-at-home employment is based on a projection that calculates work-at-home as a share of the Region's labour force. Work-at-home employment in the Region is forecast to increase from about 10% to 12% as a share of total employment growth over the forecast period. The employment growth (less work at home employment) by building type is estimated by first examining the forecast by the four employment types – major office, employment land, population-related, and rural employment. The shares of growth within each employment type by the four building types (industrial, office, institutional, and retail) were estimated by examining historical shares of employment growth using York Region building permit data and employment survey data.

2. GFA Growth Adjustment Factor

An adjustment factor is applied to the employment growth (less the work-at-home employment growth) to account for employment growth that does not require new floor space. Recent development trends suggest that the forecast employment growth does not align with growth occurring in new space. This could be due to existing space achieving planned occupancy (previously unoccupied space), and/or through renovations of existing space allowing for higher employment density. In addition, the adjustment factor also accounts for the anticipated continued increase in contracting out and growth in no-fixed place of work employment. The adjustment factor is a necessary modification to the employment forecast.

**TABLE 2-5
EMPLOYMENT GROWTH FORECAST**

	All Employment Growth											Employment requiring new space(reflecting reoccupation and intensification in new space)						
	Total Employment	Employment Growth	WFH Share	Employment growth Less WFH	Other Retail	Industrial	Office	Institutional	IOI	Hotel	Total	Other Retail	Industrial	Office	Institutional	IOI	Hotel	Total Employment requiring new space
2021	649,900																	
2022	660,250	10,350	9.78%	9,337	1,806	3,296	2,922	1,277	7,495	36	9,337	1,714	2,802	2,192	1,213	6,207	36	7,957
2023	670,600	10,350	9.78%	9,337	1,806	3,296	2,922	1,277	7,495	36	9,337	1,714	2,802	2,192	1,213	6,207	36	7,957
2024	680,950	10,350	9.78%	9,337	1,806	3,296	2,922	1,277	7,495	36	9,337	1,714	2,802	2,192	1,213	6,207	36	7,957
2025	691,300	10,350	9.78%	9,337	1,806	3,296	2,922	1,277	7,495	36	9,337	1,714	2,802	2,192	1,213	6,207	36	7,957
2026	701,500	10,200	9.78%	9,202	1,779	3,249	2,880	1,258	7,387	37	9,203	1,688	2,761	2,160	1,195	6,116	37	7,841
2027	711,500	10,000	10.84%	8,916	1,709	3,132	2,828	1,209	7,169	37	8,915	1,622	2,662	2,121	1,149	5,932	37	7,591
2028	721,500	10,000	10.84%	8,916	1,709	3,132	2,828	1,209	7,169	37	8,915	1,621	2,662	2,121	1,149	5,932	37	7,590
2029	731,500	10,000	10.84%	8,916	1,709	3,132	2,828	1,209	7,169	37	8,915	1,622	2,662	2,121	1,149	5,932	37	7,591
2030	741,500	10,000	10.84%	8,916	1,709	3,132	2,828	1,209	7,169	37	8,915	1,621	2,662	2,121	1,149	5,932	37	7,590
2031	752,050	10,550	10.84%	9,406	1,803	3,304	2,984	1,276	7,564	39	9,406	1,710	2,809	2,238	1,212	6,259	39	8,008
2032	763,100	11,050	10.91%	9,844	1,901	3,305	3,230	1,366	7,901	42	9,844	1,804	2,810	2,422	1,298	6,530	42	8,376
2033	774,150	11,050	10.91%	9,844	1,901	3,305	3,230	1,366	7,901	42	9,844	1,804	2,810	2,422	1,298	6,530	42	8,376
2034	785,200	11,050	10.91%	9,844	1,901	3,305	3,230	1,366	7,901	42	9,844	1,804	2,810	2,422	1,298	6,530	42	8,376
2035	796,250	11,050	10.91%	9,844	1,901	3,305	3,230	1,366	7,901	42	9,844	1,804	2,810	2,422	1,298	6,530	42	8,376
2036	807,650	11,400	10.91%	10,156	1,961	3,410	3,332	1,410	8,152	43	10,156	1,861	2,899	2,499	1,339	6,737	43	8,641
2037	819,400	11,750	11.72%	10,373	1,978	3,395	3,530	1,427	8,352	44	10,374	1,877	2,885	2,647	1,355	6,887	44	8,808
2038	831,150	11,750	11.72%	10,373	1,978	3,395	3,530	1,427	8,352	44	10,374	1,877	2,885	2,647	1,355	6,887	44	8,808
2039	842,900	11,750	11.72%	10,373	1,978	3,395	3,530	1,427	8,352	44	10,374	1,877	2,885	2,647	1,355	6,887	44	8,808
2040	854,650	11,750	11.72%	10,373	1,978	3,395	3,530	1,427	8,352	44	10,374	1,877	2,885	2,647	1,355	6,887	44	8,808
mid-2041	860,500	5,850	11.72%	5,164	985	1,690	1,757	710	4,157	22	5,164	934	1,437	1,318	675	3,430	22	4,386
2022-2031		102,150		91,622	17,642	32,265	28,864	12,478	73,607	368	91,617	16,740	27,426	21,650	11,855	60,931	368	78,039
2022-2041		210,600		187,809	36,104	64,165	60,993	25,770	150,928	777	187,809	34,259	54,542	45,743	24,481	124,766	777	159,802

The forecast growth in non-residential space is derived by multiplying the employment growth requiring new space for each building type with employee density assumptions also known as floor space per worker (FSW). The FSW assumptions were derived by examining industry standards and the observed employment densities of buildings constructed using data and information from the York Region employment survey and building permits. Table 2-6 summarizes the FSW assumptions used in the non-residential space forecast (Table 2-7).

TABLE 2-6
NON-RESIDENTIAL FSW PER EMPLOYEE ASSUMPTIONS

Employment Type	Sq. Ft. per Employee
Retail	430
Industrial	850
Office	250
Institutional	900
Hotel	2,000

TABLE 2-7
NON-RESIDENTIAL GFA GROWTH FORECAST

Floor Space per Worker	Retail 430	Industrial 850	Office 250	Institutional 900	Hotel 2,000	Total
2022	736,966	2,381,718	547,923	1,091,742	72,000	4,830,082
2023	737,005	2,381,718	547,923	1,091,742	72,000	4,829,942
2024	736,966	2,381,718	547,923	1,091,742	72,000	4,830,082
2025	736,966	2,381,718	547,923	1,091,742	72,000	4,830,082
2026	725,783	2,347,200	539,982	1,075,920	74,000	4,761,917
2027	697,281	2,262,997	530,329	1,033,968	74,000	4,598,742
2028	697,242	2,262,997	530,329	1,033,968	74,000	4,598,883
2029	697,281	2,262,997	530,329	1,033,968	74,000	4,598,742
2030	697,242	2,262,997	530,329	1,033,968	74,000	4,598,883
2031	735,504	2,387,461	559,497	1,090,836	78,000	4,852,135
2032	775,604	2,388,152	605,601	1,168,132	84,000	5,021,010
2033	775,604	2,388,152	605,601	1,168,132	84,000	5,021,010
2034	775,604	2,388,152	605,601	1,168,132	84,000	5,021,010
2035	775,604	2,388,152	605,601	1,168,132	84,000	5,021,010
2036	800,261	2,463,795	624,783	1,205,131	86,000	5,179,714
2037	806,907	2,452,542	661,810	1,219,811	88,000	5,229,215
2038	806,945	2,452,542	661,810	1,219,811	88,000	5,229,074
2039	806,907	2,452,542	661,810	1,219,811	88,000	5,229,215
2040	806,945	2,452,542	661,810	1,219,811	88,000	5,229,074
mid-2041	401,733	1,221,053	329,497	607,310	44,000	2,603,494
2022-2031	7,198,236	23,313,521	5,412,487	10,669,596	736,000	47,329,490
2022-2041	14,730,350	46,361,145	11,436,411	22,033,809	1,554,000	96,113,316

3 WATER: CAPITAL FORECASTS AND DC-RECOVERABLE COSTS

3.1 Program Description

The water capital program (Table 3-4) consists of infrastructure and initiatives required to support growth as recommended by the 2021 York Region's Water and Wastewater Master Plan Update (2021 Master Plan), and other studies. The program includes several projects consisting of a combination of the following components:

- Water supply including wells, treatment and cost-shared projects with the City of Toronto and the Region of Peel
- Pumping stations
- Storage facilities
- Watermains and system interconnections
- Planning and studies to support growth such as Long-Term Water Conservation program, Master Plans and Capacity Assessments

3.2 Level of Service

When another Act or Provincial Agency requires a higher level of service than what is permitted under section 5(1)4 of the Act, development charges may be established based on the prescribed level of service as required under another Act. York Region's water service is provided in accordance with provincial design guidelines and requirements and recognizes engineering design standards.

Through the Water and Wastewater Master Plan, design unit rates are developed to assist in identifying infrastructure needs over the long term. Water design unit rates recommended by the 2021 Master Plan, shown in Table 3-1, have been derived from the Regional water consumption forecast model that uses regression analysis of past water consumption trends, while taking into consideration the Region's long-term Water Conservation Program. Unit rates will continue to be monitored and adjusted as flow data becomes available to inform the water program implementation.

TABLE 3-1
2041 WATER DESIGN UNIT RATES

	Residential (l/c/d*)	Employment (l/c/d)
2021 Master Plan**	195	151
2016 Master Plan	189	144
2009 Master Plan	239	228

* Litres per capita per day

** While using the same methodology to estimate unit rates (i.e., Water Consumption Forecast Model), the 2021 Master Plan unit rates are marginally higher than those in the 2016 Master Plan. This is attributed to recalibration of existing flows with measured water production data since 2016. The unit rates shown in the 2017 DC Bylaw (201 l/c/d for residential and 155 l/c/d for employment) came from the 2016 Master Plan Update and are applicable to year 2031.

3.3 Benefit to Existing Development Deduction

As with other services, the methodology for establishing benefit to existing deduction is based on the principle that growth should pay for growth. Therefore, when a project was required to meet an increase in need due to development, no benefit to existing was allocated. In cases where benefit to existing was considered, it was addressed on a project-by-project basis.

1. In cases of **enhancements and/or modification of the existing treatment processes** to meet statutory requirements, the following methodology applies:
 - a) No benefit to existing applies where a growth project requires enhancement and/or modification of the existing treatment process to meet stringent regulatory requirements as part of the project approval requirements. Existing residents should not be asked to pay for improvements they don't need if growth does not occur
 - b) Where it can be demonstrated that enhancement of treatment process is required regardless of the growth project, then a portion of the project can be considered benefit to existing
2. In the case of **enhancements for system security**:
 - a) No benefit to existing applies to growth projects which add system security
 - b) If a portion of the project is triggered solely by the need to provide system redundancy, and is not required for growth, then the corresponding cost will be considered benefit to existing and is not included in the development charges rate calculation

3. In the case of growth projects **replacing/decommissioning of existing facilities**, the following methodology applies:
- a) If the replacement year of an existing facility is within 10 years of the timing of the growth project, the two projects can be combined. As such, where a growth project replaces a facility within 10 years of the end of its useful life as identified in a completed condition assessment, the Region’s Asset Management Plan or established under the Public Sector Accounting Board (PSAB) reporting a portion of the cost can be considered as benefit to existing and is calculated as follows:

$$BTE = \frac{C_o}{C_u} x P$$

Where:

C_o is the capacity of the existing facility to be replaced

C_u is the total capacity of the new facility

P is the cost of the project within the DC period including facility decommissioning

- b) Where a growth project advances the replacement of an existing facility by more than 10 years from the end of its expected useful life, no benefit to existing applies, and the replacement cost would be fully attributable to growth because:
- The existing facility is still sound, and the service received by the residents will not noticeably and tangibly be increased by the new facility
 - The time value of money for improvements is higher when payments are advanced
 - Funds collected to cover the specific facility replacement have not yet built up to the target amount

3.4 Post Period Benefit Deduction

Where infrastructure is sized to accommodate growth beyond the Bylaw planning horizon, the additional cost of providing the oversized infrastructure has been recognized as post period benefit and calculated on a project-by-project basis, as follows:

1. **In the case of discrete assets**, such as groundwater wells, storage facilities, treatment plants and pumping stations, a pro-rated capacity method is used. This method is based on pro-rating the cost of capacity attributable to growth beyond the planning horizon (post 2041), excluding base costs that would be required, regardless of the planning period or capacity of the project. Such post-period costs would be eligible for recovery in subsequent development charges bylaws.

$$PPB = \frac{C_u - F_{pp}}{C_u - C_e} \times P_{net}$$

Where:

C_u is the total capacity immediately after new facility completion in the service area up to 2051

F_{pp} is the estimated flows in the service area in 2041

C_e is the existing capacity before commissioning the new facility

P_{net} is the cost of the project excluding certain base costs, such as:

- Environmental Assessment costs which are expected to be generally the same for a facility sized for 2041 or for other years, i.e., 2051
- Supervisory Control and Data Acquisition System costs are expected to be generally the same for facility sized for 2041 or for other years
- For a pumping facility, normally at least one pump is required for standby. If a standby pump is required for the new facility, the hypothetical cost of one-pump station is considered base cost and calculated as:

Base Cost = P / Number of pumps

Where:

P is the project cost excluding environmental assessment and SCADA system costs

- Other fixed costs where applicable, on a project-by-project basis.

No post period benefit will apply for decommissioning projects in general, as there is no benefit to growth beyond 2041.

2. The determination of post period benefit for **Peel and Toronto cost-shared projects** (through partnership servicing agreements) is based on a pro-rated capacity method, which has been used since 2012, and calculated as follows:

$$PPB = \frac{C_{agt} - D_{2041}}{C_{agt} - C_{2022}} \times P_{cs}$$

Where:

C_{agt} is the total capacity that York Region secured with municipal partners (535 ML/d from Toronto and 331 ML/d from Peel)

D_{2041} is the estimated Lake Ontario based demand required from Toronto and Peel water systems in 2041

C_{2022} is the capacity York Region secured from Toronto and Peel at the beginning of 2022

P_{cs} is the total York Region share of the cost-shared projects in Toronto and Peel from 2022 onwards to provide the respective capacities, excluding costs related to administration of the servicing agreements

3. **In the case of linear assets**, a marginal cost approach is used. The cost of a project (including planning, design, construction, contingency and project management) required to service growth within the Bylaw planning horizon is determined. The additional, or marginal costs required to increase the infrastructure size to service beyond 2041 is considered to provide a post-period benefit.

This approach requires sizing “hypothetical” watermains to service 2041 growth needs through the following criteria:

- Minimum size of 300mm in diameter
- Capacity to meet maximum day demand plus fire flow need in 2041
- Capacity to meet peak hour demand in 2041

Cost estimates are derived from cost valuation models developed for the 2021 Master Plan.

3.5 Grants, Subsidies, and Other Contributions

Any applicable grants, subsidies and other contributions have been deducted from the development-charge-eligible costs in accordance with the requirements of the Act. The grants are primarily from the senior levels of government; however, the amounts vary by project and are not based on a set formula. For the projects included in this Background Study, the anticipated contributions are approximately \$48 million.

3.6 Residential versus Non-Residential Allocation

The residential vs. non-residential allocation is based on incremental flow estimates as set out in Table 3-2. The residential share is 79.38%, and the non-residential share is 20.62%.

**TABLE 3-2
WATER / WASTEWATER DEMAND FORECAST CALCULATIONS:
FLOW SPLIT RESIDENTIAL VERSUS NON-RESIDENTIAL**

Residential Component	
Population Growth (2021 - 2041)	476,277
Non-Residential Component	
Employment Growth (2021 – 2041)	159,802
Residential / Non-Residential Cost Share Ratio	
Proportion	= Flow per capita x growth
Residential	= 195 x 476,277 = 92,874,015 (see notes 1 and 2)
Non-Residential	= 151 x 159,802 = 24,130,102 (see notes 1 and 2)
Total	117,004,117
Residential share 79.38%	
Non-Residential share 20.62%	

Note 1 - Unit consumption rates are population weighted averages based on the projected 2041 water unit rates in the 2021 Water and Wastewater Master Plan.

Note 2 - Population growth figures can be found in the anticipated development section of the background study. These figures exclude populations in institutions. Employment population only includes employment growth that would be generated by new development.

The cost share attributable to non-residential development (shown in Table 3-3) was divided between retail, institutional office and industrial, and hotel uses. This is based on the incremental growth in employment by type.

TABLE 3-3
NON-RESIDENTIAL ALLOCATION

Retail	Industrial/ Office/ Institutional	Hotel
4.42%	16.10%	0.10%

Table 3-4

2022 Development Charge Background Study
Water Services
Growth-related capital costs

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											79.38%	Retail	Industrial/ Office/ Institutional
										4.42%	16.10%	0.10%	
Water Supply													
1	Ballantrae Wells EA	2022-2031	29,000	0	29,000	0	29,000	29,000	0	23,019	1,282	4,669	29
2	Nobleton Water Servicing	2032-2041	7,603,955	0	7,603,955	0	7,603,955	7,603,955	0	6,035,769	336,194	1,224,367	7,625
3	Toronto Water Supply - Cost Shared Works	2022-2041	47,800,000	0	47,800,000	0	47,800,000	300,000	47,500,000	238,130	13,264	48,305	301
4	Peel Water Supply - Cost - Shared Works	2022-2041	16,010,000	0	16,010,000	0	16,010,000	1,595,703	14,414,297	1,266,616	70,551	256,935	1,600
5	Georgina Water System Upgrades	2032-2041	21,807,175	0	21,807,175	0	21,807,175	5,742,675	16,064,500	4,558,347	253,901	924,669	5,759
Subtotal Supply			93,250,131	0	93,250,131	0	93,250,131	15,271,333	77,978,797	12,121,882	675,192	2,458,946	15,313
Water Pumping													
6	Aurora East Booster Pumping Station Upgrades	2022-2031	11,442,000	0	11,442,000	0	11,442,000	11,442,000	0	9,082,283	505,886	1,842,358	11,474
7	North Richmond Hill Pumping Station Decommissioning	2032-2041	1,474,846	0	1,474,846	0	1,474,846	1,474,846	0	1,170,684	65,207	237,475	1,479
8	East Woodbridge Pumping Station Decommissioning	2032-2041	1,258,470	0	1,258,470	0	1,258,470	1,258,470	0	998,932	55,641	202,635	1,262
9	Northeast Vaughan Water Servicing	2022-2031	100,036,000	48,330,000	51,706,000	0	51,706,000	41,786,347	9,919,653	33,168,626	1,847,502	6,728,317	41,902
10	North Markham Water Servicing	2032-2041	112,717,333	0	112,717,333	0	112,717,333	69,306,576	43,410,758	55,013,278	3,064,255	11,159,545	69,498
11	West Park Heights Pumping Station and Watermain	2032-2041	47,948,163	0	47,948,163	0	47,948,163	27,087,055	20,861,108	21,500,813	1,197,601	4,361,480	27,162
Subtotal Water Pumping			274,876,812	48,330,000	226,546,812	0	226,546,812	152,355,294	74,191,519	120,934,615	6,736,092	24,531,811	152,776
Water Storage													
12	Newmarket West Water Servicing	2032-2041	28,574,594	0	28,574,594	0	28,574,594	23,865,216	4,709,379	18,943,422	1,055,154	3,842,708	23,931
13	Stouffville Water Servicing*	2032-2041	4,817,077	0	4,817,077	0	4,817,077	2,618,924	2,198,153	2,078,816	115,791	421,692	2,626
14	West Vaughan Water Servicing	2032-2041	25,024,374	0	25,024,374	0	25,024,374	23,910,758	1,113,615	18,979,573	1,057,168	3,850,041	23,977
15	Vaughan Storage Expansion*	2032-2041	34,884,182	0	34,884,182	0	34,884,182	25,678,483	9,205,699	20,382,734	1,135,324	4,134,675	25,749
16	Holland Landing Storage Expansion	2032-2041	10,343,476	0	10,343,476	3,620,217	6,723,260	4,073,586	2,649,674	3,233,478	180,106	655,917	4,085
17	Queensville Elevated Tank No. 2*	Post 2041	4,447,324	0	4,447,324	0	4,447,324	0	4,447,324	0	0	0	0
Subtotal Storage			108,091,028	0	108,091,028	3,620,217	104,470,811	80,146,967	24,323,844	63,618,023	3,543,542	12,905,034	80,368
Water Linear													
18	York East Water Servicing*	2032-2041	124,871,617	0	124,871,617	36,818,664	88,052,953	68,505,898	19,547,055	54,377,726	3,028,855	11,030,622	68,695
19	Bloomington - Bayview Watermain*	Post 2041	0	0	0	0	0	0	0	0	0	0	0
20	York Peel Feedermain Upgrade	2022-2031	3,396,000	0	3,396,000	0	3,396,000	3,396,000	0	2,695,633	150,148	546,814	3,405
21	Orchard Heights Reservoir Inlet Upgrade	2022-2031	1,554,000	0	1,554,000	0	1,554,000	1,554,000	0	1,233,514	68,707	250,221	1,558
22	Richmond Hill Langstaff Gateway Provincial Urban Growth Centre Water Servicing	2022-2031	3,550,000	0	3,550,000	0	3,550,000	3,550,000	0	2,817,873	156,956	571,611	3,560
23	Eagle to Kirby Pumping Station Watermain	2022-2031	11,948,364	0	11,948,364	0	11,948,364	11,948,364	0	9,484,218	528,274	1,923,891	11,981
24	Green Lane Leslie Street Watermain	2026-2036	30,992,121	0	30,992,121	0	30,992,121	24,194,950	6,797,170	19,205,155	1,069,733	3,895,801	24,262
25	East Gwillimbury Water Servicing*	2022-2031	35,144,722	0	35,144,722	0	35,144,722	35,144,722	0	27,896,723	1,553,855	5,658,902	35,242
26	Yonge Street Watermain*	Post 2041	0	0	0	0	0	0	0	0	0	0	0
Subtotal Water Linear			211,456,825	0	211,456,825	36,818,664	174,638,161	148,293,935	26,344,225	117,710,842	6,556,527	23,877,862	148,703

Table 3-4

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										79.38%	4.42%	16.10%	0.10%
Subtotal Planning and Studies													
27	Water for Tomorrow Program	2022-2041	19,915,000	0	19,915,000	0	19,915,000	19,915,000	0	15,807,871	880,503	3,206,656	19,970
28	Water Master Plan Update	2022-2041	4,810,000	0	4,810,000	0	4,810,000	4,810,000	0	3,818,020	212,665	774,492	4,823
29	Water System Capacity Assessment	2022-2041	14,118,000	0	14,118,000	0	14,118,000	14,118,000	0	11,206,403	624,200	2,273,240	14,157
Subtotal Planning and Studies			38,843,000	0	38,843,000	0	38,843,000	38,843,000	0	30,832,294	1,717,368	6,254,388	38,950
Outstanding Credits													
30	Northeast Vaughan Water Servicing	2022-2031	50,750,000	0	50,750,000	0	50,750,000	50,750,000	0	40,283,679	2,243,812	8,171,619	50,890
Subtotal Outstanding Credits			50,750,000	0	50,750,000	0	50,750,000	50,750,000	0	40,283,679	2,243,812	8,171,619	50,890
Total			777,267,795	48,330,000	728,937,795	40,438,881	688,498,915	485,660,530	202,838,385	385,501,335	21,472,534	78,199,660	487,001

*These projects will have expenditures beyond 2041, not currently captured in the 2022 DC bylaw

4 WASTEWATER: CAPITAL FORECASTS AND DC-RECOVERABLE COSTS

4.1 Program Description

The wastewater capital program (Table 4-1) consists of infrastructure and initiatives required to support growth as recommended by the 2021 York Region Water and Wastewater Master Plan Update (2021 Master Plan) and other studies. The program includes several projects consisting of a combination of the following components:

- Wastewater Treatment including Water Resource Recovery Facilities, Duffin Water Pollution Control Plant and cost-shared projects with the Region of Peel
- Sewage pumping stations and forcemains
- Trunk sewers and flow control management systems
- Planning and studies including Inflow and Infiltration Reduction, Master Plans and Capacity Assessments

4.2 Level of Service

When another Act, or Provincial Agency, requires a higher level of service than what is permitted under section 5 (1)4 of the Act, development charges may be established based on the prescribed level of service as required under another Act. York Region's wastewater service is provided in accordance with provincial design guidelines and requirements and recognizes engineering design standards.

Through the Master Plan, design unit rates are developed to assist in identifying infrastructure needs over the long term. Water design unit rates recommended by the 2021 Master Plan (see Section 4.2) were also used in the development of the wastewater program. Consistent with the 2016 Master Plan, the Regional 25-year design storm was used to size the wastewater system, with inflow and infiltration reduction considered through the recalibration of the Regional wastewater hydraulic model using measured flows. For wastewater treatment (i.e., water resource recovery facilities) capacity is evaluated individually based on both hydraulic and treatment capabilities.

4.3 Benefit to Existing Development Deduction

The methodology to determine benefit to existing development deduction for wastewater assets is the same as for water assets. The methodology is based on the principle that growth should pay for growth. Therefore, when a project is required to meet the increase in need for service arising from development, no benefit to existing is allocated. In cases where benefit to existing is considered, it is addressed on a project-by-project basis.

1. In cases of **enhancements and/or modification of the existing treatment processes** to meet statutory requirements, the following methodology applies:
 - a) No benefit to existing applies where a growth project requires enhancement and/or modification of the existing treatment process to meet stringent regulatory requirements as part of the project approval requirements. Existing residents should not be asked to pay for improvements they don't need if growth does not occur
 - b) Where it can be demonstrated that enhancement of treatment process is required regardless of the growth project, then a portion of the project can be considered benefit to existing
2. In the case of **enhancements for system security**:
 - a) No benefit to existing applies to growth projects which add system security
 - b) If a portion of the project is triggered solely by the need to provide system redundancy, and is not required for growth, then the corresponding cost will be considered benefit to existing and is not included in the development charges rate calculation
3. In the case of **growth projects replacing/decommissioning of existing facilities**, the following methodology applies:
 - a) If the replacement year of an existing facility is within 10 years of the timing of the growth project, the two projects can be combined. As such, where a growth project replaces a facility within 10 years of the end of its useful life as identified in a completed condition assessment, the Region's Asset Management Plan or established under the Public Sector Accounting Board (PSAB) reporting a portion of the cost can be considered as benefit to existing and is calculated as follows:

$$BTE = \frac{C_o}{C_u} x P$$

Where:

C_o is the capacity of the existing facility to be replaced

C_u is the total capacity of the new facility

P is the project cost within the DC period incl. decommissioning of the existing facility

- b) Where a growth project advances the replacement of an existing facility by more than 10 years from the end of its expected useful life, no benefit to existing applies, and the replacement cost would be fully attributable to growth because:
 - The existing facility is still sound, and the service received by the residents will not noticeably and tangibly be increased by the new facility
 - The time value of money for improvements is higher when payments are advanced
 - Funds collected to cover the specific facility replacement have not yet built up to the target amount.

4.4 Post Period Benefit Deduction

Where infrastructure is sized to accommodate growth beyond the Bylaw planning horizon, the additional cost of providing the oversized infrastructure has been recognized as post period benefit and calculated on a project-by-project basis, as follows:

1. **In the case of discrete assets**, such as treatment facilities and pumping stations, a pro-rated capacity method is used. This method is based on pro-rating the cost of capacity attributable to growth beyond the planning horizon (post 2041), excluding base costs that would be required, regardless of the planning period or capacity of the project. Such post-period costs would be eligible for recovery in subsequent development charge bylaws:

$$PPB = \frac{C_u - F_{pp}}{C_u - C_e} \times P_{net}$$

Where:

C_u is the total capacity immediately after new facility completion in the service area up to 2051

F_{pp} is the estimated flows in the service area in 2041)

C_e is the existing capacity before commissioning the new facility

P_{net} is the cost of the project **excluding certain base costs**, such as:

- Environmental Assessment costs which are expected to be generally the same for a facility sized for 2041 or for other years, i.e., 2051
- Supervisory Control and Data Acquisition System costs are expected to be generally the same for facility sized for 2041 or for other years
- For a pumping facility, normally at least one pump is required for standby. If a standby pump is required for the new facility, the hypothetical cost of one-pump is considered base cost and calculated as:

$$\text{Base Cost} = P / \text{Number of pumps}$$

Where:

P is the cost of the project excluding environmental assessment and SCADA system costs

- Other fixed costs where applicable on a project-by-project basis

No post period benefit will apply for decommissioning projects in general, as there is no benefit to growth beyond 2041.

2. The determination of post period benefit **for the Peel wastewater cost-shared projects** is based on the estimated 2041 flow to be diverted to Peel for treatment

3. **In the case of linear assets**, a marginal cost approach is used. The cost of a project (including planning, design, construction, contingency and project management) required to service growth within the Bylaw planning horizon is determined. The additional, or marginal costs required to increase the infrastructure size to service beyond 2041 is considered to provide a post-period benefit.

This approach requires sizing of “hypothetical” sanitary sewers to service 2041 growth needs through the following criteria:

- Minimum size of 450mm in diameter
- Capacity to convey the peak wet weather flow in 2041 under a 25-year storm event

Cost estimates are derived from cost valuation models developed for the 2021 Master Plan.

4.5 Grants, Subsidies and Other Contributions

Any applicable grants, subsidies and other contributions have been deducted from the development charges eligible costs in accordance with the requirements of the Act. The grants are primarily from the senior levels of government; however, the amounts vary by project and are not based on a set formula. For the projects included in the 2022 Development Charges Background Study, the anticipated contributions are approximately \$234 million.

4.6 Residential versus Non-Residential Allocation

The residential vs. non-residential allocation is based on incremental flow estimates as set out in Table 3-1. The residential share is 79.38%, and the non-residential share is 20.62% (see Table 3-2).

The cost share attributable to non-residential development (shown in Table 3-3) was divided between retail, institutional office and industrial, and hotel uses. This is based on the incremental growth in employment by type.

Table 4-1

2022 Development Charges Background Study
Wastewater Services
Growth related capital costs

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										79.38%	4.42%	16.10%	0.10%
Wastewater Treatment													
1	Keswick Wastewater Servicing	2022-2041	41,820,000	0	41,820,000	0	41,820,000	7,548,000	34,272,000	5,991,354	333,720	1,215,357	7,569
2	Duffin Creek Water Pollution Control Plant Phase 3 Expansion	2022-2031	5,050,000	1,919,000	3,131,000	0	3,131,000	3,131,000	0	2,485,285	138,431	504,145	3,140
3	Duffin Creek Water Pollution Control Plant Stages 1 & 2 Upgrades	2022-2031	30,000	0	30,000	0	30,000	30,000	0	23,813	1,326	4,831	30
4	Duffin Creek Water Pollution Control Plant Lab Expansion	2022-2031	2,414,000	0	2,414,000	0	2,414,000	2,414,000	0	1,916,154	106,730	388,695	2,421
5	Holland Landing Lagoon Decommissioning	2022-2031	1,100,000	1,100,000	0	0	0	0	0	0	0	0	0
6	Upper York Water Reclamation Centre	2022-2031	549,938,000	0	549,938,000	0	549,938,000	549,938,000	0	436,522,674	24,314,437	88,549,433	551,456
7	Duffin Creek Water Pollution Control Plant Outfall Effluent Strategy	2022-2031	12,341,000	2,468,000	9,873,000	0	9,873,000	9,873,000	0	7,836,862	436,515	1,589,722	9,900
8	Duffin Creek Water Pollution Control Plant Growth Expansions*	2026-2041	395,988,800	79,198,800	316,790,000	0	316,790,000	97,779,317	219,010,683	77,614,002	4,323,122	15,744,144	98,049
9	Duffin Creek Water Pollution Control Plant Stages 1 & 2 Chlorine Contact Chamber Expansion	2022-2031	15,480,000	1,549,000	13,931,000	0	13,931,000	13,931,000	0	11,057,969	615,932	2,243,130	13,969
10	Sutton Wastewater Servicing	2032-2041	56,323,442	0	56,323,442	0	56,323,442	42,203,242	14,120,200	33,499,544	1,865,934	6,795,445	42,320
11	Upper York Servicing Infrastructure Expansions 1 and 2*	2032-2041	223,236,780	0	223,236,780	0	223,236,780	0	223,236,780	0	0	0	0
12	Nobleton Wastewater Servicing	2032-2041	21,969,060	0	21,969,060	0	21,969,060	21,969,060	0	17,438,316	971,319	3,537,395	22,030
Subtotal Wastewater Treatment			1,325,691,082	86,234,800	1,239,456,282	0	1,239,456,282	748,816,619	490,639,663	594,385,973	33,107,467	120,572,296	750,883
Wastewater Pumping													
13	Queensville Holland Landing Sharon York Durham Sewage System Connection	2022-2031	2,120,000	0	2,120,000	0	2,120,000	2,120,000	0	1,682,786	93,732	341,356	2,126
14	Leslie Street Sewage Pumping Station Upgrade	2022-2031	10,000	0	10,000	0	10,000	10,000	0	7,938	442	1,610	10
15	East Queensville Sewage Pumping Station and Forcemain	2022-2031	16,315,480	0	16,315,480	0	16,315,480	14,000,400	2,315,080	11,113,056	619,000	2,254,304	14,039
16	Leslie Street Sewage Pumping Station Expansion*	2031-2041	9,507,541	0	9,507,541	0	9,507,541	5,143,071	4,364,470	4,082,401	227,391	828,123	5,157
17	East Gwillimbury Sewage Pumping Stations Expansion	2032-2041	7,036,778	0	7,036,778	0	7,036,778	4,820,828	2,215,950	3,826,614	213,144	776,236	4,834
18	King City Wastewater Servicing*	2026-2041	40,141,675	0	40,141,675	0	40,141,675	4,622,995	35,518,680	3,669,581	204,397	744,381	4,636
Subtotal Wastewater Pumping			75,131,474	0	75,131,474	0	75,131,474	30,717,294	44,414,180	24,382,376	1,358,105	4,946,010	30,802
Wastewater Linear													
19	West Vaughan Sewage Servicing	2022-2041	389,253,000	0	389,253,000	0	389,253,000	358,206,110	31,046,890	284,332,214	15,837,385	57,677,316	359,195
20	Richmond Hill Langstaff Gateway Provincial Urban Growth Centre Wastewater Servicing	2022-2031	15,178,000	0	15,178,000	0	15,178,000	12,267,950	2,910,050	9,737,895	542,403	1,975,350	12,302
21	Northeast Vaughan Wastewater Servicing	2022-2031	171,626,000	99,374,000	72,252,000	0	72,252,000	63,873,100	8,378,900	50,700,363	2,824,025	10,284,663	64,049
22	Primary Trunk Sewer	2022-2031	228,596,000	45,722,000	182,874,000	0	182,874,000	136,436,310	46,437,690	108,298,650	6,032,266	21,968,582	136,813
23	Newmarket Diversion Sewer	2032-2041	29,797,687	0	29,797,687	0	29,797,687	20,196,997	9,600,690	16,031,711	892,971	3,252,062	20,253
24	North Markham Trunk Sewer	2032-2041	43,204,641	0	43,204,641	0	43,204,641	34,130,001	9,074,640	27,091,271	1,508,991	5,495,514	34,224

Table 4-1

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										79.38%	4.42%	16.10%	0.10%
25	Yonge Street Sewer Twinning	2022-2031	65,934,090	0	65,934,090	0	65,934,090	56,399,910	9,534,180	44,768,391	2,493,612	9,081,351	56,556
26	York Durham Sewage System Force-main Twinning	2022-2031	2,096,000	0	2,096,000	0	2,096,000	2,096,000	0	1,663,736	92,671	337,492	2,102
27	York Durham Sewage System Conveyance Expansion*	Post 2041	2,244,858	0	2,244,858	0	2,244,858	0	2,244,858	0	0	0	0
28	York Durham Sewage System Conveyance Optimization	2022-2031	6,560,427	0	6,560,427	0	6,560,427	6,560,427	0	5,207,451	290,056	1,056,341	6,579
29	York Durham Sewage System Interim Servicing	2022-2031	25,450,000	3,100,000	22,350,000	0	22,350,000	22,350,000	0	17,740,694	988,162	3,598,733	22,412
Subtotal Wastewater Linear			979,940,703	148,196,000	831,744,703	0	831,744,703	712,516,804	119,227,898	565,572,375	31,502,542	114,727,404	714,483
Wastewater Cost-Shared													
30	Peel System Cost Shared Works	2022-2041	8,215,000	0	8,215,000	0	8,215,000	8,215,000	0	6,520,796	363,210	1,322,756	8,238
Subtotal Cost-Shared			8,215,000	0	8,215,000	0	8,215,000	8,215,000	0	6,520,796	363,210	1,322,756	8,238
Planning and Studies													
31	York Durham Sewage System Wastewater Master Plan Update	2022-2041	4,816,000	0	4,816,000	0	4,816,000	4,816,000	0	3,822,782	212,930	775,458	4,829
32	Inflow & Infiltration Reduction	2022-2041	69,668,000	0	69,668,000	0	69,668,000	69,668,000	0	55,300,164	3,080,235	11,217,741	69,860
33	Wastewater System Capacity Studies	2022-2041	39,653,000	0	39,653,000	0	39,653,000	39,653,000	0	31,475,246	1,753,180	6,384,812	39,762
Subtotal Planning and Studies			114,137,000	0	114,137,000	0	114,137,000	114,137,000	0	90,598,192	5,046,345	18,378,011	114,452
Outstanding Credits													
34	York Durham Sewage System (YDSS)	2022-2031	41,961,183	0	41,961,183	0	41,961,183	41,961,183	0	33,307,405	1,855,232	6,756,469	42,077
35	Sharon Trunk Sewer	2022-2031	14,378,667	0	14,378,667	0	14,378,667	14,378,667	0	11,413,312	635,725	2,315,212	14,418
36	Sutton Water Resource Recovery Facility Expansion	2022-2031	14,308,868	0	14,308,868	0	14,308,868	14,308,868	0	11,357,908	632,639	2,303,973	14,348
37	Northeast Vaughan Wastewater Servicing	2022-2031	101,500,000	0	101,500,000	0	101,500,000	101,500,000	0	80,567,357	4,487,625	16,343,238	101,780
Subtotal Outstanding Credits			172,148,717	0	172,148,717	0	172,148,717	172,148,717	0	136,645,983	7,611,220	27,718,891	172,624
Total			2,675,263,976	234,430,800	2,440,833,176	0	2,440,833,176	1,786,551,435	654,281,741	1,418,105,696	78,988,890	287,665,368	1,791,482

*These projects will have expenditures beyond 2041, not currently captured in the 2022 DC bylaw

5 ROADS: CAPITAL FORECASTS AND DC-RECOVERABLE COSTS

5.1. Program Description

The Roads capital program is based on York Region's Transportation Master Plan and Council-endorsed 10-year Capital Plan, and includes the following service components:

- Growth structures (including road/rail grade separations)
- New Interchanges
- Midblock crossings
- Growth new infrastructure (including missing links)
- Growth widening to 4 or to 6 lanes
- Road improvements to support Transit
- Reconstruction
- Environmental assessment, design, survey and property acquisition for future capital projects
- Intersection and miscellaneous capital
- Sustainable travel options (formally transportation demand management)
- Active Transportation programs and initiatives
- Growth Planning

Table 5-4 to this section details the growth-related capital projects and cost calculation¹.

Consistent with previous DC bylaws, York Region proposes to maintain a transportation program that accommodates all improvements within York Region's right of way, which includes road widenings, road structural capacity improvements, road volume capacity improvements, high-occupancy-vehicle lanes and dedicated transit lanes.

This multi-modal division of the transportation corridors is consistent with the Regional Official Plan, which states that:

- The hierarchy of streets supports York Region's proposed urban structure. These corridors are to accommodate and provide connectivity for all modes of transportation including active transportation, transit users, automobile use and the movement of goods, public and private utilities, and on-street parking where appropriate

¹ Table 5-5 provides a list of projects contingent on certain trigger events to proceed

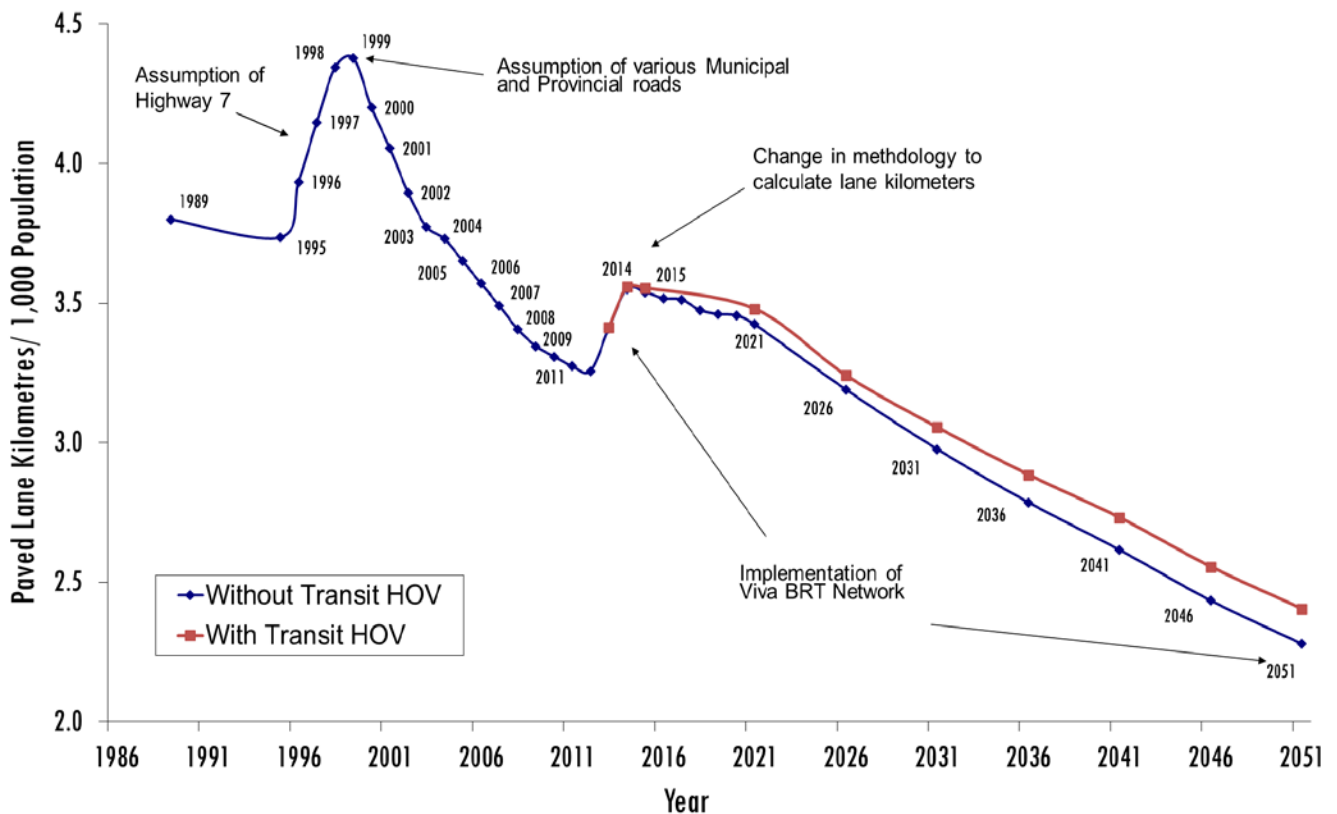
- To implement transit improvements on urban streets, which may include transit lanes, high-occupancy vehicle lanes, queue jump lanes, cycling facilities and other transit signal priority needs to support an integrated mobility network
- To require transit or high-occupancy vehicle lanes and cycling facilities within the right-of-way of existing and future six-lane Regional streets based on established thresholds and criteria

The project horizons identified in the background study are for fiscal planning purposes. To meet the changing needs of where growth is occurring and project commitments by third parties, including the Province and Metrolinx, the phasing of project will be evaluated annually through the Regional capital budgeting process. .

5.2. Level of Service

As depicted in Figure 5-1, the proposed transportation improvement program anticipates a declining road-kilometre-per-capita level of service over the long term.

FIGURE 5-1
HISTORICAL LEVEL OF SERVICE
Paved Lane Kilometres per Capita
1989 - 2051



Note: 2022 to 2051 paved lane kilometers based on Draft 2022 Transportation Master Plan and therefore includes linear kilometers not currently funded within this Development Charges Bylaw

The network of roads, transit and active transportation improvements identified in the 2022 Transportation Master Plan play a foundational role in allowing people and goods to travel safely, conveniently and reliably throughout the Region in environmentally and fiscally sustainable ways. Transportation Master Plan integrates transportation and land-use policies outlined in the Regional Official Plan to support growth in the Region. Network improvements will be phased in over the next 30 years to meet the evolving needs of York Region's growing population and employment.

History has demonstrated that simply expanding the road network will not solve congestion issues. The Region will ensure the most effective use of road space and financial resources over the long term by designing and operating Regional streets to maximize capacity to move people. This principle will support the Region's ability to meet the mobility needs of today's users while ensuring corridors can adapt in the future to meet the changing travel needs, including High Occupancy Vehicle / Transit lanes and new technologies including autonomous and connected vehicles and supporting the development of a finer grid network.

To maintain an acceptable level of transportation service, some capacity deficiencies in the road network need to be supplied through the implementation of environmentally-friendly travel options, including walking and cycling, and transit infrastructure.

The inter-jurisdictional nature of mobility in the GTHA will continue to increase the complexity of service delivery in York Region. Further, the success of the Region's Transportation Master Plan will be heavily dependent on leveraging successful partnerships with other levels of government.

5.3. Benefit to Existing Development Deduction

Consistent with previous DC bylaws, the benefit to existing (BTE) deduction will be assigned to projects based on a standard categorization as defined in Table 5-1. The table is a general guideline to the proportion of the capital cost attributed to development in each case. Projects may deviate from these classifications based on an individual assessment.

York Region has historically applied a minimum 10% BTE to all road projects as a deduction for elements such as re-paving existing lanes, sub-base reconstruction, and rehabilitation of existing structures. This standard reduction is maintained. However, the base reduction would not apply to the construction of new or missing arterial road links; including mid-block crossings and interchange ramp extensions. When a project would not otherwise be constructed if there was no new growth, it is assigned 0% BTE.

The Region's population and employment growth between 2022 and 2041 (mid-year) is forecasted to be at approximately 27%. It is the position of York Region, that the maximum BTE shall not exceed 73% of the total Regional contribution to a project.

**TABLE 5-1
PROJECT CATEGORIZATION FOR BENEFIT TO EXISTING**

Project Category	Benefit to Existing	Proportion Attributed to Development
NEW REGIONAL INFRASTRUCTURE		
New Arterial Road Link	0%	100%
<p>New arterial roads are identified to support greenfield and provincially designated development areas. Typically, in many developing communities the existing arterial road functions as a main street through the hamlet. To service the transportation needs of these new communities, the new arterial roads are constructed to serve as a major collector as well as an arterial road and traverse the community. In many incidences the new arterial road is designed as a by-pass to distribute traffic away from existing nodes and villages which will negatively impact the existing development by increasing travel distance.</p>		
Missing Arterial Road Link	0%	100%
<p>The construction of a missing arterial road link would benefit existing development in a redistribution of arterial travel. However, as the demand for the missing arterial road link is needed to support future population and employment growth, the overall level of service in the corridor will be negatively impacted.</p>		
Grade Separation; New Structure	10% to 73%	27% to 90%
<p>BTE for construction of new grade separated rail crossings of arterial roads will be based on the difference in the rail exposure index from the time when the need was identified (i.e. in the TMP) and the time of construction. If the increase in the rail exposure index is greater than 100%, then all of the costs will be attributed to growth. If the increase in the rail exposure index is less than 100%, then the growth share will be proportionate to the increase in rail exposure and the benefit to existing will be calculated as (1-rail exposure increase).</p>		
CAPACITY IMPROVEMENTS		
Road Widening; Urban Area	10%	90%
<p>Capital improvement, including road widenings and intersection improvements, within the urban boundary to support proposed growth. May include continuous left turn lanes, widenings from 2 to 4 lanes and widenings from 4 to 6 lanes.</p>		
Road Widening; Rural Area	10%	90%
<p>Capital improvement, including road widenings and intersection improvements, within rural areas to support increased growth and densities in the towns and villages outside the main urban areas. May include continuous left turn lanes, widenings from 2 to 4 lanes and widenings from 4 to 6 lanes.</p>		
Road Widening; HOV Lanes	10%	90%
<p>Arterial road widenings to support multi-passenger vehicle trips. Improvements along these corridors are to increase the person trip capacity of the corridor through lanes to support car pooling and/or transit.</p>		
Grade Separation; Widening	10% to 73%	27% to 90%
<p>The benefit to existing for the road widening project will apply to the grade separation when being constructed concurrently. As a minimum, a 10% benefit to existing deduction will be applied to accommodate the cost of rehabilitating the existing structure.</p>		

Project Category	Benefit to Existing	Proportion Attributed to Development
<p>Jog Elimination / Intersection Improvement</p> <p>Major intersection improvements including jog elimination of regional intersections to support proposed growth. Benefit to existing arises from capacity and safety increases and geometric improvements, however in many cases, the addition of new signals or modifications to existing signals to accommodate for example, protected phasing, may reduce the level of service for existing development.</p>	10%	90%
CONTRIBUTION TO INFRASTRUCTURE		
<p>Mid-Block Crossing</p> <p>To support the Regional share for new mid-block crossings of 400 series highways to support new growth areas.</p>	0%	100%
<p>400-Series Interchange - New</p> <p>To support the Regional share for a new interchange in new growth areas. The benefit of an added interchange to existing users is normally offset by increased traffic congestion created by proposed growth.</p>	0%	100%
<p>400-Series Interchange Improvements</p> <p>To support the Regional share for interchange improvements in new growth areas. The benefit of an added interchange to existing users is often offset by increased traffic congestion created by proposed growth.</p>	10%	90%
<p>Interchange Ramp Extensions</p> <p>To support the Regional share for new interchange ramp extensions from 400 series highways to new growth areas.</p>	0%	100%
<p>Road Improvements to Support Transit</p> <p>To support the Regional share for new road lanes to support transit, including but not limited to travel lanes, intersection improvements, utilities, and boulevard improvements.</p>	18%	82%
MISCELLANEOUS POLICIES AND PROGRAMS		
<p>Reconstruction to Regional standard</p> <p>Road improvements, road structural capacity improvements and road volume capacity improvements to support increased demand related to growth within or supporting existing or urban growth areas. May include, but not limited to, reconstruction of existing general-purpose lanes, structural design, intersection improvements, turn lanes, geometric improvements, and improvements to shoulder widths.</p>	73%	27%
<p>Active and Sustainable Transportation</p> <p>May include, but not limited to, regionally-owned active and sustainable transportation facilities within regional rights of way, dedicated cycling corridors, partnership programs, research and planning studies, and initiatives to support active and sustainable transportation.</p>	10%	90%
<p>Programs and Studies</p> <p>May include, but not limited to, Master Plans, transportation planning studies, sustainable travel options (i.e., transportation demand management), and other programs and initiatives required to support planned growth.</p>	10%	90%

Project Category	Benefit to Existing	Proportion Attributed to Development
MISCELLANEOUS CAPITAL		
Include general road improvements, streetscaping, urbanization and conversion of gravel, hard and surface treated roads to Regional standard to support increased demand related to growth		
■ Urbanization	10%	90%
■ Intersection and Miscellaneous Capital	10 to 73%	27% to 90%
■ Streetscaping	20%	80%
■ Forestry	0%	100%
■ Remaining Gravel Roads	73%	27%
■ Remaining Surface Treated Roads	73%	27%

5.4. Post Period Benefit Deduction

Post period benefit deduction refers to the cost of oversized infrastructure capacity which is not required by development anticipated within the planning period, and will clearly benefit development in a subsequent period. York Region’s methodology for undertaking the post period benefit analysis is as follows:

1. Consistent with the Act, where maintaining a fixed level of service is the standard measure, the Region will establish an average level of service (LOS) for the past 10 years, referred hereafter as “Base”. The objective is to maintain the same traffic level of service as the Base for the DC Bylaw planning horizon, referred hereafter as “Future”. As described in the 2017 Development Charges Bylaw, York Region proposes that volume-to-road capacity (V/C) ratio for 2021 be used to represent the average LOS “Base”, and 2041 V/C ratio to represent the “Future”.

The total cost of the capital projects identified as required by 2041 will be included (2022 to 2041) in the PPB analysis, while project costs identified in the Transportation Master Plan as required post 2041 have been assigned a post period benefit of 100%.

2. To maintain theoretical consistency in the analysis, traffic volumes on the Regional road system were modeled for the Base and Future, and V/C ratios for three scenarios computed:
 - a) Future volumes on Base network
 - b) Base volumes on Base network
 - c) Future volumes on Future network
3. Volume to capacity (V/C) is a common transportation engineering measure of the ratio between the number of vehicles on the road and the estimated capacity of the road. If the ratio equals 1.0, the section of road is considered to be at capacity. For each scheduled improvement in the roads section of the Development Charges Bylaw, the morning peak period/ peak demand is tested against two thresholds as follows:

Threshold 1:

Volumes_{Future} / Capacity_{Base} are less than (0.80 or 0.90)

The purpose of Threshold 1 is to ensure that specific projects identified in the Transportation Master Plan are required to support development identified within the planning horizon. In other words, where the future demand compared to the base capacity exceeds a volume to capacity ratio of 0.90 in an urban environment and 0.80 in a rural setting, the project is necessary to maintain the historical level of service. In the case of a road widening, the increase is measured in terms of the “minimum” number of lanes that need to be added to the road system in order to maintain the quality of the base network.

Threshold 2:

$(V/C)_{Future} < (V/C)_{Base}$

The purpose of Threshold 2 is to ensure that the quality of the base road network, defined as Level of Service, has not been improved by the scheduled improvement. In other words, there may be a potential for PPB if the quality of the road segment, defined as the Volume / Capacity of the road project, improves over time.

A Post Period Benefit will be considered for projects that satisfy both thresholds. The amount of Post Period Benefit will be calculated as defined in Step 4.

4. For projects identified in Step 3 for consideration of a Post Period Benefit, a reduction in the project shall be calculated as:

$$\frac{(V/C)_{Future} - (V/C)_{Base}}{(V/C)_{Base}}$$

The reduction shall be calculated for both directions and the lower of the two reductions utilized.

5. If a reduction is applied to a specific project to accommodate PPB, it is anticipated that this reduction will be considered for recovery in development charges calculations in a period beyond the existing Bylaw horizon.

This PPB methodology is not applicable to grade separations, mid-block crossings, new Regional roads, programs and studies and miscellaneous capital expenditures.

However, where the Transportation Master Plan identifies a project need beyond the planning horizon of this Background Study, the project will be assigned a 100% post-period benefit deduction.

Further, the Background Study has historically identified a growth component in major reconstruction capital projects. These improvements provide additional lane capacity to support growth within the planning horizon of the background study. As such, no post period benefit is applicable.

5.5. Grants, Subsidies and Other Contributions

Any applicable grants, subsidies and other contributions have been deducted from the DC-eligible costs in accordance with the requirements of the Act. The grants are primarily from other levels of government; however, the amounts vary by project and are not based on a set formula. For the projects included in the 2022 DC Background Study, the applicable grants/subsidies are approximately \$1.8 billion.

5.6. Residential versus Non-Residential Allocation

5.6.1 Residential vs. Non-residential

The system of network improvements identifies infrastructure requirements needed to support a multi-modal network for all trip purposes and for all trips originating from or destined to York Region. This includes additional transit infrastructure, roads infrastructure and a system of sidewalks and trails to further enable active transportation.

The residential vs. non-residential allocation is determined by using net incremental population and employment growth. This approach is used for both Roads and Transit, including Toronto-York Spadina Subway Extension and Yonge North Subway Extension (Table 5-2 below).

TABLE 5-2
INCREMENTAL GROWTH FOR POPULATION AND EMPLOYMENT

	2022 to mid-2041	%
Gross population growth	476,277	74.88
Employment growth requiring new space	159,802	25.12
Total	636,079	100.00

5.6.2 Non-residential Cost Allocation

For the purpose of rate calculation, the non-residential share of the total capital cost is further allocated between retail, IOI and hotel uses. The cost allocation is determined based on the share of trips generated using the Institute of Transportation Engineers (ITE) Trip Generation rates.

Trip generation rates are used by transportation professionals for estimating the number of trips generated by specific types of developments or land uses. A trip generation rate is the number of trips (vehicle trips, pedestrian trips, and/or transit trips) that can be expected to access and exit a site over a given period of time, expressed over an independent variable, such as trips per 1000 sq. ft. gross floor area, or per hotel suite. For each non-residential sector, an average trip generation rate was developed based on a sample of land use categories.

To capture the travel characteristics of all land use categories, an average of the AM peak hour and PM peak hour trip generation rate was estimated. Furthermore, consistent with industry practices, retail trip rates were further reduced by 20% to accommodate “pass-by” trips. Pass-by trips are defined as trips that would have travelled on a street adjacent to a retail centre even if the retail was not constructed.

Where data is available, the peak of the land use (the trips generated for each land use during the peak period of the land use) was used in the analysis.

Using this methodology, the non-residential share of the costs is allocated to the three land uses as in Table 5-3 below. This approach is used for Roads and Transit services, including Toronto-York Spadina Subway Extension and Yonge North Subway Extension. While the methodology is consistent, the split differs slightly depending on the planning horizon of the service.

TABLE 5-3
NON-RESIDENTIAL LAND USE (BASED ON TRIP GENERATION)

Non-residential Land Use	Allocation of DC-Eligible Costs
Retail	35.60%
Industrial, Office, Institutional	63.74%
Hotel	0.66%
Total	100.00%

Table 5-4

2022 Development Charges Background Study
Roads
Growth related capital costs

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											74.88%	Retail	Industrial/ Office/ Institutional
										8.94%	16.01%	0.17%	
Growth Structures (Grade Separations)													
1	Barrie GO - Wellington Street East of Yonge Street (YR Share)	2022-2031	6,762,000	0	6,762,000	676,200	6,085,800	6,085,800	0	4,556,859	544,271	974,576	10,095
2	Barrie GO - Elgin Mills East of Yonge Street	2022-2031	57,399,000	5,444,000	51,955,000	5,195,500	46,759,500	46,759,500	0	35,012,065	4,181,837	7,488,035	77,563
3	Barrie GO - Rutherford Road East of Keele Street	2022-2031	220,000	0	220,000	22,000	198,000	198,000	0	148,256	17,708	31,708	328
4	Stouffville GO - Steeles Avenue - Kennedy Road to Midland Ave (YR Share)	2022-2031	12,045,000	0	12,045,000	1,204,500	10,840,500	10,840,500	0	8,117,031	969,497	1,735,990	17,982
Subtotal Growth Structures (Grade Separations)			76,426,000	5,444,000	70,982,000	7,098,200	63,883,800	63,883,800	0	47,834,210	5,713,313	10,230,308	105,968
New Interchanges													
5	Highway 404 Interchange at Doane Road	2032-2041	6,282,000	0	6,282,000	0	6,282,000	6,282,000	0	4,703,767	561,817	1,005,995	10,420
6	Highway 404 Interchange at St. John's Sideroad	2042-2051	57,295,875	0	57,295,875	0	57,295,875	0	57,295,875	0	0	0	0
7	Highway 400 Interchange at King-Vaughan Road or Kirby Road	2042-2051	57,295,875	0	57,295,875	0	57,295,875	0	57,295,875	0	0	0	0
Subtotal New Interchanges			120,873,750	0	120,873,750	0	120,873,750	6,282,000	114,591,750	4,703,767	561,817	1,005,995	10,420
Midblock Crossings													
8	Cedar Avenue Extension - Langstaff Road to High Tech Road	2022-2031	6,902,000	1,860,000	5,042,000	0	5,042,000	5,042,000	0	3,775,293	450,921	807,422	8,364
9	Highway 404 north of Doane Road	2042-2051	32,780,358	21,853,572	10,926,786	0	10,926,786	0	10,926,786	0	0	0	0
10	Highway 404 north of Elgin Mills Road	2042-2051	62,077,293	41,384,862	20,692,431	0	20,692,431	0	20,692,431	0	0	0	0
11	Highway 404 North of Major Mackenzie Drive	2032-2041	41,194,000	27,464,000	13,730,000	0	13,730,000	13,730,000	0	10,280,599	1,227,914	2,198,713	22,775
12	Highway 404 North of 16th Avenue	2022-2031	68,584,000	54,725,000	13,859,000	0	13,859,000	13,859,000	0	10,377,190	1,239,450	2,219,371	22,989
13	Highway 404 North of Highway 7 (Regional Share)	2022-2031	216,000	0	216,000	0	216,000	216,000	0	161,734	19,318	34,590	358
14	Highway 400 South of Teston Road (Regional Share)	2022-2031	8,666,000	0	8,666,000	0	8,666,000	8,666,000	0	6,488,832	775,025	1,387,767	14,375
15	Highway 400 north of Kirby Road	2042-2051	66,521,568	44,347,712	22,173,856	0	22,173,856	0	22,173,856	0	0	0	0
16	Highway 427 North of Langstaff Road (Regional Share)	2022-2031	2,287,000	0	2,287,000	0	2,287,000	2,287,000	0	1,712,435	204,533	366,239	3,794
Subtotal Midblock Crossings			289,228,219	191,635,146	97,593,073	0	97,593,073	43,800,000	53,793,073	32,796,083	3,917,160	7,014,102	72,654

Table 5-4

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										74.88%	8.94%	16.01%	0.17%
Growth New Infrastructure (Missing Links)													
17	Highway 404 Northbound Off-Ramp Extension at Highway 7	2022-2031	216,000	0	216,000	0	216,000	216,000	0	161,734	19,318	34,590	358
18	Langstaff Road - Jane Street to Keele Street	2022-2031	783,000	0	783,000	0	783,000	783,000	0	586,286	70,026	125,389	1,299
19	Teston Road - Keele Street to Dufferin Street	2022-2041	156,056,000	0	156,056,000	0	156,056,000	156,056,000	0	116,849,899	13,956,539	24,990,702	258,861
20	Donald Cousens Parkway - Major Mackenzie Drive to Highway 48 (Inc. Grade Separation)	2032-2041	22,590,000	0	22,590,000	0	22,590,000	22,590,000	0	16,914,692	2,020,289	3,617,547	37,472
21	Arterial Road Ramp Extensions (Regional Share)	2022-2041	10,000,000	0	10,000,000	1,000,000	9,000,000	9,000,000	0	6,738,921	804,896	1,441,254	14,929
Subtotal Growth New Infrastructure (Missing Links)			189,645,000	0	189,645,000	1,000,000	188,645,000	188,645,000	0	141,251,532	16,871,067	30,209,482	312,918
Growth Widen to 4 Lanes													
22	14th Avenue - Markham Road to Donald Cousens Parkway	2032-2041	35,616,000	353,000	35,263,000	3,526,300	31,736,700	31,736,700	0	23,763,458	2,838,305	5,082,294	52,644
23	19th Avenue - Bayview Avenue to Leslie Street	2022-2031	27,118,000	0	27,118,000	2,711,800	24,406,200	24,406,200	0	18,274,607	2,182,717	3,908,392	40,484
24	2nd Concession - Green Lane to Doane Road	2022-2031	11,000	0	11,000	1,100	9,900	9,900	0	7,413	885	1,585	16
25	Baseline Road - McCowan Road to Dalton Road	2042-2051	26,998,381	0	26,998,381	2,699,838	24,298,543	0	24,298,543	0	0	0	0
26	Bayview Avenue - Bloomington Road to Wellington Street	2032-2041	37,414,000	1,886,000	35,528,000	3,552,800	31,975,200	31,975,200	0	23,942,039	2,859,634	5,120,487	53,039
27	Bayview Avenue - Stouffville Road to Bloomington Road	2032-2041	19,198,000	2,000,000	17,198,000	1,719,800	15,478,200	15,478,200	0	11,589,597	1,384,260	2,478,668	25,675
28	Bloomington Road - Yonge Street to Bathurst Street	2022-2031	350,000	0	350,000	35,000	315,000	315,000	0	235,862	28,171	50,444	523
29	Carrville Road - Bathurst Street to Yonge Street	2022-2031	3,176,000	0	3,176,000	317,600	2,858,400	2,858,400	0	2,140,281	255,635	457,742	4,741
30	Doane Road - Highway 404 to Yonge Street	2032-2041	64,910,000	6,600,000	58,310,000	5,831,000	52,479,000	52,479,000	0	39,294,650	4,693,348	8,403,951	87,050
31	Donald Cousens Parkway - 16th Avenue to Major Mackenzie Drive	2032-2041	17,565,000	520,000	17,045,000	1,704,500	15,340,500	15,340,500	0	11,486,491	1,371,945	2,456,617	25,446
32	Dufferin Street - Major Mackenzie Drive to Teston Road	2022-2031	17,410,000	1,250,000	16,160,000	1,616,000	14,544,000	14,544,000	0	10,890,097	1,300,712	2,329,066	24,125
33	Elgin Mills Road - Woodbine Bypass to Woodbine Avenue	2022-2031	12,382,000	0	12,382,000	1,238,200	11,143,800	11,143,800	0	8,344,132	996,622	1,784,561	18,485
34	Elgin Mills Road - Yonge Street to Bathurst Street	2022-2031	34,489,000	7,564,000	26,925,000	2,692,500	24,232,500	24,232,500	0	18,144,545	2,167,182	3,880,576	40,196
35	Highway 27 - Major Mackenzie Drive to Nashville Road	2022-2031	19,886,000	1,200,000	18,686,000	1,868,600	16,817,400	16,817,400	0	12,592,348	1,504,029	2,693,127	27,896
36	Highway 27 - Nashville Road to King Road	2032-2041	35,501,000	1,400,000	34,101,000	3,410,100	30,690,900	30,690,900	0	22,980,395	2,744,776	4,914,820	50,909

Table 5-4

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											74.88%	Retail	Industrial/ Office/ Institutional
37	Jane Street - Kirby Road to King-Vaughan Road	2032-2041	18,707,725	0	18,707,725	1,870,772	16,836,952	16,836,952	0	12,606,988	1,505,777	2,696,258	27,929
38	Jane Street - Teston Road to Kirby Road	2032-2041	18,080,000	983,000	17,097,000	1,709,700	15,387,300	15,387,300	0	11,521,534	1,376,131	2,464,112	25,524
X	Jefferson Sideroad - Bathurst Street to Yonge Street	0	0	0	0	0	0	0	0	0	0	0	0
40	Kennedy Road - Major Mackenzie Drive to North of Elgin Mills Road	2022-2031	36,616,000	0	36,616,000	3,661,600	32,954,400	32,954,400	0	24,675,234	2,947,207	5,277,295	54,664
41	King Road - Hwy 27 to 8th Concession	2042-2051	28,227,871	0	28,227,871	2,822,787	25,405,084	0	25,405,084	0	0	0	0
42	King Road - 8th Concession to 7th Concession	2042-2051	12,805,457	1,481,895	11,323,562	1,132,356	10,191,206	0	10,191,206	0	0	0	0
43	King Road - 7th Concession to Weston Road	2042-2051	9,796,831	1,488,885	8,307,946	830,795	7,477,152	0	7,477,152	0	0	0	0
44	King Road - Weston Road to Hwy 400	2042-2051	7,359,767	699,007	6,660,760	666,076	5,994,684	0	5,994,684	0	0	0	0
45	King-Vaughan Road - Dufferin Street to Bathurst Street	2042-2051	14,505,044	1,411,994	13,093,050	1,309,305	11,783,745	0	11,783,745	0	0	0	0
46	King-Vaughan Road - Keele Street to Dufferin Street	2042-2051	11,075,637	1,328,113	9,747,524	974,752	8,772,772	0	8,772,772	0	0	0	0
47	King-Vaughan Road - Jane Street to Keele Street	2042-2051	17,315,908	1,558,785	15,757,122	1,575,712	14,181,410	0	14,181,410	0	0	0	0
48	King-Vaughan Road - Weston Road to Jane Street	2032-2041	35,894,492	0	35,894,492	3,589,449	32,305,042	32,305,042	0	24,189,015	2,889,133	5,173,308	53,587
49	Langstaff Road - Keele Street to Dufferin Street	2022-2031	26,620,000	820,000	25,800,000	2,580,000	23,220,000	23,220,000	0	17,386,417	2,076,632	3,718,435	38,517
50	Leslie Street - Doane Road to Queensville Sideroad	2042-2051	39,368,397	0	39,368,397	3,936,840	35,431,557	0	35,431,557	0	0	0	0
51	Leslie Street - Green Lane to Colonel Weyling Boulevard	2022-2031	10,054,000	461,000	9,593,000	959,300	8,633,700	8,633,700	0	6,464,647	772,137	1,382,595	14,321
52	Leslie Street - Mount Albert Road to Doane Road	2042-2051	21,168,908	0	21,168,908	2,116,891	19,052,017	0	19,052,017	0	0	0	0
53	Leslie Street - Wellington Street to St. John's Sideroad	2022-2031	1,366,000	0	1,366,000	136,600	1,229,400	1,229,400	0	920,537	109,949	196,875	2,039
54	Leslie Street - 19th Avenue to Stouffville Road	2022-2031	709,000	0	709,000	70,900	638,100	638,100	0	477,790	57,067	102,185	1,058
55	Leslie Street - Elgin Mills Road to 19th Avenue	2022-2031	468,000	0	468,000	46,800	421,200	421,200	0	315,382	37,669	67,451	699
56	McCowan Road - Major Mackenzie to Elgin Mills	2042-2051	17,671,985	0	17,671,985	1,767,198	15,904,786	0	15,904,786	0	0	0	0
57	Ninth Line - Steeles Avenue to Box Grove By-Pass	2022-2031	12,917,000	642,000	12,275,000	1,227,500	11,047,500	11,047,500	0	8,272,026	988,010	1,769,139	18,325
58	Pine Valley Drive - Major Mackenzie Drive to Teston Road	2032-2041	23,894,000	870,000	23,024,000	2,302,400	20,721,600	20,721,600	0	15,515,692	1,853,193	3,318,343	34,372
59	Pine Valley Drive - Rutherford Road to Major Mackenzie Drive	2032-2041	24,712,000	1,006,000	23,706,000	2,370,600	21,335,400	21,335,400	0	15,975,287	1,908,086	3,416,636	35,390
60	Queensville Sideroad - Hwy 404 to Woodbine	2042-2051	8,774,310	0	8,774,310	877,431	7,896,879	0	7,896,879	0	0	0	0

Table 5-4

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										74.88%	8.94%	16.01%	0.17%
61	Queensville Sideroad - Leslie to Hwy 404	2042-2051	29,982,555	0	29,982,555	2,998,256	26,984,300	0	26,984,300	0	0	0	0
62	St John's Sideroad - Bayview Avenue to Woodbine Avenue	2022-2031	21,000	0	21,000	2,100	18,900	18,900	0	14,152	1,690	3,027	31
63	St John's Sideroad - Bathurst Street to Yonge Street	2042-2051	29,859,394	0	29,859,394	2,985,939	26,873,454	0	26,873,454	0	0	0	0
64	Stouffville Road - Bayview Avenue to Highway 404	2022-2031	40,650,000	0	40,650,000	4,065,000	36,585,000	36,585,000	0	27,393,715	3,271,902	5,858,697	60,686
65	Stouffville Road - Yonge Street to Bayview Avenue	2032-2041	19,456,000	654,000	18,802,000	1,880,200	16,921,800	16,921,800	0	12,670,520	1,513,365	2,709,846	28,069
66	Teston Road - Dufferin Street to Bathurst Street	2032-2041	20,861,000	0	20,861,000	2,086,100	18,774,900	18,774,900	0	14,058,064	1,679,094	3,006,600	31,143
67	Teston Road - Pine Valley Drive to Weston Road	2022-2031	40,563,000	2,754,000	37,809,000	3,780,900	34,028,100	34,028,100	0	25,479,187	3,043,231	5,449,237	56,445
68	Warden Avenue - Major Mackenzie Drive to Elgin Mills Road	2022-2031	20,517,000	1,860,000	18,657,000	1,865,700	16,791,300	16,791,300	0	12,572,805	1,501,694	2,688,947	27,853
69	Warden Avenue - Elgin Mills to 19th Avenue	2032-2041	18,057,755	0	18,057,755	1,805,775	16,251,979	16,251,979	0	12,168,979	1,453,461	2,602,581	26,958
70	Weston Road - Kirby to King-Vaughan	2042-2051	17,356,409	241,724	17,114,685	1,711,469	15,403,217	0	15,403,217	0	0	0	0
71	Weston Road - Teston Road to Kirby Road	2032-2041	23,121,000	1,008,000	22,113,000	2,211,300	19,901,700	19,901,700	0	14,901,776	1,779,866	3,187,045	33,012
72	Woodbine Avenue - Pollock Road to Old Homestead Road	2042-2051	22,728,373	332,028	22,396,344	2,239,634	20,156,710	0	20,156,710	0	0	0	0
75	Woodbine Avenue - Victoria Square Boulevard to 19th Avenue	2032-2041	13,828,000	117,000	13,711,000	1,371,100	12,339,900	12,339,900	0	9,239,735	1,103,593	1,976,103	20,469
76	Improvements to Support Bradford Bypass (HWY 400-404 Link)	2032-2041	50,000,000	0	50,000,000	5,000,000	45,000,000	45,000,000	0	33,694,606	4,024,480	7,206,269	74,645
Subtotal Growth Widen to 4 Lanes			1,097,134,197	42,490,430	1,054,643,766	105,464,377	949,179,390	673,371,874	275,807,515	504,200,000	60,221,591	107,833,315	1,116,968
Growth Widen to 6 Lanes													
77	Carrville Road - Bathurst Street to Yonge Street	2042-2051	36,809,690	751,432	36,058,258	3,605,826	32,452,432	0	32,452,432	0	0	0	0
78	16th Avenue - Yonge Street to Bayview Avenue	2032-2041	33,940,000	0	33,940,000	3,394,000	30,546,000	30,546,000	0	22,871,899	2,731,817	4,891,616	50,669
79	16th Avenue - Bayview Avenue to Leslie Street	2032-2041	26,650,000	0	26,650,000	2,665,000	23,985,000	23,985,000	0	17,959,225	2,145,048	3,840,942	39,786
80	16th Avenue - Leslie Street to Highway 404	2022-2031	17,436,000	15,000	17,421,000	1,742,100	15,678,900	15,678,900	0	11,739,875	1,402,209	2,510,808	26,008
81	16th Avenue - Highway 404 to Woodbine Avenue	2022-2031	23,354,000	0	23,354,000	2,335,400	21,018,600	21,018,600	0	15,738,077	1,879,754	3,365,904	34,865
82	16th Avenue - Woodbine Avenue to Warden Avenue	2022-2031	29,094,000	148,000	28,946,000	2,894,600	26,051,400	26,051,400	0	19,506,481	2,329,852	4,171,854	43,213
83	16th Avenue - Warden Avenue to Kennedy Road	2022-2031	41,503,000	470,000	41,033,000	4,103,300	36,929,700	36,929,700	0	27,651,815	3,302,730	5,913,897	61,258

Table 5-4

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							Total Development Charge Eligible Cost	Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										74.88%	8.94%	16.01%	0.17%
84	16th Avenue - Kennedy to McCowan	2042-2051	35,303,659	0	35,303,659	3,530,366	31,773,293	0	31,773,293	0	0	0	0
85	Bathurst Street - North of Highway 7 to Rutherford Road	2022-2031	31,413,000	1,687,000	29,726,000	2,972,600	26,753,400	26,753,400	0	20,032,117	2,392,634	4,284,271	44,378
86	Bathurst Street - Rutherford Road to Major Mackenzie Drive	2022-2031	36,267,000	4,079,000	32,188,000	3,218,800	28,969,200	28,969,200	0	21,691,240	2,590,799	4,639,108	48,053
87	Bayview Avenue - North of Highway 7 to 16th Avenue	2022-2031	36,975,000	0	36,975,000	3,697,500	33,277,500	33,277,500	0	24,917,161	2,976,103	5,329,036	55,200
88	Bayview Avenue - John Street to Highway 7	2042-2051	39,402,950	0	39,402,950	3,940,295	35,462,655	0	35,462,655	0	0	0	0
89	Dufferin Street - Langstaff Road to Rutherford Road	2032-2041	40,594,000	961,000	39,633,000	3,963,300	35,669,700	35,669,700	0	26,708,366	3,190,044	5,712,122	59,168
90	Dufferin Street and Rutherford Road	2022-2031	11,691,000	951,000	10,740,000	1,074,000	9,666,000	9,666,000	0	7,237,601	864,458	1,547,907	16,034
91	Highway 27 Road Widening at the Canadian Pacific Railway Bridge	2022-2031	5,301,000	266,000	5,035,000	503,500	4,531,500	4,531,500	0	3,393,047	405,265	725,671	7,517
92	Highway 50 - Steeles Avenue to Hwy 7	2042-2051	36,207,510	0	36,207,510	3,620,751	32,586,759	0	32,586,759	0	0	0	0
93	Highway 50 - Major Mackenzie Drive to Albion-Vaughan Road	2022-2031	17,856,000	0	17,856,000	1,785,600	16,070,400	16,070,400	0	12,033,018	1,437,222	2,573,503	26,657
94	Highway 50 - Rutherford Road to Major Mackenzie Drive	2022-2031	10,144,000	0	10,144,000	1,014,400	9,129,600	9,129,600	0	6,835,962	816,486	1,462,008	15,144
95	Highway 7 West of Kipling Avenue	2022-2031	5,547,000	0	5,547,000	554,700	4,992,300	4,992,300	0	3,738,080	446,476	799,464	8,281
96	Keele Street - Langstaff Road to Rutherford Road	2022-2031	26,893,657	37,310	26,856,347	2,685,635	24,170,713	24,170,713	0	18,098,281	2,161,657	3,870,682	40,094
97	Keele Street - Highway 7 to Langstaff Road	2032-2041	37,445,343	53,690	37,391,653	3,739,165	33,652,487	33,652,487	0	25,197,940	3,009,639	5,389,087	55,822
98	Keele Street - Steeles Avenue to Highway 407	2022-2031	25,558,000	4,613,000	20,945,000	2,094,500	18,850,500	18,850,500	0	14,114,670	1,685,855	3,018,706	31,269
99	Kennedy Road - Steeles Avenue to 14th Avenue	2042-2051	33,937,212	800,363	33,136,849	3,313,685	29,823,164	0	29,823,164	0	0	0	0
100	Kennedy Road - 14th Avenue to Highway 407	2022-2031	59,608,000	3,260,000	56,348,000	5,634,800	50,713,200	50,713,200	0	37,972,473	4,535,428	8,121,177	84,121
101	Kennedy Road - Highway 407 to Highway 7	2022-2031	20,723,000	224,000	20,499,000	2,049,900	18,449,100	18,449,100	0	13,814,115	1,649,956	2,954,426	30,603
102	Kennedy Road - Highway 7 to Major Mackenzie Drive (EA)	2022-2031	270,000	0	270,000	27,000	243,000	243,000	0	181,951	21,732	38,914	403
103	Kennedy Road - Hwy 7 to 16th Avenue	2042-2051	44,429,402	775,898	43,653,505	4,365,350	39,288,154	0	39,288,154	0	0	0	0
104	Langstaff Road - Weston Road to Jane Street	2022-2031	746,000	0	746,000	74,600	671,400	671,400	0	502,724	60,045	107,518	1,114
105	Major Mackenzie Drive - Canadian Pacific Railway to Highway 27	2022-2031	1,613,000	502,000	1,111,000	111,100	999,900	999,900	0	748,694	89,424	160,123	1,659
106	Major Mackenzie Drive - Highway 27 to Pine Valley Drive	2022-2031	2,486,000	2,053,000	433,000	43,300	389,700	389,700	0	291,795	34,852	62,406	646
107	Major Mackenzie Drive - Highway 400 to Jane Street	2022-2031	22,418,000	0	22,418,000	2,241,800	20,176,200	20,176,200	0	15,107,314	1,804,416	3,231,003	33,468

Table 5-4

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										74.88%	8.94%	16.01%	0.17%
108	Major Mackenzie Drive - Keele Street to McNaughton Road	2022-2031	12,035,000	1,140,000	10,895,000	1,089,500	9,805,500	9,805,500	0	7,342,055	876,934	1,570,246	16,265
109	Major Mackenzie Drive - Leslie Street to Woodbine Avenue	2032-2041	26,517,005	0	26,517,005	2,651,701	23,865,305	23,865,305	0	17,869,601	2,134,343	3,821,774	39,587
110	McCowan Road - Bullock Drive to 16th Avenue	2032-2041	15,565,000	707,000	14,858,000	1,485,800	13,372,200	13,372,200	0	10,012,689	1,195,914	2,141,415	22,181
111	McCowan Road - 14th Avenue to Bullock Drive	2022-2031	37,071,000	228,000	36,843,000	3,684,300	33,158,700	33,158,700	0	24,828,207	2,965,478	5,310,012	55,003
112	Rutherford Road - Jane Street to Westburne Drive	2022-2031	43,230,000	389,000	42,841,000	4,284,100	38,556,900	38,556,900	0	28,870,212	3,448,255	6,174,476	63,957
113	Rutherford Road - Peter Rupert Avenue to Bathurst Street	2022-2031	37,514,000	650,000	36,864,000	3,686,400	33,177,600	33,177,600	0	24,842,359	2,967,169	5,313,038	55,034
114	Steeles Avenue Donald Cousens Parkway to Morningside Avenue	2022-2031	329,000	0	329,000	32,900	296,100	296,100	0	221,711	26,481	47,417	491
115	Steeles Avenue - Tapscott Road to Ninth Line	2022-2031	23,543,000	0	23,543,000	2,354,300	21,188,700	21,188,700	0	15,865,442	1,894,967	3,393,144	35,147
116	Warden Avenue - Highway 7 to 16th Avenue	2032-2041	25,836,000	0	25,836,000	2,583,600	23,252,400	23,252,400	0	17,410,677	2,079,529	3,723,624	38,570
117	Weston Road - Highway 407 to North of Highway 7	2022-2031	8,847,000	0	8,847,000	884,700	7,962,300	7,962,300	0	5,961,924	712,091	1,275,077	13,208
118	Weston Road - North and South of Rutherford Road	2022-2031	13,408,000	0	13,408,000	1,340,800	12,067,200	12,067,200	0	9,035,546	1,079,205	1,932,433	20,017
119	Yonge Street - Davis Drive to Green Lane	2022-2031	48,175,000	541,000	47,634,000	4,763,400	42,870,600	42,870,600	0	32,100,177	3,834,042	6,865,269	71,112
Subtotal Growth Widen to 6 Lanes			1,083,686,428	25,302,693	1,058,383,736	105,838,374	952,545,362	751,158,905	201,386,458	562,444,519	67,178,310	120,290,077	1,245,999
Road Improvements to Support Transit													
120	Short Term Rapid Transit Project (Roads Infrastructure)	2022-2031	476,000,000	349,050,800	126,949,200	22,847,058	104,102,142	104,102,142	0	77,948,459	9,310,155	16,670,846	172,681
121	Medium Term Rapid Transit Project (Roads Infrastructure)	2032-2041	1,040,000,000	762,632,000	277,368,000	49,917,941	227,450,059	227,450,059	0	170,307,558	20,341,515	36,423,698	377,287
122	Long Term Rapid Transit Project (Roads Infrastructure)	2042-2051	517,000,000	379,116,100	137,883,900	24,814,977	113,068,923	0	113,068,923	0	0	0	0
Subtotal Road Improvements to Support Transit			2,033,000,000	1,490,798,900	542,201,100	97,579,975	444,621,125	331,552,201	113,068,923	248,256,018	29,651,671	53,094,545	549,968
Reconstruction													
123	Bridge and Culvert	2022-2041	426,125,000	0	426,125,000	311,071,250	115,053,750	115,053,750	0	86,148,684	10,289,589	18,424,629	190,848
124	Roads and Pavement	2022-2041	2,077,888,791	0	2,077,888,791	1,516,858,818	561,029,974	561,029,974	0	420,081,865	50,174,530	89,842,959	930,619
125	Rapidway Corridors	2022-2041	21,465,557	9,798,539	11,667,018	8,516,923	3,150,095	3,150,095	0	2,358,694	281,722	504,454	5,225
126	Intersection	2022-2041	20,000,000	0	20,000,000	14,600,000	5,400,000	5,400,000	0	4,043,353	482,938	864,752	8,957

Table 5-4

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										74.88%	8.94%	16.01%	0.17%
Subtotal Reconstruction			2,545,479,348	9,798,539	2,535,680,810	1,851,046,991	684,633,819	684,633,819	0	512,632,595	61,228,779	109,636,795	1,135,649
Environmental Assessment, Design, Survey and Property Acquisition for Future Capital Projects													
127	Miscellaneous Design & Survey for Future Projects	2022-2041	15,000,000	0	15,000,000	1,500,000	13,500,000	13,500,000	0	10,108,382	1,207,344	2,161,881	22,393
128	Property Acquisition for Future Capital Projects	2022-2041	10,000,000	0	10,000,000	1,000,000	9,000,000	9,000,000	0	6,738,921	804,896	1,441,254	14,929
Subtotal Environmental Assessment, Design, Survey and Property Acquisition for Future Capital Projects			25,000,000	0	25,000,000	2,500,000	22,500,000	22,500,000	0	16,847,303	2,012,240	3,603,135	37,322
Intersection and Miscellaneous Capital													
129	Intersection, Bottleneck and Miscellaneous Capital	2022-2041	432,000,000	0	432,000,000	52,435,340	379,564,660	379,564,660	0	284,206,260	33,945,563	60,783,227	629,610
130	Various Road Improvements	2022-2041	94,515,001	1,000,000	93,515,001	9,351,500	84,163,501	84,163,501	0	63,019,022	7,526,985	13,477,886	139,608
131	Regional Streetscaping	2022-2041	26,116,000	0	26,116,000	5,223,200	20,892,800	20,892,800	0	15,643,881	1,868,503	3,345,759	34,656
132	Intelligent Transportation System	2022-2041	34,157,000	0	34,157,000	3,415,700	30,741,300	30,741,300	0	23,018,133	2,749,283	4,922,891	50,993
Subtotal Intersection and Miscellaneous Capital			586,788,001	1,000,000	585,788,001	70,425,740	515,362,261	515,362,261	0	385,887,297	46,090,335	82,529,763	854,867
Transportation Demand Mangement													
133	Residential Transportation Demand Mangement	2022-2041	37,965,802	0	37,965,802	3,796,580	34,169,222	34,169,222	0	25,584,855	3,055,852	5,471,836	56,679
134	Non-Residential Transportation Demand Mangement	2022-2041	4,876,554	0	4,876,554	487,655	4,388,898	4,388,898	0	3,286,271	392,512	702,835	7,280
135	TDM Studies, Pilot Programs, and Initiatives	2022-2041	1,000,000	0	1,000,000	100,000	900,000	900,000	0	673,892	80,490	144,125	1,493
Subtotal Transportation Demand Mangement			43,842,355	0	43,842,355	4,384,236	39,458,120	39,458,120	0	29,545,018	3,528,854	6,318,797	65,452
Active Transportation Programs and Initiatives													
136	Pedestrian Cycling Partnership Program	2022-2041	11,318,000	0	11,318,000	1,131,800	10,186,200	10,186,200	0	7,627,111	910,981	1,631,211	16,897
137	Pedestrian Cycling Program inc. Urbanization	2022-2041	289,125,000	0	289,125,000	28,912,500	260,212,500	260,212,500	0	194,839,059	23,271,555	41,670,253	431,632
138	HWY 407 / South York Greenway	2022-2041	27,500,000	0	27,500,000	2,750,000	24,750,000	24,750,000	0	18,532,033	2,213,464	3,963,448	41,055
139	Keele Street - Highway 407 to Highway 7	2022-2041	12,147,000	114,000	12,033,000	1,203,300	10,829,700	10,829,700	0	8,108,944	968,531	1,734,261	17,964
Subtotal Active Transportation Programs and Initiatives			340,090,000	114,000	339,976,000	33,997,600	305,978,400	305,978,400	0	229,107,148	27,364,532	48,999,173	507,547

Table 5-4

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										74.88%	8.94%	16.01%	0.17%
Growth Planning													
140	Transportation Master Plan Update	2022-2041	3,066,000	0	3,066,000	306,600	2,759,400	2,759,400	0	2,066,153	246,781	441,888	4,577
141	Arterial Corridor Transportation Studies	2022-2041	5,860,000	0	5,860,000	586,000	5,274,000	5,274,000	0	3,949,008	471,669	844,575	8,748
142	Transportation Planning Studies	2022-2041	10,000,000	0	10,000,000	1,000,000	9,000,000	9,000,000	0	6,738,921	804,896	1,441,254	14,929
Subtotal Growth Planning			18,926,000	0	18,926,000	1,892,600	17,033,400	17,033,400	0	12,754,082	1,523,346	2,727,717	28,254
Miscellaneous Charges													
143	Forestry	2022-2041	24,789,000	0	24,789,000	0	24,789,000	24,789,000	0	18,561,235	2,216,952	3,969,694	41,119
144	North East Vaughan (Dufferin Street, Keele Street and King Vaughan Road) Road Credits	2022-2031	2,160,000	0	2,160,000	0	2,160,000	2,160,000	0	1,617,341	193,175	345,901	3,583
Subtotal Miscellaneous Charges			26,949,000	0	26,949,000	0	26,949,000	26,949,000	0	20,178,576	2,410,127	4,315,595	44,702
Total			8,477,068,299	1,766,583,708	6,710,484,591	2,281,228,092	4,429,256,499	3,670,608,779	758,647,720	2,748,438,149	328,273,141	587,808,800	6,088,689

2022 Development Charges Background Study
Roads Contingency List
Growth related capital costs

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										74.88%	8.94%	16.01%	0.17%
Interchanges													
1	Highway 404 Interchange at 19th Avenue	2022-2041	57,295,875	0	57,295,875	0	57,295,875	57,295,875	0	42,901,376	5,124,136	9,175,323	95,041
Subtotal Interchanges			57,295,875	0	57,295,875	0	57,295,875	57,295,875	0	42,901,376	5,124,136	9,175,323	95,041
Midblock Crossings													
2	Midblock Crossing - Highway 400 north of Rutherford Road	2022-2041	70,857,811	47,238,541	23,619,270	0	23,619,270	23,619,270	0	17,685,378	2,112,340	3,782,374	39,179
3	Midblock Crossing - Highway 400 south of Highway 7 (Regional Share)	2022-2041	56,067,000	0	56,067,000	0	56,067,000	56,067,000	0	41,981,233	5,014,234	8,978,531	93,002
Subtotal Midblock Crossings			126,924,811	47,238,541	79,686,270	0	79,686,270	79,686,270	0	59,666,611	7,126,573	12,760,905	132,181
Growth New Infrastructure													
4	Langstaff Road - Jane Street to Keele Street	2022-2041	836,448,600	557,632,400	278,816,200	0	278,816,200	278,816,200	0	208,768,934	24,935,338	44,649,437	462,491
Subtotal Growth New Infrastructure			836,448,600	557,632,400	278,816,200	0	278,816,200	278,816,200	0	208,768,934	24,935,338	44,649,437	462,491
Growth Widen to 4 Lanes													
5	Elgin Mills Road - Woodbine Avenue to Warden Avenue	2022-2041	16,432,534	0	16,432,534	1,643,253	14,789,280	14,789,280	0	11,073,755	1,322,648	2,368,345	24,532
6	Elgin Mills Road - Warden Avenue to Kennedy Road	2022-2041	16,362,615	0	16,362,615	1,636,262	14,726,354	14,726,354	0	11,026,637	1,317,020	2,358,268	24,428
7	Elgin Mills Road - Kennedy Road to McCowan Road	2022-2041	29,996,554	0	29,996,554	2,999,655	26,996,898	26,996,898	0	20,214,441	2,414,411	4,323,265	44,782
8	Elgin Mills Road - McCowan Road to Highway 48	2022-2041	16,727,980	0	16,727,980	1,672,798	15,055,182	15,055,182	0	11,272,854	1,346,428	2,410,927	24,973
9	Kirby Road - Weston Road to Jane Street	2022-2041	61,626,345	0	61,626,345	6,162,635	55,463,711	55,463,711	0	41,529,509	4,960,280	8,881,921	92,001
10	Kirby Road - Jane Street to Keele Street	2022-2041	16,918,015	0	16,918,015	1,691,801	15,226,213	15,226,213	0	11,400,917	1,361,724	2,438,315	25,257
11	Kirby Road - Keele Street to Dufferin Street	2022-2041	15,246,008	0	15,246,008	1,524,601	13,721,407	13,721,407	0	10,274,165	1,227,145	2,197,337	22,761
12	19th Avenue - Leslie Street to Woodbine Avenue	2022-2041	59,512,842	0	59,512,842	5,951,284	53,561,558	53,561,558	0	40,105,235	4,790,165	8,577,311	88,846
13	19th Avenue - Woodbine Avenue to Warden Avenue	2022-2041	13,994,435	1,398,014	12,596,422	1,259,642	11,336,780	11,336,780	0	8,488,629	1,013,861	1,815,464	18,805
Subtotal Growth Widen to 4 Lanes			246,817,328	1,398,014	245,419,315	24,541,931	220,877,383	220,877,383	0	165,386,142	19,753,702	35,371,154	366,384
Growth Widen to 6 Lanes													
14	Langstaff Road - Weston Road to Jane Street	2022-2041	37,063,731	800,271	36,263,460	3,626,346	32,637,114	32,637,114	0	24,437,660	2,918,831	5,226,485	54,137
15	Langstaff Road - Keele Street to Dufferin Street	2022-2041	26,765,446	0	26,765,446	2,676,545	24,088,901	24,088,901	0	18,037,023	2,154,340	3,857,580	39,958
Subtotal Subtotal Interchanges			63,829,177	800,271	63,028,906	6,302,891	56,726,016	56,726,016	0	42,474,683	5,073,171	9,084,066	94,095
Road Improvements to Support Transit													
16	Steeles Avenue - Jane Street to Kennedy Road (Regional Share)	2022-2041	276,000,000	202,390,800	73,609,200	13,247,454	60,361,746	60,361,746	0	45,197,006	5,398,325	9,666,289	100,126
Subtotal Road Improvements to Support Transit			276,000,000	202,390,800	73,609,200	13,247,454	60,361,746	60,361,746	0	45,197,006	5,398,325	9,666,289	100,126
Total			1,607,315,792	809,460,026	797,855,766	44,092,276	753,763,490	753,763,490	0	564,394,752	67,411,245	120,707,174	1,250,319

6 TRANSIT: CAPITAL FORECASTS AND DC-RECOVERABLE COSTS

6.1. Program Description

The Transit growth program includes facilities, transit garages, bus terminals and stops, including but not limited to:

Technology/ Equipment	Electric bus infrastructure and charging stations, expansion of the automated fare collection system
Vehicles	Fleet expansion (YRT/Viva/Mobility On-Request)
Stations and Facilities	Transit vehicle garages, terminals, stops, stations
Bus Rapid Transit	BRT infrastructure, Environmental Assessments and preliminary design

6.2. Level of Service Calculation

Transit level of service is determined using a forward-looking planned level of service as opposed to a historical 10-year average level of service.

For the purpose of the development charges calculations for transit, excluding Toronto-York Spadina Subway Extension and the Yonge North Subway Extension, the “planned level of service” is considered to be the Council-endorsed 2022 10-year capital plan. This confirms Council’s intention to meet the increased need for transit services through the transit network defined in the Transportation Master Plan, as updated, and YRT’s service guidelines outlined in the Council-approved [YRT 2021-2025 Business Plan](#) and the 10-year Capital Plan.

The YRT service guidelines define how new services are designed, and how existing transit routes are evaluated for service adjustments. They are applied in tandem with route performance measures. For Mobility On-Request Paratransit service standards and all policies meet or exceed the standards and requirements outlined in the *Accessibility for Ontarians with Disabilities Act, 2005 (AODA)*, and the *Ontario Regulation 191/11: Integrated Accessibility Standards*. The service guidelines include:

- Service Coverage
- Span of Service
- Minimum Service Frequency
- Vehicle Capacity
- New Service Implementation
- Mobility On-Request Paratransit Service Area
- Mobility On-Request Paratransit Days and Hours of Service

6.3. Ridership Forecasts

Estimated ridership, measured by trips, is obtained from the Regional Transportation Demand Forecast model. This provides a basis for estimating the total number of trips during the AM peak period for local transit, GO Rail and auto trips:

- All trips originating from York Region to all destinations
- All trips with destinations to York Region from all origins
- All trips with origins in York Region and destinations in York Region were calculated and excluded from the analysis to account for double counting of trips, as these trips were already captured in all trip origins and all trip destinations

The following horizons were evaluated related to the Base Year - the Travel Demand Forecasting Horizon that closely represents the DC Bylaw horizon:

- Total Trips – Total Auto and Local Transit Trips in the AM Peak Period at the end of the Base Year. Where required, a base year may be estimated based on two horizons within the Travel Demand Forecasting Model (T)
- Local Transit Trips – trips in the AM Peak Period at the end of the Base year (A)
Local Transit Trips are defined as trips with an origin or a destination within York Region across the following transit services:
 - Conventional Transit
 - Bus Rapid Transit
 - Subway
- Interim Local Transit Trips – trips in the AM Peak Period at the Base Year + 5 years (B)
- 10-Year Local Transit Trips – trips in the AM Peak Period at the end of a 10-year planning horizon (C)
- For the case of the 2022 DC Bylaw, it is assumed that the Yonge North Subway Extension is in service within the 10-year horizon.

The model extractions are summarized in Table 6-1 below:

**TABLE 6-1
TRANSIT MODEL EXTRACTIONS**

Horizon	Local Transit	HOV Passenger	Non- motorized	Excl. GO Rail		Transit Mode Share
				Auto Trips	Total	
2021	62,450 (A)	110,467	61,133	502,000	736,050 (T)	8.48%
2026	69,899 (B)	124,233	64,967	539,800	798,899	8.75%
2031	84,700 (C)	138,000	68,800	577,600	869,100	9.75%
Total	217,049	372,700	194,900	1,619,400	2,404,049	9.03% (F)

6.4. Benefit to Existing Development Deduction

The Local Transit Modal Split for existing development (F) is applied to the total trips in the Base Year (T) to determine forecasted transit trips by existing development in 10 years (BTE).

Local Transit Modal Split for the existing development (F) is estimated based on an weighted average of Base, Base+5-years and Base+10-years local transit modal split. The justification of a blended average is to reflect the gradual and incremental change in mode shift over the 10-year horizon.

The growth in transit trips between the Base Year (A) and 10-Year (C - A), is attributed to a split between growth in ridership from existing residents versus planned new development for the forward looking 10-year horizon. Estimated transit trips in the 10-year horizon are calculated by applying the forecasted mode split in the 10-year horizon (F) to the total trips in the base year (T).

217,049 Transit Trips (Sum of 2021, 2026, 2031 forecasted trips)

2,404,049 Total Trips (Sum of 2021, 2026, 2031 forecasted trips)

9.03% Weighted Mode Split (F)

The justification of a step increase in the local transit mode share for existing residents is based on the anticipated faster uptake in transit use by new development compared to existing residents and employees. This is supported by the requirements in the Provincial Growth Plan promoting transit-supportive growth density targets and with transit-oriented street configurations for new development within the existing built boundary and urban growth area.

It is the position of the Region that benefit to existing for Transit be calculated based on the following formula:

$$\text{BTE} = \frac{(T \times F) - A}{C - A} = \frac{(736,050 \times (9.03\%)) - 62,450}{84,700 - 62,450} = 18\%$$

As such, the deduction for benefit to existing development has been established at 18%.

6.5. Post Period Benefit Deduction

The Region provides services to meet Council direction reflected in the [YRT 2021-2025 Business Plan](#), [10-year capital program](#), and the expansion of transit solutions as identified in the Transportation Master Plan. Transit service usage is monitored throughout the year and adjustments are made to the routes and frequency based on demand and revenue-to-cost ratios for specific routes. Where routes are not sustainable, alternative transit solutions are implemented including Mobility On-Request. There is no uncommitted excess capacity in the transit network.

- Headways and vehicle types and sizes are scheduled to meet the service standards as set by Council and outlined in the [YRT Business Plan](#)
- Transit routes and services are monitored and adjusted periodically throughout the year to optimize the use of fleet and to provide cost-effective services.

6.6. Grants, Subsidies and Other Contributions

Any applicable grants, subsidies and other contributions have been deducted from the DC-eligible costs in accordance with the requirements of the Act. The grants are primarily from senior levels of government; however, the amounts vary by project and are not based on a set formula. For the projects included in the 2022 DC Background Study, the total amount of applicable grants and subsidies are about \$595 million.

6.7. Residential versus Non-Residential Allocation

The net growth-related costs have been allocated between residential and non-residential development on the same basis as the Roads calculation outlined in subsection 5.6, yielding a 74.00% residential and 26.00% non-residential split to 2031.

TABLE 6-2
INCREMENTAL GROWTH FOR POPULATION AND EMPLOYMENT

	2022 to mid-2031	%
Gross population growth	222,074	74.00
Employment growth requiring new space	78,039	26.00
Total	300,113	100.00

Table 6-3

2022 Development Charges Background Study
 Transit Service
 Growth related capital costs

Project Number	Project Description	Timing	Gross Project Cost	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential 74.00%	Non-Residential Share		
											Retail 9.27%	Industrial/ Office/ Institutional 16.56%	Hotel 0.17%
Vehicles													
1	Support Vehicles	2022-2031	500,000		500,000	89,985	410,015	410,015	0	303,396	38,028	67,907	684
2	Mobility Plus Bus Expansion	2022-2031	5,940,000		5,940,000	1,069,022	4,870,978	4,870,978	0	3,604,343	451,771	806,735	8,129
3	Conventional Bus Expansion	2022-2031	99,740,000		99,740,000	17,950,216	81,789,784	81,789,784	0	60,521,415	7,585,796	13,546,079	136,494
4	Viva Bus Expansion	2022-2031	86,400,000		86,400,000	15,549,415	70,850,585	70,850,585	0	52,426,812	6,571,213	11,734,322	118,238
Subtotal Vehicles			192,580,000	0	192,580,000	34,658,638	157,921,362	157,921,362	0	116,855,967	14,646,807	26,155,043	263,545
Facilities													
5	Transit Vehicle Garage - North	2027-2031	23,000,000		23,000,000	4,139,312	18,860,688	18,860,688	0	13,956,212	1,749,281	3,123,720	31,475
6	Transit Garage Southeast	2027-2031	88,960,000		88,960,000	16,010,138	72,949,862	72,949,862	0	53,980,200	6,765,915	12,082,005	121,742
7	Transit Garage South	2027-2031	61,200,000		61,200,000	11,014,169	50,185,831	50,185,831	0	37,135,659	4,654,609	8,311,811	83,752
8	55 Orlando Garage Expansion	2022-2026	31,250,000		31,250,000	5,624,065	25,625,935	25,625,935	0	18,962,244	2,376,741	4,244,185	42,766
9	Bus Terminals, Loops & Stops - Expansion	2022-2031	8,039,000		8,039,000	1,446,779	6,592,221	6,592,221	0	4,877,999	611,412	1,091,808	11,001
10	Mackenzie-Vaughan Hospital Terminal	2022-2026	2,000,000		2,000,000	359,940	1,640,060	1,640,060	0	1,213,584	152,111	271,628	2,737
Subtotal Facilities			214,449,000	0	214,449,000	38,594,404	175,854,596	175,854,596	0	130,125,897	16,310,069	29,125,157	293,473
Technology													
11	Intelligent TRN System Expansion	2022-2031	8,060,000		8,060,000	1,450,559	6,609,441	6,609,441	0	4,890,742	613,009	1,094,660	11,030
12	Automated Fare Collection System Expansion	2022-2031	3,000,000		3,000,000	539,910	2,460,090	2,460,090	0	1,820,375	228,167	407,442	4,105
13	Electric Bus Infrastructure	2022-2031	27,540,000	0	27,540,000	18,797,945	8,742,055	2,779,266	5,962,789	2,056,554	257,770	460,304	4,638
14	Electric Bus Depot Charging Stations	2022-2031	9,600,000	0	9,600,000	3,081,481	6,518,519	6,518,519	0	4,823,463	604,576	1,079,601	10,878
Subtotal Technology			48,200,000	0	48,200,000	23,869,896	24,330,104	18,367,315	5,962,789	13,591,134	1,703,522	3,042,007	30,652
Bus Rapid Transit													
15	Bus Rapid Transit Infrastructure	2022-2031	812,000,000	595,439,600	216,560,400	38,974,393	177,586,007	177,586,007	0	131,407,077	16,470,653	29,411,914	296,362
16	Environmental Assessment and Preliminary Design for Future Rapid Transit	2022-2031	29,903,533	0	29,903,533	5,381,741	24,521,792	24,521,792	0	18,145,219	2,274,334	4,061,316	40,923
Subtotal Bus Rapid Transit			841,903,533	595,439,600	246,463,933	44,356,134	202,107,799	202,107,799	0	149,552,296	18,744,987	33,473,230	337,285
Total			1,297,132,533	595,439,600	701,692,933	141,479,071	560,213,862	554,251,073	5,962,789	410,125,295	51,405,386	91,795,437	924,956

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7 TORONTO-YORK SPADINA SUBWAY EXTENSION: CAPITAL FORECASTS AND DC-RECOVERABLE COSTS

7.1. Program Description

This service involves York Region's share of costs for the Toronto-York Spadina Subway Extension (TYSSE) including rights of way, system tracks, tunnel and single system, crossovers, subway stations and subway commuter facilities. The gross project cost is the updated estimate as of 2022 and is net of any expenditure to date (Table 7-1). As this project was included in York Region's 2017 Development Charges Study, the existing reserve fund balance for this service has been deducted from the development charge recoverable share in the cash flow calculations.

7.2. Level of Service Calculation

Pursuant to s.s.5.1 (2) of the Act, this service is not limited by a historical level of service calculation, and is subject to a planned level of service in accordance with the Regulation.

7.3. Benefit to Existing Development Deduction

The deduction for benefit-to-existing development for this service is consistent with the previous Development Charges Background Studies and Bylaws at 26%.

7.4. Post Period Benefit Deduction

Consistent with the previous Development Charges Background Studies and Bylaw, no deduction has been made for post period benefit as the costs are being recovered over the entire benefiting period.

7.5. Grants, Subsidies and Other Contributions

The capital costs have been reduced to exclude the portion attributable to grants and subsidies. The grant share for the remainder of the project is expected to be approximately \$1.7 million.

7.6. Residential versus Non-Residential Allocation

The net growth-related costs have been allocated between residential and non-residential development on the same basis as the Roads calculation outlined in subsection 5.6, yielding a 74.00% residential and 26.00% non-residential split to 2031.

Table 7-1

2022 Development Charges Background Study
 Toronto-York Spadina Subway
 Growth related capital costs

Project Number	Project Description	Timing	Gross Project Cost (2022-2031)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2031)	Post Period Benefit/ Level of Service Deduction (Beyond 2031)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
1	Toronto-York Spadina Subway Extension	2022	6,639,000	1,726,000	4,913,000	1,277,380	3,635,620	3,635,620	0	74.00%	9.27%	16.56%	0.17%
	Total		6,639,000	1,726,000	4,913,000	1,277,380	3,635,620	3,635,620	0	2,690,224	337,195	602,134	6,067

8 YONGE NORTH SUBWAY EXTENSION: CAPITAL FORECASTS AND DC-RECOVERABLE COSTS

8.1. Program Description

The Yonge North Subway Extension (YNSE) is an approximately eight-kilometre extension of TTC Line 1 (Yonge - University) to Richmond Hill, including stations, train storage, transit connections and commuter parking facilities. This service involves York Region's planned share of costs for the YNSE, including, but not limited to: land, stations, platforms, enclosures, subway infrastructure, vehicles, rights of way, system tracks, tunnel and signal system, crossovers, and subway commuter facilities.

The YNSE total project cost is estimated at \$5.6 billion. In May 2020, York Region entered into a Preliminary Agreement with the Province of Ontario to fund and build the YNSE. The Preliminary Agreement ensures that the Province of Ontario, York Region and the City of Toronto are fully committed to working together in partnership. As per the Ontario-York Region Transit Partnership Preliminary Agreement (May 2020), the Region is expected to contribute its pro-rata share to the subway's construction. In May of 2021, the federal government announced up to \$2.24 billion for the project. Based on the current estimated project budget of \$5.6 billion, the Region's pro rata share of the YNSE is estimated at \$1.12 billion, which is equivalent to 75% of the total municipal contribution. This share is expressed as the principal cost of the subway line in this background study.

8.2. Level of Service Calculation

Pursuant to s.s.5.1 (2) of the Act, this service is not limited by a historical level of service calculation and is subject to a planned level of service in accordance with the Regulation.

The planned level of service is considered to be the Council-approved capital plan, Province of Ontario-Regional Municipality of York Transit Partnership (Yonge North Subway Extension) Preliminary Agreement, or Ontario-York Region Transit Partnership, in respect of the Yonge North Subway Extension.

The Act allows the treatment of the YNSE as a discrete service with a 20-year planning horizon.

8.3. Ridership Forecasts

As required under the Act, the Region must identify the subway costs that were to be considered to benefit the existing (BTE) development as of the date of the completion of the background study. For calculating the BTE share, several assumptions have been made.

Estimated ridership, measured by trips, is obtained from the Regional Transportation Demand Forecast model. This provides a basis for estimating the total number of trips during the AM peak period for local transit, GO Rail and auto trips:

- All trips originating from York Region to all destinations
- All trips with destinations to York Region from all origins
- A YNSE trip is defined as any trip that has an origin within York Region that shares a portion of its trip using the YNSE

The following horizons were evaluated related to the Base Year - the Travel Demand Forecasting Horizon that closely represents the DC Bylaw horizon:

- Total Trips – Total Auto and Local Transit Trips in the AM Peak Period at the end of the Base Year. Where required, a base year may be estimated based on two horizons within the Travel Demand Forecasting Model (T)
- YNSE Trips - All trips with destinations to the Yonge North Subway Extension – trips in the AM Peak Period at the end of the Base Year (A)
- Interim YNSE trips – trips in the AM Peak Period at the Base Year and incremental years through to the 20-year horizon within the Travel Demand Forecasting Model (B)
- 20-Year YNSE trips – trips in the AM Peak Period at the end of 20-year planning horizon (C)
- For the case of the 2022 DC Bylaw, it is assumed that the Yonge North Subway Extension is in service within the 10-year horizon

The model extractions are summarized in the following table.

**TABLE 8-1
YNSE MODEL EXTRACTIONS**

Horizon	YNSE	Local Transit	Non-motorized	HOV Passenger	Auto Trips	Total	Excl. GO Rail
							YNSE Mode Share
2021	17,289 (A)	28,757	59,200	84,800	375,733	565,779 (T)	3.06%
2026	20,833 (B)	31,458	62,900	96,700	404,967	616,858	3.38%
2031	27,875 (C)	36,825	66,600	108,600	434,200	674,100	4.14%
2041	29,545 (D)	41,955	95,600	137,500	512,500	817,100	3.62%
Total	95,542	138,995	284,300	427,600	1,727,400	2,673,837	3.57% (F)

8.4. Benefit to Existing Development Deduction

The YNSE Modal Split for existing development (F) is applied to total trips (T) in the Base Year to determine forecasted transit trips in the 10 Year by existing development (BTE).

The YNSE Mode Split for the existing development is estimated based on an average of base, interim horizon(s), and DC horizon YNSE trips (F). The justification of a weighted average is to reflect the gradual and incremental change in mode shift over the 20-year horizon.

The growth in YNSE trips between the Base Year (A) and 20-Year (D - A), is attributed to a split between growth in ridership from existing residents versus planned new development for the forward looking 20-year horizon. Estimated transit trips in the 20-year horizon are estimated by applying the forecasted mode split in the 20-year horizon (F) to the total trips in the base year (T).

95,542	YNSE Trips (Sum of 2021, 2026, 2031, 2041 forecasted trips)
2,673,837	Total Trips (Sum of 2021, 2026, 2031, 2041 forecasted trips)
3.57%	Weighted Mode Split (F)

The justification of a step increase in the YNSE transit mode share for existing residents is based on the anticipated faster uptake in transit use by new development compared to existing residents and employees. This is supported by the requirements in the Provincial Growth Plan promoting transit-supportive growth density targets and with transit-oriented street configurations for new development within the existing built boundary and urban growth area.

Using this approach, the benefit to existing deduction is calculated as follows:

$$\text{BTE} = \frac{(T \times F) - A}{D - A} = \frac{(565,779 \times (3.57\%)) - 17,289}{29,545 - 17,289} = 23.74\%$$

In addition to the aforementioned methodology, York Region evaluated two additional methodologies to estimate the benefiting population for YNSE. One of these includes the use of the Regional Travel Demand Forecasting Model, but with different formulations as noted above. The second approach includes an assessment of population growth. The result of the various models ranged from 8% to 27% BTE, however, clustered between 24 and 27%. As such, the deduction for the YNSE benefit to existing development has been rounded to 25% (Table 8-2), or \$280 million.

8.5. Post Period Benefit Deduction

No deduction has been made for post period or uncommitted excess capacity as the costs are being recovered over the entire benefiting period of this infrastructure. The infrastructure constructed for YNSE within the planning horizon is considered the minimum investment required to implement the subway extension to support growth within the 2041 planning horizon. Additional

capacity to the system would require significant additional investment including investment in rolling stock, improvements to the existing subway infrastructure south of Finch Station not included in the extension project, additional storage and maintenance facilities, and completion of future subway corridors in Toronto which are not included in this Background Study.

Although the tunnels and stations are built for a longer horizon, the additional capacity can only be unlocked with significant additional investment on the elements identified above. For this reason, the Metrolinx Initial Business Case (IBC) to support the construction of the Yonge North Subway Extension also used a horizon of 2041.

8.6. Grants, Subsidies and Other Contributions

There are no grants or subsidies for the Regional share of the YNSE subway costs. The overall capital costs have been reduced to exclude the portion attributable to senior levels of government grants and subsidies.

8.7. Residential versus Non-residential Allocation

The net growth-related costs have been allocated between residential and non-residential development on the same basis as the Roads calculation outlined in subsection 5.6, yielding a 74.88% residential and 25.12% non-residential split.

2022 Development Charges Background Study
 Yonge North Subway Extension
 Growth related capital costs

Project Number	Project Description	Timing	Gross Project Cost (2022-2031)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Non-Residential Share			
										Residential	Retail	Industrial/ Office/ Institutional	Hotel
1	Yonge North Subway Extension	2022-2041	1,120,000,000	0	1,120,000,000	280,000,000	840,000,000	840,000,000	0	74.88%	8.94%	16.01%	0.17%
	Total		1,120,000,000	0	1,120,000,000	280,000,000	840,000,000	840,000,000	0	628,965,979	75,123,625	134,517,030	1,393,365

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9. GENERAL SERVICES: CAPITAL FORECASTS AND DC-RECOVERABLE COSTS

This Chapter of the Background Study is organized into the following nine sections by service and planning horizon:

20-Year Planning Horizon:

- 9.1 Police Services
- 9.2 Waste Diversion
- 9.3 Public Works
- 9.4 Housing Services
- 9.5 Growth Studies
- 9.6 Court Services

10-Year Planning Horizon:

- 9.7 Ambulance Services
- 9.8 Public Health
- 9.9 Long-Term Care/Seniors Services

9.1 Police Services

9.1.1 Program Description

The 20-year Police Services capital program (Table 9-6) consists of:

Facilities	Largely a #1 district multi-function building, new district substation, consolidation of leased premises
Land	Land acquisition
Vehicles	Increase of inventory by adding new vehicles, marine boats and police helicopter
Equipment	Mostly specialized equipment, portable and mobile gear, radio systems, business intelligence and digital evidence management

9.1.2 Level of Service

The 10-year historical level of service is comprised of the following:

- Existing owned and leased facilities including district stations and substations, and the Central Services Building. This space has been valued based on 2022 replacement cost per square foot, including an allowance for land purchase and site servicing (Tables 9-2)
- Land for owned and leased districts and headquarters, including training facility, safety village and specialized locations (Tables 9-3)
- Vehicles including patrol cars, vans, specialty vehicles, boats and helicopters (Table 9-4)
- Equipment such as communication and radio infrastructure, data network equipment, computer-aided dispatch and specialized equipment (Table 9-5)

The total funding envelope of \$167,910,231 is determined by applying the historic per capita service level to projected growth over the planning horizon and accounting for opening reserve balance levels and existing debt. Finally, \$106,305,542 is the eligible amount available to new projects after accounting for existing outstanding development charge debt costs for this service.

9.1.3 Benefit to Existing Development Deduction

Benefit to existing deduction applied to facilities, land, vehicles and equipment is summarized as follows:

Facilities	Training facilities, sub-station outlook and district headquarters and expansions involve the establishment of use-specific facilities for functions that are currently being undertaken in York Region. A deduction of 10%, where applicable, has been made to recognize any potential benefit to existing development as a result of improved service. Expansion or replacement of existing buildings will provide some service to existing population.
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Land	Land acquisition is primarily done to service new population with more facilities and equipment. There is a 10% benefit to existing deduction to recognize non-growth related service.
Vehicles	Vehicle costs are incurred through rehabilitation and replacement costs with a growth component included through the addition of new vehicles. The benefit to existing deduction is based on the portion that services the existing total population and employment in 2021 as a share of total population and employment in 2041 (1,877,600 ÷ 2,565,200). Therefore, the benefit to existing deduction is calculated as the non-growth component of 73%.
Equipment	Specialized equipment added for additional staff to support growth has no benefit to existing deduction applied to it. All other equipment includes some supplies to support existing police staff that will provide an improved service to existing population. Following the same methodology as for vehicles, a deduction of 73% is made to recognize any potential benefit to existing population as a result of the added and improved equipment.

9.1.4 Post Period Benefit Deduction

The development charges program consists of 20 years of requirements. No deduction for post period benefit has been made.

9.1.5 Grants, Subsidies and Other Contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

9.1.6 Residential versus Non-Residential Allocation

The allocations are based on the incremental gross population growth and employment requiring new space between 2022 and 2041, as outlined in Table 9-1 below:

**TABLE 9-1
RESIDENTIAL AND NON-RESIDENTIAL ALLOCATION**

	2022 to mid-2041	%
Gross population growth	476,277	74.88
Retail employment growth*	34,259	5.39
IOI employment growth*	124,766	19.62
Hotel employment growth*	777	0.12
Total population and employment*	636,079	100.00

*Note: Employment requiring new space
Numbers may not add due to rounding

Table 9-2

2022 Development Charges Background Study
Police Services - Land
Acres
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Acre)
Owned Sites											
Central Services Building (47 Don Hillock Dr. and 55 Don Hillock Dr.)	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	1,540,000
District #1 (240 Prospect St. Newmarket)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2,420,000
District #1 (429 Harry Walker Parkway South. Newmarket)				3.00	3.00	3.00	3.00	3.00	3.00	3.00	1,980,000
District #1 Existing Debt Share	(1.65)	(1.65)	(1.65)	(1.65)	(1.65)	(1.65)	(1.65)	(1.65)	(1.65)	(1.65)	2,420,000
District #2 (171 Major Mackenzie Drive W. Richmond Hill)	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	1,518,000
District #3 (3527 Baseline Rd. Sutton)	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	55,000
District #4 (2700 Rutherford Rd. Vaughan)	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	2,530,000
District#5 (8700 McCowan Rd. Markham)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	5,500,000
Eqypt Tower Site (Township of Georgina)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	22,000
Training Facility							8.00	8.00	8.00	8.00	660,000
Marine Headquarters									0.90	0.90	1,650,000
Other - Provided Space											
Headquarters (17250 Yonge Street)	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	3,300,000
90 Bales Drive (E. Gwillimbury)	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	660,000
Court Services (50 Eagle Street, Newmarket)	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	2,640,000
Vaughan Mills Substation (Vaughan)	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	3,300,000
Leased Sites											
Yonge and Mulock Centre (Newmarket)	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	3,300,000
Air Support -Hangar #17A and office- (Toronto Buttonville Municipal Airport, Markham, ON)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	2,618,000
Community Resource Centre (Hillcrest Mall, 9350 Yonge St. Richmond Hill, ON)	0.24	0.24	0.24								3,300,000
Community Resource Centre (10720 Yonge Street, #112, Richmond Hill)				0.39	0.39	0.39	0.39	0.39	0.39	0.39	3,300,000
Hope Tower Site (North Maple Reservoir, Vaughan)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	880,000
Safety Village (Stouffville)	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	27,500
King Tower (King)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	110,000
Stouffville Substation	0.07	0.07	0.07	0.30	0.30	0.30	0.30	0.30	0.30	0.30	1,650,000

Table 9-2

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Acre)
King/Schomberg Substation	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	2,200,000
Seized Property Warehouse (Confidential Location)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1,980,000
Peer Support Building (East Gwillimbury)					22.00	22.00	22.00	22.00	22.00		220,000
Peer Support Building (Aurora)										0.65	1,650,000
Total	32.75	32.75	32.75	36.14	58.14	58.14	66.14	66.14	67.04	45.69	1,323

Population and Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	0.0202	0.0197	0.0194	0.0211	0.0333	0.0326	0.0364	0.0357	0.0370	0.0243

10 Year Average	2012-2021
Quantity Standard (acre. per 1,000 capita)	0.0280
Quality Standard (\$ per acre)	\$1,323
Service Standard (\$/1,000 capita)	\$0.04

DC Amount (before adjustments)	20-Year
Gross population and employment requiring new space growth	636,079
\$ per 1,000 Capita	\$0.04
DC Amount (before adjustments)	\$23,541,134

Table 9-3

2022 Development Charges Background Study
Police Services - Facilities
Square Footage
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Sqft)
Owned Sites											
Central Services Building (47 Don Hillock Dr., Aurora)	237,391	237,391	244,255	244,255	244,255	244,255	244,255	244,255	244,255	244,255	467
Central Services Building (47 Don Hillock Dr., Aurora) Existing Debt Share	(38,093)	(38,093)	(38,093)	(38,093)	(38,093)	(38,093)	(38,093)	(38,093)	(38,093)	(38,093)	467
Police Central Services Building - Parking Garage (55 Don Hillock Drive)			168,240	168,240	168,240	168,240	168,240	168,240	168,240	168,240	445
District #1 (240 Prospect St. Newmarket)	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	445
District #1 Existing Debt Share	(24,775)	(24,775)	(24,775)	(24,775)	(24,775)	(24,775)	(24,775)	(24,775)	(24,775)	(24,775)	445
District #2 (171 Major Mackenzie Drive W.Richmond Hill)	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	445
District #3 (3527 Baseline Rd. Sutton)	25,500	25,500	25,500	25,500	26,500	26,500	26,500	26,500	26,500	26,500	445
District #3 (3527 Baseline Rd. Sutton) Existing Debt Share	(13,758)	(13,758)	(13,758)	(13,758)	(13,758)	(13,758)	(13,758)	(13,758)	(13,758)	(13,758)	445
District #4 (2700 Rutherford Rd. Vaughan)	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	445
District #4 (2700 Rutherford Rd. Vaughan) Existing Debt Share	(356)	(356)	(356)	(356)	(356)	(356)	(356)	(356)	(356)	(356)	445
District#5 (8700 McCowan Rd. Markham)	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	445
Safety Village (Stouffville)	10,000	10,000	10,000	10,000	17,533	17,533	17,533	17,533	17,533	17,533	445
Safety Village (Stouffville) Existing Debt Share	(1,874)	(1,874)	(1,874)	(1,874)	(1,874)	(1,874)	(1,874)	(1,874)	(1,874)	(1,874)	445
Training Facility							83,000	83,000	83,000	83,000	615
Training Facility Existing Debt Share							(30,482)	(30,482)	(30,482)	(30,482)	615
Marine Headquarters									8,900	8,900	795
Other - Provided Space											
Headquarters (17250 Yonge Street)1	49,895	49,895	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	339
90 Bales Drive (E. Gwillimbury)	13,598	13,598	13,598	13,598	13,598	13,598	13,598	13,598	13,598	13,598	615
Court Services (50 Eagle Street, Newmarket)	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	339
Vaughan Mills Substation (Vaughan)	949	949	949	949	949	949	949	949	949	949	339
Leased Sites											
Yonge and Mulock Centre (Newmarket)	17,672	17,672	17,672	17,672	20,319	20,319	20,319	20,319	20,319	20,319	339
Air Support -Hangar #19 and office- (Toronto Buttonville Municipal Airport, Markham, ON)	2,094	2,094	2,094	2,094	2,414	2,414	2,414	2,414	2,414	2,414	445

Table 9-3

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Sqft)
Air Support -Hangar #19 and office- (Toronto Buttonville Municipal Airport, Markham, ON) Existing Debt Share	(1,103)	(1,103)	(1,103)	(1,103)	(1,103)	(1,103)	(1,103)	(1,103)	(1,103)	(1,103)	445
Community Resource Centre (Hillcrest Mall, 9350 Yonge St. Richmond Hill, ON)	8,224	8,224	8,224								339
Community Resource Centre (10720 Yonge Street, #112, Richmond Hill)				7,603	7,603	7,603	7,603	7,603	7,603	7,603	339
Stouffville Substation	1,000	1,000	1,000	4,500	4,500	4,500	4,500	4,500	4,500	4,500	445
King/Shomberg Substation	1,000	1,000	1,000	1,000	1,000	1,000	3,000	3,000	3,000	3,000	445
East Gwillimbury/Mount Albert Substation	1,000	1,000	1,000	1,000	1,000	1,000					445
Seized Property Warehouse (Confidential Location)	9,700	9,700	9,700	9,700	9,700	9,700	9,700	9,700	9,700	9,700	445
Peer Support Building (East Gwillimbury)					3,000	3,000	3,000	3,000	3,000	0	615
Peer Support Building (Aurora)										6,946	445
Total	457,565	457,565	587,774	590,653	605,153	605,153	658,670	658,670	667,570	671,516	\$455.43

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per Capita Standard	0.2829	0.2755	0.3490	0.3447	0.3463	0.3395	0.3621	0.3556	0.3689	0.3576

10 Year Average	2012-2021
Quantity Standard (Sqft per Capita)	0.3382
Quality Standard (\$ per Sqft)	\$455
Service Standard (\$ per Capita)	\$154.04

DC Amount (before adjustments)	20-Year
Gross population and employment requiring new space growth	636,079
\$ per Capita	\$154.04
DC Amount (before adjustments)	\$97,982,446

Table 9-4

2022 Development Charges Background Study
Police Services - Vehicles
Number of Vehicles
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Vehicle)
Marked 24/7 Equivalent to = or > 7 years	170	173	173	181	177	195	219	211	226	242	47,896
Marked 24/7 Equivalent to = or > 7 years Existing Debt Share	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	47,896
Unmarked & Vans - All < 7 years	202	203	206	215	219	198	200	209	213	203	25,945
Specialty Vehicles:											
Operation Specialty	22	24	28	22	41	38	35	23	17	15	45,942
Operational Support	69	78	75	72	81	78	78	59	52	49	39,468
Command Post	1	1	1	1	1	1	2	2	2	2	398,836
Boats	8	8	8	8	8	7	7	6	6	7	257,913
Tractor	1	1	1	2	2	3	3	3	3	3	28,617
Motorcycle	14	12	14	13	18	18	18	17	17	17	29,347
Helicopter	1	1	1	1	1	1	1	1	1	1	6,250,000
Tactical Support Vehicle	1	1	1	1	1	1	1	1	1	2	376,144
Vehicle Equipment ¹	468	481	487	495	528	538	562	530	536	539	11,214
Vehicle Equipment ¹ Existing Debt Share	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	11,214
Total	453	466	472	480	513	504	528	496	502	505	\$6,648,572

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	0.2802	0.2807	0.2804	0.2802	0.2937	0.2829	0.2904	0.2679	0.2775	0.2691

10 Year Average	2012-2021
Quantity Standard (Veh. Per 1,000 Capita)	0.2803
Quality Standard (\$ per vehicle)	\$66,983
Service Standard (\$/Capita)	\$18.77

Notes:

1. Vehicle Equipment includes specialized equipment to outfit all police vehicles for use. Value included in calculation of quality standard.

DC Amount (before adjustments)	20-Year
Gross population and employment requiring new space growth	636,079
\$ per Capita	\$18.77
DC Amount (before adjustments)	\$11,942,139

Table 9-5

2022 Development Charges Background Study
Police Services - Equipment
Dollar Value of Equipment
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Voice Communication User Gear	\$ 4,235,271	\$ 4,235,271	\$ 4,235,271	\$ 6,260,271	\$ 3,324,275	\$ 3,324,275	\$ 3,324,275	\$ 2,483,677	\$ 2,483,677	\$ 2,483,677
Voice Communication Infrastructure & Equipment	\$ 11,653,500	\$ 11,653,500	\$ 21,103,889	\$ 23,300,889	\$ 23,642,080	\$ 23,961,029	\$ 23,961,029	\$ 24,285,474	\$ 24,561,461	\$ 24,946,883
Backup Radio Infrastructure & Operations Centre	\$ 379,716	\$ 379,716	\$ 379,716	\$ 379,716	\$ 116,093	\$ 151,200	\$ 151,200	\$ 151,200	\$ 151,200	\$ 151,200
Data Network Equipment	\$ 13,063,783	\$ 14,148,760	\$ 16,174,310	\$ 16,174,310	\$ 19,416,827	\$ 16,435,224	\$ 18,798,305	\$ 18,979,090	\$ 22,542,784	\$ 20,797,607
External Assets - Fire Services	\$ 1,046,298	\$ 1,046,298	\$ 1,046,298	\$ 1,046,298	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Force Equipment	\$ 3,299,547	\$ 3,647,727	\$ 4,101,788	\$ 4,101,788	\$ 2,540,987	\$ 2,733,481	\$ 2,913,564	\$ 3,542,578	\$ 4,428,977	\$ 4,656,835
Generators	\$ 194,374	\$ 196,867	\$ 196,867	\$ 196,867	\$ 169,788	\$ 169,788	\$ 169,788	\$ 169,788	\$ 155,898	\$ 155,898
Computer Aided Dispatch/Records Mgmt System	\$ 3,762,000	\$ 3,762,000	\$ 3,762,000	\$ 3,762,000	\$ 3,762,000	\$ 3,762,000	\$ 3,762,000	\$ 3,762,000	\$ 3,762,000	\$ 3,762,000
Telephone Infrastructure & Equipment	\$ 530,527	\$ 530,527	\$ 530,527	\$ 530,527	\$ 530,527	\$ 530,527	\$ 778,954	\$ 778,954	\$ 778,954	\$ 778,954
Specialized Equipment	\$ 12,381,448	\$ 13,167,330	\$ 14,396,772	\$ 14,396,772	\$ 19,206,931	\$ 15,416,271	\$ 15,686,563	\$ 16,600,610	\$ 17,912,349	\$ 16,445,838
Specialized Equipment Existing Debt Share	-\$ 1,239,755	-\$ 1,239,755	-\$ 1,239,755	-\$ 1,239,755	-\$ 1,239,755	-\$ 1,239,755	-\$ 1,239,755	-\$ 1,239,755	-\$ 1,239,755	-\$ 1,239,755
Employee Scheduling System			\$ 356,654	\$ 356,654	\$ 356,654	\$ 356,654	\$ 356,654	\$ 447,814	\$ 447,814	\$ 447,814
Total	\$ 49,306,709	\$ 51,528,242	\$ 65,044,338	\$ 69,266,338	\$ 71,826,407	\$ 65,600,694	\$ 68,662,576	\$ 69,961,430	\$ 75,985,359	\$ 73,386,952

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per Capita Standard	30.49	31.03	38.62	40.42	41.10	36.80	37.75	37.77	41.99	39.09

10 Year Average	2012-2021
Quantity Standard	37.51
Quality Standard	1.00
Service Standard (\$perCapita)	\$37.51

DC Amount (before adjustments)	20-Year
Gross population and employment requiring new space growth	636,079
\$ per Capita	\$37.51
DC Amount (before adjustments)	\$23,857,422

Table 9-6

2022 Development Charges Background Study
Police Services
Growth related capital costs

10-Year Historic Level of Service Cap	
Land	23,541,134
Facilities	97,982,446
Vehicles	11,942,139
Equipment	23,857,422
Opening reserve adjustment	10,587,091
Funding Envelope	167,910,231
Less Existing debt principal	61,604,690
Total eligible amount for new projects	106,305,542

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											74.88%	Retail	Industrial/ Office/ Institutional
Facilities													
1	District/Major Renovations	2032-2041	53,500,000	0	53,500,000	5,350,000	48,150,000	31,260,807	16,889,193	23,407,124	1,683,582	6,131,974	38,128
2	Consolidated Leased Premises	2022-2026	10,000,000	0	10,000,000	1,000,000	9,000,000	5,843,142	3,156,858	4,375,163	314,688	1,146,163	7,127
3	#1 District Multi-Function	2022-2026	3,600,000	0	3,600,000	360,000	3,240,000	2,103,531	1,136,469	1,575,059	113,288	412,619	2,566
4	240 Prospect Renovation	2022-2026	2,050,000	0	2,050,000	205,000	1,845,000	1,197,844	647,156	896,908	64,511	234,963	1,461
5	PS Leasehold Improvements	2022-2041	3,056,000	0	3,056,000	305,600	2,750,400	1,785,664	964,736	1,337,050	96,169	350,268	2,178
6	Renovations/Major Equipment to Existing Facilities	2022-2041	24,960,000	0	24,960,000	19,968,000	4,992,000	3,240,996	1,751,004	2,426,757	174,547	635,739	3,953
	Subtotal Facilities		97,166,000	0	97,166,000	27,188,600	69,977,400	45,431,983	24,545,417	34,018,062	2,446,784	8,911,726	55,412
Vehicles													
7	Vehicles	2022-2041	108,496,000	0	108,496,000	79,202,080	29,293,920	19,018,724	10,275,196	14,240,632	1,024,272	3,730,624	23,196
8	Air Operations	2022-2041	14,008,000	0	14,008,000	10,225,840	3,782,160	2,455,522	1,326,638	1,838,619	132,245	481,664	2,995
9	Marine Boats	2027-2041	3,334,000	0	3,334,000	2,433,820	900,180	584,431	315,749	437,604	31,475	114,639	713
10	Air Operations- Helicopter Replacement	2022-2026	7,050,000	0	7,050,000	5,146,500	1,903,500	1,235,824	667,676	925,347	66,557	242,414	1,507
	Subtotal Vehicles		132,888,000	0	132,888,000	97,008,240	35,879,760	23,294,502	12,585,258	17,442,201	1,254,548	4,569,341	28,411
Equipment													
11	Business Intelligence	2022-2041	3,480,000	0	3,480,000	2,547,907	932,093	605,150	326,943	453,118	32,591	118,703	738
12	Computer Aided Dispatch - Records Mgmt System	2022-2026	3,700,000	0	3,700,000	2,701,000	999,000	648,589	350,411	485,643	34,930	127,224	791
13	Connected Officer	2022-2041	20,034,000	0	20,034,000	14,624,820	5,409,180	3,511,845	1,897,335	2,629,561	189,134	688,867	4,283
14	Data Governance and Retention Management	2022-2041	2,000,000	0	2,000,000	1,460,000	540,000	350,588	189,412	262,510	18,881	68,770	428
15	Digital Evidence Management & In-Car Cam	2022-2041	21,695,000	0	21,695,000	15,837,350	5,857,650	3,803,009	2,054,641	2,847,575	204,815	745,980	4,638
16	Disaster Recovery Plan	2022-2041	1,232,000	0	1,232,000	899,360	332,640	215,963	116,677	161,706	11,631	42,362	263
17	Employee Scheduling	2022-2041	560,000	0	560,000	408,800	151,200	98,165	53,035	73,503	5,287	19,256	120
18	Portable and Mobile User Gear	2022-2041	8,208,000	0	8,208,000	5,991,840	2,216,160	1,438,815	777,345	1,077,340	77,489	282,231	1,755
19	Radio System	2022-2031	27,880,000	0	27,880,000	20,352,400	7,527,600	4,887,204	2,640,396	3,659,387	263,205	958,651	5,961
20	Specialized Equipment - Closed-Circuit / Witness Rooms	2022-2041	1,672,000	0	1,672,000	1,220,560	451,440	293,092	158,348	219,458	15,785	57,492	357
21	Specialized Equipment - Forensic Equipment	2022-2041	6,355,000	0	6,355,000	4,639,150	1,715,850	1,113,995	601,855	834,125	59,995	218,516	1,359
22	Specialized Equipment - Growth Staff	2022-2041	26,536,000	0	26,536,000	0	26,536,000	17,228,178	9,307,822	12,899,926	927,841	3,379,399	21,013

Table 9-6

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential	Non-Residential Share		
											Retail	Industrial/ Office/ Institutional	Hotel
										74.88%	5.39%	19.62%	0.12%
23	Specialized Equipment - Road Safety	2022-2041	1,888,000	0	1,888,000	1,378,240	509,760	330,956	178,804	247,809	17,824	64,919	404
24	Specialized Equipment - Robotics / Support Services	2022-2041	1,676,000	0	1,676,000	1,223,480	452,520	293,793	158,727	219,983	15,823	57,629	358
25	Specialized Equipment - Technical Investigations	2022-2041	4,400,000	0	4,400,000	3,212,000	1,188,000	771,295	416,705	577,522	41,539	151,294	941
26	Specialized Equipment - Telephone	2027-2041	1,400,000	0	1,400,000	1,022,000	378,000	245,412	132,588	183,757	13,217	48,139	299
27	Talent Management	2022-2041	6,000,000	0	6,000,000	4,380,000	1,620,000	1,051,765	568,235	787,529	56,644	206,309	1,283
28	YRP Net Rewrite	2022-2041	610,000	0	610,000	445,300	164,700	106,929	57,771	80,065	5,759	20,975	130
	Subtotal Equipment		139,326,000	0	139,326,000	82,344,207	56,981,793	36,994,742	19,987,051	27,700,517	1,992,388	7,256,716	45,121
Land													
29	Land Bank Acquisition	2032-2036	1,000,000	0	1,000,000	100,000	900,000	584,314	315,686	437,516	31,469	114,616	713
	Subtotal Land		1,000,000	0	1,000,000	100,000	900,000	584,314	315,686	437,516	31,469	114,616	713
Total			370,380,000	0	370,380,000	206,641,047	163,738,953	106,305,542	57,433,412	79,598,296	5,725,190	20,852,399	129,657

9.2 Waste Diversion

9.2.1 Overview

Approved by Council in April 2020, an update to York Region's Waste Management Master Plan [SM4RT Living Plan](#) continues to move the Region to a more sustainable circular economy that emphasizes waste reduction, repair, reuse and resource recovery to ensure materials are kept in circulation, maximizing economic value and environmental protection.

Diversion from landfill is a key performance measure under the sustainable environment priority in the [2019 to 2023 Strategic Plan](#).

The Region provides waste diversion services through a number of projects, including Source Separated Organics Facility project and Expanded Diversion Capacity project that includes growth studies to identify additional infrastructure requirements resulting from the Waste Management Master Plan.

Source Separated Organics Facility project covers research into processing technologies applicable to York Region's waste stream, which in the long term will inform the construction of a Region-owned facility. The food waste diversion program represents at least half of the total diversion tonnage.

9.2.2 Program Description

The 20-year Waste Diversion capital program, as noted in Table 9-10, consists of:

Facilities	Building structures to expand diversion capacity and add a source-separated organic facility
Growth Studies	A study to explore new waste management needs as part of the Waste Diversion Master Plan review

9.2.3 Level of Service

The 10-year historical level of service is comprised of the following:

- Region-owned and leased land including depots, transfer stations, and environmental centres' locations, and contracted land including Source-Separated Organics and Yard Waste locations (Table 9-7)
- Existing owned and leased facilities, including recycling facilities, scale buildings, community environmental centres, and household hazardous waste depots (Table 9-8)
- Region-owned and leased equipment such as hydraulic power washers, scales, baler and feeder systems, platforms, compactors, and various sorting equipment; and contracted equipment within the Source-Separated Organics and yard waste facilities (Table 9-9)

Portions of the service related to landfill sites and servicing have been removed from the calculation.

The total funding envelope of \$70,978,684 is determined by applying the historic per capita service level to projected growth over the planning horizon and accounting for opening reserve balance levels and existing debt. Finally, \$70,978,684 is the eligible amount available to new projects after accounting for existing outstanding development charge debt costs for this service.

9.2.4 Benefit to Existing Development Deduction

Expanding Diversion Capacity project has a 33% benefit-to-existing deduction based on the share of population and employment growth. The Source-Separated Organics facility has a 72% deduction, based on the share of population growth during the planning horizon, considering that the facility will service only the residents of York Region.

9.2.5 Post Period Benefit Deduction

The Waste Diversion program is related to development occurring over the 2022-2041 planning period. For the Diversion Capacity Expansion project, where a benefit will be provided to development occurring beyond 2041, a reduction of 37% has been applied. These costs will be considered for recovery under future development charges.

9.2.6 Grants, Subsidies and Other Contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

9.2.7 Residential versus Non-residential Allocation

For this background study, all waste diversion projects have been identified as 100% residential. This is because these projects are expected to divert residential waste.

Table 9-7

2022 Development Charges Background Study
 Waste Diversion - Land
 Acres
 Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Acre)
Region Owned Land											
HHW Depot East Gwillimbury	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1,210,000
HHW & Georgina Transfer Stn	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	132,000
HHW Depot Vaughan	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	2,530,000
Waste Management Ctr East Gwillimbury @ 83% diversion (based on facility usage)	23.42	23.42	23.42	23.42	23.42	23.42	23.42	23.42	23.42	23.42	1,210,000
CEC McCleary Court @ 20% diversion	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	3,300,000
Region Contracted											
Household Hazardous Waste Depot - Markham Rental	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	2,200,000
Community Environmental Centre - Elgin Mills @ 11.5%	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	3,300,000
Leased Land											
Organics - SSO Facility 1 and 2 weighted average plus Yard Waste	106.52	106.52	106.52	106.52	106.52	106.52	106.52	106.52	106.52	106.52	464,170
Total	148	148	148	148	148	148	148	148	148	148	700,976

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	0.0913	0.0890	0.0877	0.0862	0.0845	0.0829	0.0812	0.0798	0.0816	0.0787

10 Year Average	2012-2021
Quantity Standard (Sqft per 1,000 Capita)	0.0843
Quality Standard (\$ per Acre)	\$700,976
Service Standard (\$ per Capita)	\$59.09

DC Amount (before adjustments)	20 Year
Gross population increase	476,277
\$ per Capita	\$59.09
DC Amount (before adjustments)	\$28,141,624

Table 9-8

2022 Development Charges Background Study
Waste Diversion - Facilities
Square Footage
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Sqft)
Region Owned											
Municipal Recycling Facility / MRF and scale buildings at 83%(base on sq footage of MRF)- East Gwillimbury	78,317	78,317	78,317	78,317	78,317	78,317	78,317	78,317	78,317	78,317	376
Georgina Transfer Station at 10% diversion	51	51	51	51	51	51	27	27	27	27	4,570
Community Environmental Centre - McCleary Ct, Vaughan Building at 20% diversion	4,308	4,308	4,308	4,308	4,308	4,308	4,308	4,308	4,308	4,308	508
Community Environmental Centre - Elgin Mills, Richmond Hill at 12% diversion	1,795	1,795	1,795	1,795	1,795	1,795	1,795	1,795	1,795	1,795	1,184
Household Hazardous Waste Depot - Georgina (Outbuilding)	512	512	512	512	512	512	512	512	512	512	2,942
Household Hazardous Waste Depot - East Gwillimbury	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,606
Household Hazardous Waste Depot - Markham	530	530	530	530	530	530	530	530	530	530	1,084
Household Hazardous Waste Depot - Vaughan	530	530	530	530	530	530	530	530	530	530	626
Region Contracted											
Organics - SSO and Yard Waste	114,338	119,610	118,890	120,207	120,207	120,207	120,207	120,207	120,207	120,207	314
Total	201,973	207,245	206,525	207,842	207,842	207,842	207,818	207,818	207,818	207,818	\$369

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per Capita Standard	0.1249	0.1248	0.1226	0.1213	0.1189	0.1166	0.1143	0.1122	0.1148	0.1107

10 Year Average	2012-2021
Quantity Standard (Sqft per Capita)	0.1181
Quality Standard (\$ per Sqft)	\$369
Service Standard (\$ per Capita)	\$43.57

DC Amount (before adjustments)	20 Year
DC Amount (before adjustments)	476,277
\$ per Capita	\$43.57
DC Amount (before adjustments)	\$20,751,590

Table 9-9

2022 Development Charges Background Study
Waste Diversion - Equipment
Number of Items
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Equipment)
Region Owned											
CEC Elgin Mills @ 11.5% - Scales	0	0	0	0	0	0	1	1	1	1	34,104
CEC Elgin Mills @ 11.5% - Scales	1	1	1	1	1	1	1	1	1	1	35,221
CEC Elgin Mills @ 11.5% - Furniture and Fixtures	1	1	1	1	1	1	1	1	1	1	2,703
CEC Elgin Mills @ 11.5% - Roll-off Bins	1	1	1	1	1	1	1	1	1	1	4,425
CEC Elgin Mills @ 11.5% - Scale Hardware	0	1	1	1	1	1	1	1	1	1	1,505
GTS @ 10% - Compactors	0	0	1	1	1	1	1	1	1	1	47,184
GTS @ 10% - Fall Protection System	0	1	1	1	1	1	1	1	1	1	2,447
GTS @ 10% - Hydraulic Power Washer	1	1	1	1	1	1	1	1	1	1	2,669
GTS @ 10% - Radiation Detector	0	0	1	1	1	1	1	1	1	1	2,068
GTS @ 10% - Scale Hardware	1	1	1	1	1	1	1	1	1	1	2,347
GTS @ 10% - Scale	0	0	0	0	0	0	1	1	1	1	9,845
GTS @ 10% - HW&SW Scale	0	0	0	0	0	0	1	1	1	1	4,877
CEC MCC Scale	0	0	0	0	0	1	1	1	1	1	144,645
CEC Vaughan POS	1	1	1	1	1	1	1	1	1	1	58,809
CEC MCC Scale	1	1	1	1	1	1	1	1	1	1	84,428
CEC MCC Scale	0	1	1	1	1	1	1	1	1	1	23,471
MRF - Baler	1	1	1	1	1	1	1	1	1	1	946,725
MRF - Baler/Feeder System	1	1	1	1	1	1	1	1	1	1	2,820,739
MRF - Compactors	1	1	1	1	1	1	1	1	1	1	526,751
MRF - Conveyor to return containers	1	1	1	1	1	1	1	1	1	1	185,963
MRF - Infeed Sorting Residue Conv	1	1	1	1	1	1	1	1	1	1	4,792,718
MRF - Instrumentation Controls	1	1	1	1	1	1	1	1	1	1	2,532,302
MRF - Mixed Paper Bypass & Scalp Scree	0	0	0	0	0	0	0	0	1	1	1,288,061
DC Amount (before adjustments)	0	0	0	1	1	1	1	1	1	1	1,742,981
MRF - Mixed Paper Sorting	1	1	1	1	1	1	1	1	1	1	3,030,314
MRF - Newspaper by-pass conveyor	1	1	1	1	1	1	1	1	1	1	355,022
MRF - Newspaper Screens	1	1	1	1	1	1	1	1	1	1	845,289
MRF - Optical Sorting Equipment	1	1	1	1	1	1	1	1	1	1	12,654,094
MRF - Plastic Perforator	1	1	1	1	1	1	1	1	1	1	456,457
MRF - Platforms Stairs	1	1	1	1	1	1	1	1	1	1	1,215,850
MRF - Power Distribution System	1	1	1	1	1	1	1	1	1	1	693,138
MRF - Radiation Detector	1	1	1	1	1	1	1	1	1	1	56,644
MRF - SCADA System w/ Controls	1	1	1	1	1	1	1	1	1	1	1,267,935

Table 9-9

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Equipment)
WMC Scales - Diversion Portion @ 83%	1	1	1	1	1	1	1	1	1	1	163,132
MRF - Shafts on Finishing Screens	1	1	1	1	1	1	1	1	1	1	160,605
MRF - Sort Room HVAC	0	0	0	0	1	1	1	1	1	1	40,075
MRF - SW Signage	0	0	0	1	1	1	1	1	1	1	28,063
Region Contracted											
Organics - SSO Facility 1 and 2 weighted average plus Yard Waste facility	2	2	2	2	2	2	2	2	2	2	20,618,709
Total	26	29	31	33	34	35	38	38	39	39	2,227,935

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1000 Capita Standard	0.0161	0.0175	0.0184	0.0193	0.0195	0.0196	0.0209	0.0205	0.0216	0.0208

10 Year Average	2012-2021
Quantity Standard (Number of Items per 1,000 Capita)	0.0194
Quality Standard (\$ per Equipment)	\$2,227,935
Service Standard (\$ per Capita)	\$43.23

DC Amount (before adjustments)	20 Years
Gross population increase	476,277
\$ per Capita	\$43.23
DC Amount (before adjustments)	\$20,588,893

Table 9-10

2022 Development Charges Background Study
Waste Diversion
Growth related capital costs

10-Year Historic Level of Service Cap	
Land	28,141,624
Facilities	20,751,590
Vehicles	0
Equipment	20,588,893
Opening reserve adjustment	1,496,577
Funding Envelope	70,978,684
Less Existing debt principal	0
Total eligible amount for new projects	70,978,684

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential 100%	Non-Residential Share		
											Retail 0%	Industrial/ Office/ Institutional 0%	Hotel 0%
Facilities													
1	Expanded Diversion Capacity	2032-2036	30,996,000	0	30,996,000	10,341,438	20,654,562	13,097,716	7,556,846	13,097,716	0	0	0
2	Source Separated Organics Facility	2022-2031	98,791,000		98,791,000	71,129,520	27,661,480	27,661,480	0	27,661,480	0	0	0
	Subtotal Facilities		129,787,000	0	129,787,000	81,470,958	48,316,042	40,759,196	7,556,846	40,759,196	0	0	0
Study													
3	New Waste Management Initiatives	2022-3036	1,326,000		1,326,000	0	1,326,000	1,326,000	0	1,326,000	0	0	0
	Subtotal Studies		1,326,000	0	1,326,000	0	1,326,000	1,326,000	0	1,326,000	0	0	0
	Total		131,113,000	0	131,113,000	81,470,958	49,642,042	42,085,196	7,556,846	42,085,196	0	0	0

9.3 Public Works

9.3.1 Program Description

The 20-year Public Works program (Tables 9-17) consists of:

Facilities	Roads traffic operations main and satellite yards and maintenance facilities
Fleet	New additions to the fleet and electric fleet infrastructure; snow-melting and off-road equipment, trailers, loaders, and mowers

9.3.2 Level of Service

The 10-year historical level of service is based on the replacement cost for the following:

- Land and buildings including Operations Centre, patrol yards and salt/sand storage facilities (Tables 9-13 and 9-14)
- Fleet of service trucks, street sweepers and dump trucks (Table 9-15)

Equipment inventory both owned and contracted (Table 9-16)

The total funding envelope of \$105,653,242 is determined by applying the historic per capita service level to projected growth over the planning horizon and accounting for opening reserve balance levels and existing debt. Finally, \$104,873,013 is the eligible amount available to new projects after accounting for existing outstanding development charge debt costs for this service.

9.3.3 Benefit to Existing Development Deduction

Benefit to existing deduction was applied to facilities, vehicles and equipment using the same methodology as in the Region's 2017 DC Bylaw. Vehicles and equipment have no deduction as York Region is simply expanding its resources to provide the same service level in meeting the growth-related needs. For facilities, only costs net of replacement value have been included resulting in a 5% BTE deduction:

Southeast Patrol Area Works Yard (Main and Satellite Facilities)	5% deduction
SW/Central Roads Maintenance Facilities and Yards	5% deduction
North Existing and Satellite Yards	5% deduction
Various Maintenance Facility Upgrades	5% deduction
Portable Snow Melting Facilities	No deduction
Electric Fleet Infrastructure	No deduction
Fleet New Additions	No deduction

9.3.4 Post Period Benefit Deduction

The Public Works program is related to development occurring over the 2022-2041 planning horizon with level of service cap affecting in-period cost recovery. Any exceeding amount will be considered for recovery under future DC bylaws. No deduction for post period benefit has been made.

9.3.5 Grants, Subsidies and Other Contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

9.3.6 Residential versus Non-Residential Allocation

The allocations are based on the net increment in population and employment between 2022 and 2041, as outlined in Table 9-11 below:

**TABLE 9-11
INCREMENTAL GROWTH FOR POPULATION AND EMPLOYMENT**

	2022 to mid-2041	%
Gross population growth	476,277	74.88
Employment growth requiring new space	159,802	25.12
Total	636,079	100.00

9.3.7 Non-Residential Cost Allocation

For the purpose of rate calculation, the non-residential share of the total capital cost is further allocated between retail, IOI and hotel uses. The cost allocation is determined based on the share of trips generated using the Institute of Transportation Engineers (ITE) Trip Generation rates.

Trip generation rates are used by transportation professionals for estimating the number of trips generated by specific types of developments or land uses. A trip generation rate is the number of trips (vehicle trips, pedestrian trips, and/or transit trips) that can be expected to access and exit a site over a given period of time, expressed over an independent variable, such as trips per 1,000 sq. ft. gross floor area, or per hotel suite. For each non-residential sector, an average trip generation rate was developed based on a sample of land use categories.

To capture the travel characteristics of all land use categories, an average of the AM peak hour and PM peak hour trip generation rate was estimated. Furthermore, consistent with industry practices, retail trip rates were further reduced by 20% to accommodate “pass-by” trips. Pass-by trips are defined as trips that would have traveled on a street adjacent to a retail center even if the retail was not constructed.

Where data is available, the peak of the land use (the trips generated for each land use during the peak period of the land use) was used in the analysis.

Using this methodology, the non-residential share of the costs is allocated to the three land uses as outlined in Table 9-12 below.

TABLE 9-12
NON-RESIDENTIAL LAND USE (BASED ON TRIP GENERATION)

Non-residential Land Use	Allocation of DC-Eligible Costs
Retail	35.60%
Industrial, Office, Institutional	63.74%
Hotel	0.66%
Total	100.00%

Table 9-13

2022 Development Charges Background Study
 Public Works - Land
 Acres
 Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Acre)
SE Main Yard	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	1,518,000
SE Satellite Yard	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	1,518,000
SW Main Yard	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	2,530,000
SW Satellite Yard										20.0	1,776,500
Central Main Yard	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	550,000
Central Snow Disposal Facility	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	1,980,000
North Main Yard	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	55,000
Road Ops Maintenance Yard	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1,600,000
Total	71	71	71	71	71	71	71	71	71	91	1,253,475

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	0.0439	0.0428	0.0422	0.0415	0.0406	0.0399	0.0391	0.0383	0.0393	0.0485

10 Year Average	2012-2021
Quantity Standard (Acre per 1,000 Capita)	0.0416
Quality Standard (\$ per Acre)	\$1,253,475
Service Standard (\$ per 1,000 Capita)	\$52,139.08

DC Amount (before adjustments)	20 Year
Gross population increase and employment requiring new space	636,079
\$ per 1,000 Capita	\$52,139.08
DC Amount (before adjustments)	\$33,164,575

Table 9-14

2022 Development Charges Background Study
Public Works - Facilities
Square Footage
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Sqft)
SE Main Yard Office	7,650	7,650	7,650	7,650	7,650	7,650	7,650	7,650	7,650	7,650	615
SE Main Office Yard Existing Debt Share	(1,269)	(1,269)	(1,269)	(1,269)	(1,269)	(1,269)	(1,269)	(1,269)	(1,269)	(1,269)	615
SE Main Yard Salt Storage	4,370	4,370	4,370	4,370	4,370	4,370	4,370	4,370	4,370	4,370	350
SE Satellite Yard Salt Storage Only	14,682	14,682	14,682	14,682	14,682	14,682	14,682	14,682	14,682	14,682	350
SW Main Yard Office	13,724	13,724	13,724	13,724	13,724	13,724	13,724	13,724	13,724	13,724	615
SW Main Yard Salt Storage	21,474	21,474	21,474	21,474	21,474	21,474	21,474	21,474	21,474	21,474	350
Central Main Yard Office	16,888	16,888	16,888	16,888	16,888	16,888	16,888	16,888	16,888	16,888	615
Central Main Yard Salt Storage	10,764	10,764	10,764	10,764	10,764	10,764	10,764	10,764	10,764	10,764	350
North Main Yard Office	8,622	8,622	8,622	8,622	8,622	8,622	8,622	8,622	8,622	8,622	445
North Main Yard Salt Storage	26,790	26,790	26,790	26,790	26,790	26,790	26,790	26,790	26,790	26,790	350
Road Ops Maintenance Yard	8,922	8,922	8,922	8,922	8,922	8,922	8,922	8,922	8,922	8,922	615
Total	132,617	132,617	132,617	132,617	132,617	132,617	132,617	132,617	132,617	132,617	448

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per Capita Standard	0.0820	0.0799	0.0787	0.0774	0.0759	0.0744	0.0729	0.0716	0.0733	0.0706

10 Year Average	2012-2021
Quantity Standard (Sqft per Capita)	0.0757
Quality Standard (\$ per Sqft)	\$448
Service Standard (\$ per Capita)	\$33.89

DC Amount (before adjustments)	20 Year
DC Amount (before adjustments)	636,079
\$ per Capita	\$33.89
DC Amount (before adjustments)	\$21,557,597

Table 9-15

2022 Development Charges Background Study
 Public Works - Vehicles
 Number of Vehicles
 Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Vehicle)
Region Owned											
LD Car	26	26	26	26	26	1	1	1	1	1	36,000
LD EV-Hybrid	9	13	13	13	13	23	23	23	23	23	34,000
LD Off Road Equipment	6	8	8	8	8	17	17	17	17	17	25,000
LD Pick-up	90	97	100	105	106	85	85	85	85	85	38,000
LD SUV	15	23	24	24	24	36	36	36	36	36	35,000
LD Van	37	38	40	57	57	93	93	93	93	93	38,000
MD Pick-up 3/4+	17	17	18	20	20	26	26	26	26	26	50,000
MD Stake Truck	11	11	11	11	11	8	8	8	8	8	90,000
MD Van 3/4 +	34	38	38	40	40	27	27	27	27	27	50,000
HD Single Axle Truck	8	8	8	8	8	5	5	5	5	5	240,000
HD Tandem Truck	18	19	19	19	19	24	24	24	24	24	325,000
HD Line Marking Truck	1	1	1	1	1	1	1	1	1	1	800,000
HD Streetsweeper	2	2	2	3	3	3	3	3	3	3	100,000
Dump HD Tri-axle	1	1	1	1	1	0	0	0	0	0	334,011
Dump HD Tandem & S/A	27	27	27	27	27	11	11	11	11	11	283,260
Dump MD Reg or Crew	8	8	8	8	8	10	10	10	10	10	181,758
DC Amount (before adjustments)											
Region Contracted											
Utility Vehicle	4	4	4	4	4	0	0	0	0	0	25,000
Stake/Utility (Med. Duty)	0	0	0	0	0	0	0	0	0	0	50,751
Dump HD Tri-axle	6	6	6	6	6	6	6	6	6	6	334,011
Dump HD Tandem & S/A	55	55	55	55	55	93	93	93	93	93	283,260
Dump MD Reg or Crew	0	0	0	0	0	0	0	0	0	0	181,758
Hydro Excavator	0	0	0	0	0	2	2	2	2	2	600,000
Total	375	402	409	436	437	471	471	471	471	471	118,944

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1000 Capita Standard	0.2319	0.2421	0.2429	0.2544	0.2501	0.2643	0.2590	0.2543	0.2603	0.2509

10 Year Average	2012-2021
Quantity Standard (Vehicles per 1,000 Capita)	0.2510
Quality Standard (\$ per Vehicle)	\$118,944
Service Standard (\$ per Capita)	\$29.85

DC Amount (before adjustments)	20 Year
Gross population increase and employment requiring new space	636,079
\$ per Capita	\$29.85
DC Amount (before adjustments)	\$18,989,846

Table 9-16

2022 Development Charges Background Study
 Public Works - Equipment
 Number of Items
 Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Equipment)
Region Owned											
HD Off Road Equipment	8	11	11	12	12	9	9	9	9	9	200,000
HD Snowmelter	0	0	1	1	1	1	1	1	1	1	340,000
HD Crane Truck	4	4	4	4	5	5	5	5	5	5	260,000
MD Off Road Equipment	16	16	16	16	16	13	13	13	13	13	75,000
Rear Sander	0	2	4	4	4	5	5	5	5	5	95,000
Boulevard Fine Grass Cutting Mowers	0	0	0	0	0	10	10	10	10	10	20,000
Trailer	73	82	88	91	92	113	113	113	113	113	12,000
Region Contracted											
HD Bucket/Boom/Crane	0	0	0	0	0	0	0	0	0	0	300,000
Graders	1	1	1	1	4	6	6	6	6	6	375,000
Sweepers	1	1	1	1	6	4	4	4	4	4	285,620
Tractor	1	1	1	1	4	0	0	0	0	0	85,000
Loaders	4	4	4	4	7	0	0	0	0	0	375,000
MD Bucket/Boom/Crane	1	1	1	1	0	0	0	0	0	0	300,000
Trailer	0	0	0	0	0	0	0	0	0	0	18,884
DC Amount (before adjustments)	3	3	3	3	2	2	2	2	2	2	1,180,249
Rubber Tire Backhoe	0	0	0	0	2	0	0	0	0	0	375,000
Sign	0	0	0	0	0	0	0	0	0	0	300,000
Grass Cutting Tractor (One-Swath)	0	0	0	0	12	1	1	1	1	1	25,000
Plow	0	0	0	0	81	0	0	0	0	0	360,000
Flusher Truck (Dump Truck)	0	0	0	0	0	2	2	2	2	2	190,000
String Trimmers	0	0	0	0	0	16	16	16	16	16	500
Boulevard Fine Grass Cutting Mowers	0	0	0	0	0	12	12	12	12	12	22,000
6" inch trash pump with trailer	0	0	0	0	0	1	1	1	1	1	15,000
Asphalt Roller (2 to 6 tonnes)	0	0	0	0	0	4	4	4	4	4	60,000
Backhoe with attachments	0	0	0	0	0	2	2	2	2	2	135,000
Skidsteer with attachments	0	0	0	0	0	4	4	4	4	4	65,000
Miscellaneous	0	0	0	0	10	0	0	0	0	0	25,965
Total	112	126	135	139	258	210	210	210	210	210	89,339

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	0.0693	0.0759	0.0802	0.0811	0.1476	0.1178	0.1155	0.1134	0.1161	0.1118

10 Year Average	2012 - 2021
Quantity Standard (Number of Items per 1,000 Capita)	0.1029
Quality Standard (\$ per Equipment)	\$89,339
Service Standard (\$ per Capita)	\$9.19

DC Amount (before adjustments)	20 Year
Gross population increase and employment requiring new space	636,079
\$ per Capita	\$9.19
DC Amount (before adjustments)	\$5,845,175

Table 9-17

2022 Development Charges Background Study
Public Works
Growth related capital costs

10-Year Historic Level of Service Cap	
Land	33,164,575
Facilities	21,557,597
Vehicles	18,989,846
Equipment	5,845,175
Opening reserve adjustment	26,096,048
Funding Envelope	105,653,242
Less Existing debt principal	780,229
Total eligible amount for new projects	104,873,013

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Residential 74.88%	Non-Residential Share		
											Retail 8.94%	Industrial/ Office/ Institutional 16.01%	Hotel 0.17%
Growth Fleet Roads													
1	Electric Fleet Infrastructure	2022-2031	1,603,000	0	1,603,000	0	1,603,000	633,754	969,246	474,535	56,678	101,489	1,051
2	Central Snow Management Facility	2022-2026	300,000	0	300,000	0	300,000	118,606	181,394	88,809	10,607	18,994	197
3	Fleet New Additions	2022-2041	9,636,000	0	9,636,000	0	9,636,000	3,809,638	5,826,362	2,852,539	340,707	610,073	6,319
Subtotal Growth Fleet Roads			11,539,000	0	11,539,000	0	11,539,000	4,561,998	6,977,002	3,415,883	407,993	730,555	7,567
Growth Facilities Roads													
4	Various Maintenance Facility Upgrades	2022-2041	6,757,000	0	6,757,000	337,850	6,419,150	2,537,841	3,881,309	1,900,257	226,966	406,408	4,210
5	Central Main Yard	2022-2026	4,434,000	0	4,434,000	221,700	4,212,300	1,665,353	2,546,947	1,246,964	148,937	266,688	2,762
6	Central Satellite Yard	2027-2031	39,748,000	0	39,748,000	1,987,400	37,760,600	14,928,831	22,831,769	11,178,246	1,335,128	2,390,693	24,763
7	North Existing Yard	2022-2026	5,803,000	0	5,803,000	290,150	5,512,850	2,179,531	3,333,319	1,631,965	194,922	349,029	3,615
8	North Satellite Yard	2037-2041	33,945,000	0	33,945,000	1,697,250	32,247,750	12,749,299	19,498,451	9,546,280	1,140,207	2,041,664	21,148
9	Southeast Main Yard	2022-2026	60,220,000	0	60,220,000	3,011,000	57,209,000	22,617,847	34,591,153	16,935,543	2,022,779	3,622,007	37,518
10	Southeast Main Yard - Phase 2 (10988/10990 Warden Avenue)	2027-2036	17,718,000	0	17,718,000	885,900	16,832,100	6,654,650	10,177,450	4,982,796	595,145	1,065,671	11,039
11	Southeast Satellite Yard	2032-2036	60,226,000	0	60,226,000	3,011,300	57,214,700	22,620,100	34,594,600	16,937,231	2,022,981	3,622,368	37,522
12	Southwest Main Yard	2022-2026	2,781,000	0	2,781,000	139,050	2,641,950	1,044,507	1,597,443	782,095	93,413	167,267	1,733
13	Southwest Satellite Yard	2022-2031	35,446,000	0	35,446,000	1,772,300	33,673,700	13,313,055	20,360,645	9,968,404	1,190,625	2,131,944	22,083
Subtotal Growth Facilities Roads			267,078,000	0	267,078,000	13,353,900	253,724,100	100,311,015	153,413,085	75,109,781	8,971,104	16,063,738	166,393
Total			278,617,000	0	278,617,000	13,353,900	265,263,100	104,873,013	160,390,087	78,525,663	9,379,096	16,794,293	173,960

9.4 Housing Services

9.4.1 Program Description

Community housing is a significant and critical component of the housing system in York Region. The [2022 Community and Health Services 10-year capital plan](#) and the [Building Better Together: Housing York Inc.'s 2021 to 2024 Strategic Plan](#) include redevelopment projects (Table 9-19) in Unionville and Whitchurch-Stouffville, Nobleview Pines and Armitage Gardens buildings, transitional and emergency housing, pre-development costs, land acquisitions, and a regeneration expansion program.

The program included in the background study supports [the 10-year Housing and Homelessness Plan](#) approved by Council in 2019, the [Building Better Together: Housing York Inc.'s 2021-2024 Strategic Plan](#), and long-term development [projects](#) endorsed by Housing York Inc. Board of Directors in April 2022. The Region is in the process of establishing a Community Housing Development Master Plan, which will service as a strategic, long-term approach to the development of new community housing with the primary objective of increasing the supply of community housing in York Region.

9.4.2 Level of Service

York Region's 10-year historical level of service (Table 9-18) is based on housing units operated by Housing York Inc., as well as a large number of non-profit corporations, co-operatives and other providers. The average replacement cost, inclusive of land value and site servicing has been applied.

The total funding envelope of \$985,203,701 is determined by applying the historic per capita service level to projected growth over the planning horizon and accounting for opening reserve balance levels and existing debt. Finally, \$977,749,209 is the eligible amount available to new projects after accounting for existing outstanding development charge debt costs for this service.

9.4.3 Benefit to Existing Development Deduction

Considering that the demand is largely driven by existing development with an existing wait list for community housing, the growth-related cost has been calculated as 28% of total net capital program, with the benefit to existing share of 72% based on share of population growth to 2041.

9.4.4 Post Period Benefit Deduction

The Housing Services development charges program is entirely related to development occurring over the 2022 to 2041 period. No deduction for post period benefit has been made.

9.4.5 Grants, Subsidies and Other Contributions

Any applicable grants, subsidies and other contributions have been deducted from the development charge eligible costs in accordance with the requirements of the Act. The grants are primarily from other levels of government; however, the amounts vary by project and are not based on a set formula. For the projects included in the 2022 DC Background Study, the applicable grants/ subsidies are approximately \$261 million.

9.4.6 Residential versus Non-Residential Allocation

This program is solely for the benefit of residential development. As such, 100% of the DC-eligible costs have been allocated to residential development.

Table 9-18

2022 Development Charges Background Study
Housing Services - Facilities
Number of Units
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Unit)
Projects Transferred to Region (Pre-2002)											
Annswell Court Foundation	39	39	39	39	39	39	39	39	39	39	389,111
Bethany Co-operative Homes Inc.	68	68	68	68	68	68	68	68	68	68	386,045
Bogart Creek Co-operative Homes Inc.	40	40	40	40	40	40	40	40	40	40	382,979
Branch 414 Legion Village Non-Profit Housing Corp.	30	30	30	30	30	30	30	30	30	30	389,111
Calvary House (Markham) Corp.	100	100	100	100	100	100	100	100	100	100	336,043
Carpenters Local 27 Housing Co-operative Inc.	119	119	119	119	119	119	119	119	119	119	318,004
Centre Green Co-operative Homes Inc.	42	42	42	42	42	42	42	42	42	42	382,979
Charles Darrow Housing Co-operative Inc.	107	107	107	107	107	107	107	107	107	107	386,045
Davis Drive Non-Profit Homes Corp.	119	119	119	119	119	119	119	119	119	119	336,043
Friuli Benevolent Corporation	113	113	113	113	113	113	113	113	113	113	318,004
German-Canadian Housing of Newmarket Inc.	135	135	135	135	135	135	135	135	135	135	351,688
Hagerman Corners Community Homes Inc.	81	81	81	81	81	81	81	81	81	81	336,043
Birch Housing	149	149	149	149	149	149	149	149	149	149	359,511
Ja'fari Islamic Housing Corporation	170	170	170	170	170	170	170	170	170	170	382,979
John Fitzpatrick Steelworkers Housing Co-operative Inc.	180	180	180	180	180	180	180	180	180	180	359,511
Jubilee Garden Non-Profit Housing Corp.	100	100	100	100	100	100	100	100	100	100	382,979
Kinsmen Non Profit Housing Corporation	187	187	187	187	187	187	187	187	187	187	382,979
Landsberg Lewis Housing Co-operative Inc.	149	149	149	149	149	149	149	149	149	149	382,979
Machell's Corners Housing Co-operative Inc.	67	67	67	67	67	67	67	67	67	67	382,979
Mount Albert United Church Seniors Foundation	0	0	0	0	0	0	0	0	0	28	389,111
Oakwil Non-Profit Homes Corporation	28	28	28	28	28	28	28	28	28	28	382,979
OHR Somayach Residential Centre Inc.	125	125	125	125	125	125	125	125	125	125	318,004
Our Lady of Smolensk	35	35	35	35	35	35	35	35	35	35	389,111
Parkview Retirement Assoc. of York Region	124	124	124	124	124	124	124	124	124	124	336,043
Pefferlaw and Lions Housing Corp.	26	26	26	26	26	26	26	26	26	26	389,111
Prophetic Non-Profit (Richmond Hill) Inc.	212	212	213	213	213	213	213	213	213	213	318,004
Richmond Hill Co-operative Homes Inc.	105	105	105	105	105	105	105	105	105	105	382,979
Richmond Hill Ecumenical Homes Corporation	500	500	500	500	500	500	500	500	500	500	318,004

Table 9-18

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Unit)
Robinson Street Non-Profit Homes (Markham) Inc.	26	26	26	26	26	26	26	26	26	26	382,979
Rougebank Foundation	118	118	118	118	118	118	118	118	118	118	336,043
Schomberg Lions Club Non-Profit Housing Corp.	32	32	32	32	32	32	32	32	32	32	389,111
St. Matthew's Non-Profit Homes Inc.	23	23	23	23	23	23	23	23	23	23	382,979
St. Peter's Seniors' Residence Woodbridge Inc.	65	65	65	65	65	65	65	65	65	65	336,043
Thornhill St. Luke's Seniors Home Inc.	96	96	96	96	96	96	96	96	96	96	318,004
Unionville Home Society	92	92	92	92	92	92	92	92	92	92	382,979
Trinity Glen Housing Corporation	90	90	90	90	90	90	90	90	90	90	382,979
Water Street Non-Profit Homes Inc.	150	150	150	150	150	150	150	150	150	150	336,043
Housing York Inc. - Thornhill Green	102	102	102	102	102	102	102	102	102	102	421,569
Housing York Inc. - Brayfield Manors	81	81	81	81	81	81	81	81	81	81	345,679
Housing York Inc. - Dunlop Pines	133	133	133	133	133	133	133	133	133	133	303,030
Housing York Inc. - East Court	10	10	10	10	10	10	10	10	10	10	500,000
Housing York Inc. - Elmwood Gardens	51	51	51	51	51	51	51	51	51	51	352,941
Housing York Inc. - Evergreen Terrace	56	56	56	56	56	56	56	56	56	56	321,429
Housing York Inc. - Fairy Lake Gardens	153	153	153	153	153	153	153	153	153	153	268,041
Housing York Inc. - Founders Place	100	100	100	100	100	100	100	100	100	100	330,000
Housing York Inc. - Glenwood Mews	64	64	64	64	64	64	64	64	64	64	296,875
Housing York Inc. - Hadley Grange	80	80	80	80	80	80	80	80	80	80	337,500
Housing York Inc. - Heritage East	120	120	120	120	120	120	120	120	120	120	444,444
Housing York Inc. - Keswick Gardens	120	120	120	120	120	120	120	120	120	120	383,333
Housing York Inc. - Kingview Court	27	27	27	27	27	27	27	27	27	27	444,444
Housing York Inc. - Maplewood Place	80	80	80	80	80	80	80	80	80	80	325,000
Housing York Inc. - Mulock Village	104	104	104	104	104	104	104	104	104	104	365,385
Housing York Inc. - Nobleview Pines	26	26	26	26	26	26	26	26	26	26	346,154
Housing York Inc. - Northview Court	72	72	72	72	72	72	72	72	72	72	350,000
Housing York Inc. - Orchard Heights Place	83	83	83	83	83	83	83	83	83	83	318,182
Housing York Inc. - Oxford Village	36	36	36	36	36	36	36	36	36	36	333,333
Housing York Inc. - Pineview Terrace	49	49	49	49	49	49	49	49	49	49	306,122
Housing York Inc. - Porter Place	25	25	25	25	25	25	25	25	25	25	240,000
Housing York Inc. - Leeder Place	15	15	15	15	15	15	15	15	15	15	466,667
Housing York Inc. - Rosetown	125	125	125	125	125	125	125	125	125	125	384,000
Housing York Inc. - Springbrook Gardens	93	93	93	93	93	93	93	93	93	93	376,344
Housing York Inc. - Trinity Square	100	100	100	100	100	100	100	100	100	100	462,500

Table 9-18

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Unit)
Projects Added by Region (Since 2002)											
Housing York Inc. - Armitage Gardens	58	58	58	58	58	58	58	58	58	58	568,966
Housing York Inc. - Blue Willow Terrace	60	60	60	60	60	60	60	60	60	60	400,000
Housing York Inc. - Tom Taylor Place	50	50	50	50	50	50	50	50	50	50	360,000
Housing York Inc. - Dew St. Kingview Court	39	39	39	39	39	39	39	39	39	39	384,615
East Markham Non-Profit Homes Inc.	120	120	120	120	120	120	120	120	120	120	336,043
Voice of Vedas Cultural Sabha Inc.	25	25	25	25	25	25	25	25	25	25	389,111
Deafblind Ontario Services - Hertick	4	4	4	4	4	4	4	4	4	4	382,979
Deafblind Ontario Services - Treffry	4	4	4	4	4	4	4	4	4	4	382,979
Deafblind Ontario Services - St. George	4	4	4	4	4	4	4	4	4	4	382,979
Hesperus Fellowship Village	60	60	60	60	60	60	60	60	60	60	389,111
REENA	60	60	60	60	60	60	60	60	60	60	336,043
Housing York Inc. - Mackenzie Green	0	140	140	140	140	140	140	140	140	140	357,143
Housing York Inc. - Mapleglen Residences	84	84	84	84	84	84	84	84	84	84	321,429
Housing York Inc. - Lakeside Residences	0	0	97	97	97	97	97	97	97	97	268,041
Richmond Hill Hub	0	0	0	0	202	202	202	202	202	202	316,832
Richmond Hill Hub Existing Debt Share					(14)	(14)	(14)	(14)	(14)	(14)	316,832
Crescent Village	0	0	0	28	28	28	28	28	28	28	389,111
Belinda's Place	0	0	0	0	37	37	37	37	37	37	513,514
Woodbridge	0	0	0	0	0	0	0	0	162	162	308,642
Modular Home - Sutton (Transitional Housing)										8	325,000
Modular Home - East Gwillimbury (Transitional Housing)										18	217,666
Markham Inter-Church Committee for Affordable Housing										32	336,043
Total	6,315	6,455	6,553	6,581	6,806	6,806	6,806	6,806	6,968	7,054	353,720

Population	1,087,000	1,101,500	1,117,000	1,131,700	1,143,900	1,160,900	1,182,200	1,197,700	1,209,800	1,227,700
Per Capita Standard	0.0058	0.0059	0.0059	0.0058	0.0059	0.0059	0.0058	0.0057	0.0058	0.0057

10 Year Average	2012-2021
Quantity Standard (Unit per Capita)	0.0058
Quality Standard (\$ per Unit)	\$353,720
Service Standard (\$ per Capita)	\$2,055

DC Amount (before adjustments)	20 Year
Gross population increase	476,277
\$ per Capita	\$2,055.45
DC Amount (before adjustments)	\$978,963,403

Table 9-19

2022 Development Charges Background Study
Housing Services
Growth related capital costs

10-Year Historic Level of Service Cap	
Land	0
Facilities	978,963,403
Vehicles	0
Equipment	0
Opening reserve adjustment	6,240,298
Funding Envelope	985,203,701
Less Existing debt principal	7,454,492
Total eligible amount for new projects	977,749,209

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split				
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Non-Residential Share				
										Residential 100%	Retail 0%	Industrial/ Office/ Institutional 0%	Hotel 0%	
1	Unionville Common	2022-2026	36,137,000	1,962,000	34,175,000	24,606,000	9,569,000	9,569,000	0	9,569,000	0	0	0	0
2	Stouffville (Phase I)	2022-2026	28,400,000	10,437,000	17,963,000	12,933,360	5,029,640	5,029,640	0	5,029,640	0	0	0	0
3	Men's Emergency and Transitional Housing	2022-2026	10,000,000		10,000,000	7,200,000	2,800,000	2,800,000	0	2,800,000	0	0	0	0
4	62 Bayview	2022-2026	87,500,000	26,250,000	61,250,000	44,100,000	17,150,000	17,150,000	0	17,150,000	0	0	0	0
5	Aurora (TBD)	2022-2026	52,500,000	15,750,000	36,750,000	26,460,000	10,290,000	10,290,000	0	10,290,000	0	0	0	0
6	Nobleview Pines (Growth)	2022-2031	70,000,000	21,000,000	49,000,000	35,280,000	13,720,000	13,720,000	0	13,720,000	0	0	0	0
7	Armitage Gardens (Growth)	2022-2031	31,500,000	9,450,000	22,050,000	15,876,000	6,174,000	6,174,000	0	6,174,000	0	0	0	0
8	Stouffville (Phase II)	2022-2031	70,000,000	21,000,000	49,000,000	35,280,000	13,720,000	13,720,000	0	13,720,000	0	0	0	0
9	Markham Site A	2022-2031	87,500,000	26,250,000	61,250,000	44,100,000	17,150,000	17,150,000	0	17,150,000	0	0	0	0
10	Youth Emergency Housing (Growth)	2027-2031	7,000,000	2,100,000	4,900,000	3,528,000	1,372,000	1,372,000	0	1,372,000	0	0	0	0
11	East Court (Growth)	2027-2036	31,500,000	9,450,000	22,050,000	15,876,000	6,174,000	6,174,000	0	6,174,000	0	0	0	0
12	East Gwillimbury (TBD)	2027-2036	61,250,000	18,375,000	42,875,000	30,870,000	12,005,000	12,005,000	0	12,005,000	0	0	0	0
13	Family Transitional (Growth)	2027-2036	8,750,000	2,625,000	6,125,000	4,410,000	1,715,000	1,715,000	0	1,715,000	0	0	0	0
14	Dunlop Pines (Growth)	2027-2036	43,750,000	13,125,000	30,625,000	22,050,000	8,575,000	8,575,000	0	8,575,000	0	0	0	0
15	Thornhill Green (Phase I) - Growth	2031-2036	63,350,000	19,005,000	44,345,000	31,928,400	12,416,600	12,416,600	0	12,416,600	0	0	0	0
16	Pre-Development Cost	2022-2041	4,000,000	0	4,000,000	2,880,000	1,120,000	1,120,000	0	1,120,000	0	0	0	0
17	Northview Court (Growth)	2031-2041	9,800,000	2,940,000	6,860,000	4,939,200	1,920,800	1,920,800	0	1,920,800	0	0	0	0
18	Thornhill Green (Phase II) - Growth	2031-2041	58,100,000	17,430,000	40,670,000	29,282,400	11,387,600	11,387,600	0	11,387,600	0	0	0	0
19	Vaughan (TBD)	2031-2041	36,750,000	11,025,000	25,725,000	18,522,000	7,203,000	7,203,000	0	7,203,000	0	0	0	0
20	Richmond Hill (TBD)	2031-2041	17,500,000	5,250,000	12,250,000	8,820,000	3,430,000	3,430,000	0	3,430,000	0	0	0	0
21	Thornhill Green (Phase III) - Growth	2031-2041	52,500,000	15,750,000	36,750,000	26,460,000	10,290,000	10,290,000	0	10,290,000	0	0	0	0
22	Evergreen Terrace (Growth)	2031-2041	40,950,000	12,285,000	28,665,000	20,638,800	8,026,200	8,026,200	0	8,026,200	0	0	0	0
Total			908,737,000	261,459,000	647,278,000	466,040,160	181,237,840	181,237,840	0	181,237,840	0	0	0	0

9.5 Growth Studies

The 2022 DC Bylaw includes Growth Studies undertaken to facilitate the completion of the Region's capital growth-related program.

9.5.1 Program Description

The 20-year Growth Studies capital program (Table 9-19) consists of growth-related studies of a corporate nature, such as DC Background Studies, Official Plan updates and Master Plans.

9.5.2 Level of Service

The 10-year historical level of service for the Growth Studies program is reflective of actual expenditures on growth studies in York Region.

9.5.3 Benefit to Existing Development Deduction

No deduction has been made for the studies, which are fully growth-related.

9.5.4 Post Period Benefit Deduction

The studies identified in the capital program are entirely related to development occurring over the 2022-2041 planning period. As such, no post-period deduction has been made.

9.5.5 Grants, Subsidies and Other Contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

9.5.6 Residential versus Non-Residential Allocation

The methodology to determine the residential vs. non-residential allocation for Growth Studies is based on the net increment in population and employment growth 2022-2041, as follows:

TABLE 9-20
RESIDENTIAL AND NON-RESIDENTIAL ALLOCATION

	2022 to mid-2041	%
Gross population growth	476,277	74.88
Retail employment growth*	34,259	5.39
IOI employment growth*	124,766	19.62
Hotel employment growth*	777	0.12
Total population and employment*	636,079	100.00

*Note: Employment requiring new space
Numbers may not add due to rounding

Table 9-21

2022 Development Charges Background Study
 Growth Studies
 Growth related capital costs

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Non-Residential Share			
										Residential 74.88%	Retail 5.39%	Industrial/ Office/ Institutional 19.62%	Hotel 0.12%
1	Growth Studies - Long Range Planning	2022-2041	19,195,628	0	19,195,628	0	19,195,628	19,195,628	0	14,373,092	1,033,799	3,765,325	23,412
2	Growth Studies - Finance	2022-2041	10,171,083	0	10,171,083	0	10,171,083	10,171,083	0	7,615,792	547,774	1,995,112	12,405
3	Growth Studies - Consultant	2022-2041	700,000	0	700,000	0	700,000	700,000	0	524,138	37,699	137,309	854
4	YorkTrax Enhancement	2022-2027	1,910,700	0	1,910,700	0	1,910,700	1,910,700	0	1,430,673	102,903	374,794	2,330
Total			31,977,411	0	31,977,411	0	31,977,411	31,977,411	0	23,943,695	1,722,175	6,272,540	39,002

9.6 Court Services

9.6.1 Program Description

The 20-year Court Services capital program (Table 9-25) includes the Court Services portion of 17150 Yonge Street and existing growth-related debt costs.

9.6.2 Level of Service

York Region's 10-year historical level of service for Court Services is based on square footage at the Court facilities at 465 Davis Drive (Tannery), 50 High Tech Road (South Services Centre), and 17150 Yonge Street. The average replacement cost, inclusive of land value and site servicing, has been applied.

The total funding envelope of \$9,703,514 is determined by applying the historic per capita service level to projected growth over the planning horizon and accounting for opening reserve balance levels and existing debt. Finally, \$6,010,248 is the eligible amount available to new projects after accounting for existing outstanding development charge debt costs for this service.

9.6.3 Statutory Deductions

The Court Services capital program identified a 29% share costs benefitting existing development and included as a BTE deduction in rate calculation.

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

9.6.4 Residential versus Non-Residential Allocation

The methodology to determine the residential versus non-residential allocation for Court Services is the same as what was used for Police Services. It is based on the net increment in population and employment growth between 2022-2041 as shown in Table 9-20 below:

TABLE 9-22
RESIDENTIAL AND NON-RESIDENTIAL ALLOCATION

	2022 to mid-2041	%
Gross population growth	476,277	74.88
Retail employment growth*	34,259	5.39
IOI employment growth*	124,766	19.62
Hotel employment growth*	777	0.12
Total population and employment*	636,079	100.00

*Note: Employment requiring new space
Numbers may not add due to rounding

Table 9-23

2022 Development Charges Background Study
Court Services - Land
Acres
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Acre)
465 Davis Drive (Tannery)	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62		3,207,377
17150 Yonge St (Annex)										1.48	3,207,377
50 High Tech Road (South Service Centre)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	6,109,290
Total	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	1.98	3,688,848

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	0.0019	0.0019	0.0019	0.0018	0.0018	0.0018	0.0017	0.0017	0.0017	0.0011

10 Year Average	2012-2021
Quantity Standard (Sqft per 1,000 Capita)	0.0017
Quality Standard (\$ per Sqft)	\$3,688,848
Service Standard (\$ per 1,000 Capita)	\$6,343.30

DC Amount (before adjustments)	20-Year
Gross population and employment requiring new space increase	636,079
\$ per 1,000 Capita	\$6,343.30
DC Amount (before adjustments)	\$4,034,837

Table 9-24

2022 Development Charges Background Study
 Court Services - Facilities
 Square Footage
 Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Sqft)
465 Davis Drive (Tannery)	21,880	21,880	21,880	21,880	21,880	21,880	21,880	21,880	21,880	0	806
17150 Yonge St (Annex)	0	0	0	0	0	0	0	0	0	74,070	806
17150 Yonge St (Annex) Existing Debt Share										(4,580)	806
50 High Tech Road (South Service Centre)	12,063	12,063	12,063	12,063	12,063	12,063	12,063	12,063	12,063	12,023	806
Total	33,943	33,943	33,943	33,943	33,943	33,943	33,943	33,943	33,943	81,513	806

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	20.99	20.44	20.16	19.81	19.42	19.04	18.66	18.32	18.76	43.41

10 Year Average	2012-2021
Quantity Standard (Sqft per 1,000 Capita)	21.90
Quality Standard (\$ per Sqft)	\$806
Service Standard (\$ per 1,000 Capita)	17,663.17

DC Amount (before adjustments)	20-Year
Gross population and employment requiring new space increase	636,079
\$ per 1,000 Capita	\$17,663.17
DC Amount (before adjustments)	\$11,235,173

2022 Development Charges Background Study
 Court Services
 Growth related capital costs

10-Year Historic Level of Service Cap	
Land	4,034,837
Facilities	11,235,173
Vehicles	0
Equipment	0
Opening reserve adjustment	(5,566,497)
Funding Envelope	9,703,514
Less Existing debt principal	3,693,266
Total eligible amount for new projects	6,010,248

Project Number	Project Description	Timing	Gross Project Cost (2022-2041)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2041)	Post Period Benefit / Level of Service Deduction (Beyond 2041)	Non-Residential Share			
										Residential 74.88%	Retail 5.39%	Industrial/ Office/ Institutional 19.61%	Hotel 0.12%
1	Annex, Courts only (17150 Yonge Street)	2022	108,460	0	108,460	31,453	77,007	77,007	0	57,660	4,148	15,105	94
	Total		108,460	0	108,460	31,453	77,007	77,007	0	57,660	4,148	15,105	94

9.7 Ambulance Services

9.7.1 Program Description

With regular updates [since 2012](#), York Region has been preparing an Emergency Medical Services 10-Year Resources and Facilities Master Plan. The Plan identifies optimal station locations, staffing and vehicle requirements to meet the needs of the Region’s growing population. The 2022 update extends the Plan to 2031 and, building on previous plans, includes a more comprehensive assessment of growth needs (Table 9-30). The Ambulance Services program consists of:

Facilities	Additional growth-related bays, new stations, land acquisitions and station rebuilds for future growth
Vehicles	Additional growth-related ambulance vehicles, equipped with defibrillators and stretchers

9.7.2 Level of Service

The 10-year historical level of service cap has been applied for the Ambulance Services in the 2022 DC Background Study and is comprised of the following:

- Land, including existing paramedic response stations and a headquarters facility (Table 9-27)
- Facilities, including existing paramedic response stations and a headquarters facility (Table 9-28). The space has been valued based on estimated 2022 replacement cost per square foot
- Vehicles, such as ambulances with specialized equipment, emergency response vehicles, support vehicles, administration and command vehicles, special response units and logistics vehicles (Table 9-29)

For services such as Ambulance Services, it is recognized that response time is a critical measure of service delivery and new development can fundamentally impact the ability to provide such services at historical levels. The increase in need for service arising from new development, as identified in the capital program, has also been informed by the need to provide and meet identified response time measures.

The total funding envelope of \$45,513,674 is determined by applying the historic per capita service level to projected growth over the planning horizon and accounting for opening reserve balance levels and existing debt. Finally, \$33,746,003 is the eligible amount available to new projects after accounting for existing outstanding development charge debt costs for this service.

9.7.3 Benefit to Existing Development Deduction

The 25% to 50 % benefit to existing share was identified for some facility projects. The rest of the facilities and new vehicles are being added in proportion to the growth-related call volume.

9.7.4 Post Period Benefit Deduction

Most of the Ambulance Services program reflects 10 years of requirements related to development occurring between 2022 and 2031. Facilities that support growth beyond the planning horizon have a post period benefit deduction ranging from 25% to 67%.

9.7.5 Grants, Subsidies and Other Contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

9.7.6 Residential versus Non-Residential Allocation

The residential versus non-residential allocation is based on the net increment in population and employment growth between 2022-2031 (Table 9-26), with population weighted at three times that of employment in order to reflect increased per-capita needs related to age and time spent in residences.

TABLE 9-26
NET INCREMENT IN POPULATION AND EMPLOYMENT GROWTH

	2022 to mid-2031		Weighted	%
Gross residential population growth	222,074	X	666,222	89.51
Retail employment growth	16,740	X	16,740	2.25
IOI employment growth	60,931	X	60,931	8.19
Hotel employment growth	368	X	368	0.05
Total population and employment	744,261	X	744,261	100.00

*Note: Employment requiring new space
Numbers may not add due to rounding

Table 9-27

2022 Development Charges Background Study
 Ambulance Services - Land
 Acres
 Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Acre)
Paramedic Response Stations											
Station #10 - Pefferlaw (Georgina)	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	1,338,163
Station #11 - Sutton (Georgina)	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	1,338,163
Station #12 - Keswick (Georgina)	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	1,338,163
Station #13 - Holland Landing							2.01	2.01	2.01	2.01	1,338,163
Station #14 - Queensville (East Gwillimbury)	1.22	1.22	1.22								1,784,218
Station #15 - Mount Albert (East Gwillimbury)	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	1,784,218
Station #16 - Newmarket NW								1.11	1.11	1.11	2,341,786
Station #17 - Newmarket	0.80	0.80	0.80	0.80	0.80	0.80	0.80				2,341,786
Station #18 - Aurora	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	2,341,786
Station #19 - Newmarket SE							0.43	0.43	0.43	0.43	2,341,786
Station #20 - Ballantrae (Whitchurch/Stouffville)	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	2,007,245
Station #21 - Stouffville (Whitchurch/Stouffville)	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	2,007,245
Station #22 - Gormley (Whitchurch-Stouffville)											1.62 2,007,245
Station #23 - Markham	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	4,683,571
Station #24 - Unionville	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	4,683,571
Station #25 - Markham								1.25	1.25	1.25	4,683,571
Station #26 - Markham	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	4,683,571
Station #28 - Richmond Hill	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	4,460,544
Station #29 - Thornhill (Markham)										0.94	4,683,571
Station #30 - Woodbridge (Vaughan)	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	4,683,571
Station #31 - Vaughan West						0.51	0.51	0.51	0.51	0.51	4,683,571
Station #32 - Maple (Vaughan)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	4,683,571
Station #34 - Thornhill (Vaughan)	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	4,683,571
Station #36 - Thornhill Central (Vaughan)	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	4,683,571
Station #37 - Nobleton (King)	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	2,453,299
Station #38 - Schomberg	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	2,453,299
Station #39 - King	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	2,453,299
Station #70 - Holland Landing				0.23	0.23	0.23					1,338,163
Station #85 - Richmond Hill									2.12	2.12	4,460,544
Station #99 - Sharon-Bales HQ	25.30	25.30	25.30	25.30	25.30	25.30	25.30	25.30	25.30	25.30	1,338,163
Total	37	37	37	36	36	36	39	40	42	45	1,965,992

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	0.0228	0.0222	0.0219	0.0210	0.0206	0.0205	0.0213	0.0217	0.0233	0.0238

10 Year Average	2012-2021
Quantity Standard (Sqft per 1,000 Capita)	0.0219
Quality Standard (\$ per acre)	\$1,965,992
Service Standard (\$ per Capita)	\$43.09

DC Amount (before adjustments)	10 Year
Gross population and employment requiring new space increase	300,113
\$ per Capita	\$43.09
DC Amount (before adjustments)	\$12,931,930

Table 9-28

2022 Development Charges Background Study
Ambulance Services - Facilities
Square Footage
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Sqft)
Paramedic Response Stations											
Station #10 - Pefferlaw (Georgina)	655	655	655	2,279	2,279	2,279	2,279	2,279	2,279	2,279	1,261
Station #10 - Pefferlaw (Georgina) Existing Debt Share	(279)	(279)	(279)	(279)	(279)	(279)	(279)	(279)	(279)	(279)	1,261
Station #11 - Sutton (Georgina)	1,937	1,937	1,937	1,937	1,937	1,937	1,937	1,937	1,937	1,937	1,261
Station #12 - Keswick (Georgina)	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278	1,261
Station #13 - Holland Landing							5,371	5,371	5,371	5,371	1,261
Station #13 - Holland Landing Existing Debt Share							(920)	(920)	(920)	(920)	1,261
Station #14 - Queensville (East Gwillimbury)	957	957	957								1,261
Station #14 - Queensville (East Gwillimbury) Existing Debt Share	(332)	(332)	(332)								1,261
Station #15 - Mount Albert (East Gwillimbury)	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	1,261
Station #16 - Newmarket NW								7,266	7,266	7,266	1,261
Station #17 - Newmarket	9,179	9,179	9,179	9,179	9,179	9,179	9,179				1,261
Station #18 - Aurora	2,037	2,037	2,037	2,037	2,037	2,037	2,037	2,037	2,037	2,037	1,261
Station #19 - Newmarket SE							7,212	7,212	7,212	7,212	1,261
Station #20 - Ballantrae (Whitchurch/Stouffville)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,261
Station #21 - Stouffville (Whitchurch/Stouffville)	2,168	2,168	2,168	2,168	2,168	2,168	2,168	2,168	2,168	2,168	1,261
Station #22 - Gormley (Whitchurch-Stouffville)										3,886	1,261
Station #22 - Gormley (Whitchurch-Stouffville) Existing Debt Share										(2,773)	1,261
Station #23 - Markham	6,276	6,276	6,276	6,276	6,276	6,276	6,276	6,276	6,276	6,276	1,261
Station #24 - Unionville	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,261
Station #25 - Markham								5,275	5,275	5,275	1,261
Station #25 - Markham Existing Debt Share								(743)	(743)	(743)	1,261
Station #26 - Markham	4,445	4,445	4,445	4,445	4,445	4,445	4,445	4,445	4,445	4,445	1,261
Station #28 - Richmond Hill	6,634	6,634	6,634	6,634	6,634	6,634	6,634	6,634	6,634	6,634	1,261
Station #29 - Thornhill (Markham)										5,371	1,261
Station #29 - Thornhill (Markham) Existing Debt Share										(2,810)	1,261
Station #30 - Woodbridge (Vaughan)	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	1,261
Station #31 - Vaughan West						3,767	3,767	3,767	3,767	3,767	1,261
Station #31 - Vaughan West Existing Debt Share						(746)	(746)	(746)	(746)	(746)	1,261
Station #32 - Maple (Vaughan)	2,226	2,226	2,226	2,226	2,226	2,226	2,226	2,226	2,226	2,226	1,261
Station #34 - Thornhill (Vaughan)	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	1,261
Station #36 - Thornhill Central (Vaughan)	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239			1,261
Station #37 - Nobleton (King)	3,220	3,220	3,220	3,220	3,220	3,220	3,220	3,220	3,220	3,220	1,261
Station #38 - Schomberg	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	1,261
Station #38 - Schomberg Existing Debt Share	(170)	(170)	(170)	(170)	(170)	(170)	(170)	(170)	(170)	(170)	1,261
Station #39 - King	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	1,261
Station #70 - Holland Landing				2,076	2,076	2,076					1,261
Station #85 - Richmond Hill									2,082	2,082	1,261
Station #99 - Sharon-Bales HQ	63,564	63,564	63,564	63,564	63,564	63,564	63,564	63,564	63,564	63,564	1,261
Total	130,673	130,673	130,673	133,747	133,747	136,768	146,355	148,975	149,818	153,492	1,261

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per Capita Standard	0.0808	0.0787	0.0776	0.0781	0.0765	0.0767	0.0805	0.0804	0.0828	0.0817

10 Year Average	2012-2021
Quantity Standard (Sqft per Capita)	0.0794
Quality Standard (\$ per Sqft)	\$1,261
Service Standard (\$ per Capita)	\$100.10

DC Amount (before adjustments)	10 Year
Gross population and employment requiring new space increase	300,113
\$ per Capita	\$100.10
DC Amount (before adjustments)	\$30,042,323

Table 9-29

2022 Development Charges Background Study
Ambulance Services - Vehicles
Number of Vehicles
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Vehicle)
Ambulances (includes Stretcher & Defib)	49	54	54	56	58	62	66	70	74	76	260,000
Emergency Response Vehicles (incl. Defib)	17	19	19	20	22	22	22	22	26	28	135,000
Emergency Support Unit (ESU)	1	1	1	1	1	1	1	1	1	1	500,000
Multi Patient Unit (MPU/bus)	0	1	1	1	1	1	1	1	1	1	1,213,106
Administration Vehicles	0	13	13	11	11	11	8	6	5	5	81,090
Special Response Units (SRU)	0	4	4	4	4	4	4	4	4	4	270,300
Community Paramedicine/EPIC (Expanding Paramedicine in the Community) (incl. Defibrillator)	0	2	2	2	2	2	2	4	2	3	135,000
Logistics Vehicles						2	2	2	2	2	154,395
Trailers and Ranger (SRU)						4	4	2	2	2	40,000
Total	67	94	94	95	99	109	110	112	117	122	223,301

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	0.0414	0.0566	0.0558	0.0554	0.0567	0.0612	0.0605	0.0605	0.0647	0.0650

10 Year Average	2012-2021
Quantity Standard (Vehicles per 1,000 Capita)	0.0578
Quality Standard (\$ per Vehicle)	\$223,301
Service Standard (\$ per Capita)	\$12.90

DC Amount (before adjustments)	10 Year
Gross population and employment requiring new space increase	300,113
\$ per Capita	\$12.90
DC Amount (before adjustments)	\$3,871,337

Table 9-30

2022 Development Charges Background Study
 Ambulance Services
 Growth related capital costs

10-Year Historic Level of Service Cap	
Land	12,931,930
Facilities	30,042,323
Vehicles	3,871,337
Equipment	0
Opening reserve adjustment	(1,331,916)
Funding Envelope	45,513,674
Less Existing Debt Principal	11,767,671
Total eligible amount for new projects	33,746,003

Project Number	Project Description	Timing	Gross Project Cost (2022-2031)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Non-Residential Share			
										Residential 89.51%	Retail 2.25%	Industrial/ Office/ Institutional 8.19%	Hotel 0.05%
Facilities													
1	Maple Paramedic Response Station #32 (from 1 to 4 bays)	2022 - 2026	6,925,000	0	6,925,000	1,731,250	5,193,750	3,479,813	1,713,938	3,114,931	78,269	284,893	1,720
2	Bailantrae Paramedic Response Station #20 (from 1 to 2 bays)	2022 - 2026	5,680,000	0	5,680,000	2,840,000	2,840,000	2,840,000	0	2,542,207	63,878	232,512	1,404
3	Paramedic Station Land Acquisition - Growth	2022 - 2031	12,248,000	0	12,248,000	3,551,920	8,696,080	3,826,275	4,869,805	3,425,064	86,062	313,258	1,891
4	Paramedic Response Station Rebuilds - Growth	2027 - 2031	3,690,000	0	3,690,000	1,845,000	1,845,000	922,500	922,500	825,770	20,749	75,525	456
5	Markham N/W Paramedic Response Station #27	2022 - 2026	6,504,000	0	6,504,000	0	6,504,000	6,504,000	0	5,822,012	146,290	532,484	3,214
6	Vaughan S/E Paramedic Response Station #35	2027 - 2031	2,816,000	0	2,816,000	0	2,816,000	929,280	1,886,720	831,839	20,902	76,080	459
7	Vaughan North Paramedic Response Station #33	2022 - 2026	4,735,000	0	4,735,000	0	4,735,000	4,735,000	0	4,238,503	106,501	387,656	2,340
8	Keswick South Paramedic Response Station #14	2022 - 2026	7,000,000	0	7,000,000	0	7,000,000	5,250,000	1,750,000	4,699,502	118,084	429,819	2,595
	Subtotal Facilities		49,598,000	0	49,598,000	9,968,170	39,629,830	28,486,868	11,142,962	25,499,827	640,734	2,332,227	14,079
Vehicles													
9	EMS Vehicle New	2022-2031	3,847,068	0	3,847,068	0	3,847,068	3,847,068	0	3,443,677	86,529	314,960	1,901
	Subtotal Vehicles		3,847,068	0	3,847,068	0	3,847,068	3,847,068	0	3,443,677	86,529	314,960	1,901
Total			53,445,068	0	53,445,068	9,968,170	43,476,898	32,333,936	11,142,962	28,943,504	727,264	2,647,188	15,980

9.8 Public Health

9.8.1 Program Description

The 10-year Public Health capital program (Table 9-34) consists of the provision of additional space for growth-related service expansions as, in part, reflected in York Region's 2022 capital budget.

9.8.2 Level of Service

The 10-year historical service level is made up of a number of operating locations, including the Public Health component of the Administrative Building, net of Headquarters Administration functions, and specialized vehicles. Vehicles include vaccine and staff mobile units valued at 2021 replacement costs. The land and facilities have been valued at 2022 replacement cost (Tables 9-31 to 9-33).

The total funding envelope of \$31,489,501 is determined by applying the historic per capita service level to projected growth over the planning horizon and accounting for opening reserve balance levels and existing debt. Finally, \$31,489,501 is the eligible amount available to new projects after accounting for existing outstanding development charge debt costs for this service.

9.8.3 Statutory Deductions

As the provision for future vehicles and facilities is entirely related to providing an increased service arising from new development over the planning period, no benefit to existing deduction has been made.

The development charges program consists of 10 years of requirements. As such, no deduction for post period benefit has been made.

No grants, subsidies or other contributions have been identified for this service and no adjustments have been made.

9.8.4 Residential versus Non-Residential Allocation

Public Health primarily provides services to residents of York Region. However, some of its functions benefit non-residential development. The basis for determining the allocation between residential and non-residential sectors is the proportionate share of the 2022 operating budget. Based on this methodology, the residential/ non-residential split is 97.18% and 2.82% respectively.

Table 9-31

2022 Development Charges Background Study
Public Health - Land
Acres
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Acre)
22 Prospect St. (Newmarket)	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45		1,872,358
4261 Highway 7 (Markham)	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	2,184,418
465 Davis Drive	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93		1,872,358
50 High Tech Road	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1,872,358
194 Eagle Street (Newmarket)	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01		1,872,358
100 Biscayne Blvd. (Keswick)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02		1,248,239
20798 Dalton Road (Sutton)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		1,248,239
Vaughan Community Health Center	0.00	0.00	0.00								3,120,597
520 Cane Parkway	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33		1,872,358
24262 Woodbine (Keswick)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	1,248,239
9060 Jane St (Vaughan)			1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	3,120,597
3901 Hwy 7 (Woodbridge)	0.00	0.00	0.00								3,120,597
20849 Dalton Rd, Sutton (Georgina Link Hub)										0.85	1,248,239
17150 Yonge Street - 3rd floor (clinic service)										0.17	1,872,358
17150 Yonge Street - Vaccine Depot P1 & Temp space										0.16	1,872,358
17250 / 17150 Yonge Street - Health Emergency Operations Centre						0.02	0.02	0.02	0.02	0.02	1,872,358
Total	6.95	6.95	8.21	8.21	8.21	8.23	8.23	8.23	8.23	4.68	2,063,088

Net Population + Net Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	0.0043	0.0042	0.0049	0.0048	0.0047	0.0046	0.0045	0.0044	0.0045	0.0025

10 Year Average	2012-2021
Quantity Standard (Sqft per 1,000 Capita)	0.0043
Quality Standard (\$ per 1,000 Sqft)	\$2,063,088
Service Standard (\$ per 1,000 Capita)	\$8,969.49

DC Amount (before adjustments)	10-Year
Gross population and employment requiring new space increase	300,113
\$ per 1,000 Capita	\$8,969
DC Amount (before adjustments)	\$2,691,862

Table 9-32

2022 Development Charges Background Study
Public Health - Facilities
Square Footage
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Sqft)
22 Prospect St. (Newmarket)	10,939	10,939	10,939	10,939	10,939	10,939	10,939	10,939	10,939		885
4261 Highway 7 (Markham)	16,056	16,056	16,056	16,056	16,056	16,056	16,056	16,056	16,056	16,056	885
465 Davis Drive	27,137	27,137	23,616	23,616	23,616	23,616	23,616	23,616	23,616		885
50 High Tech Road	21,495	21,495	21,495	21,495	21,495	21,495	21,495	21,495	21,495	21,495	885
194 Eagle Street (Newmarket)	6,670	6,670	6,670	6,670	6,670	6,670	6,670	6,670	6,670		885
100 Biscayne Blvd. (Keswick)	220	220	220	220	220	220	220	220	220		884
20798 Dalton Road (Sutton)	300	300	300	300	300	300	300	300	300		884
Vaughan Community Health Center	189	189	189								886
520 Cane Parkway	3,818	3,818	3,818	3,818	3,818	3,818	3,818	3,818	3,818		885
24262 Woodbine (Keswick)	812	812	812	812	812	812	812	812		812	884
9060 Jane St (Vaughan)			34,215	34,215	34,215	34,215	34,215	34,215	34,215	34,215	886
3901 Hwy 7 (Woodbridge)	48	48	48								886
20849 Dalton Rd, Sutton (Georgina Link Hub)										3,128	884
17150 Yonge Street - 3rd floor (clinic service)										8,690	885
17150 Yonge Street - Vaccine Depot P1 & Temp space										8,218	885
17250 / 17150 Yonge Street - Health Emergency Operations Centre						831	831	831	831	2,597	885
Total	87,684	87,684	118,378	118,141	118,141	118,972	118,972	118,972	118,972	95,211	885

Net Population + Net Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,877,600
Per 1,000 Capita Standard	54.2163	52.8026	70.2916	68.9472	67.6057	66.7482	65.4124	64.2293	65.7485	50.7089

10 Year Average	2012-2021
Quantity Standard (Sqft per 1,000 Capita)	62.67
Quality Standard (\$ per 1,000 Sqft)	\$885
Service Standard (\$ per 1,000 Capita)	\$55,485

DC Amount (before adjustments)	10-Year
Gross population and employment requiring new space increase	300,113
\$ per 1,000 Capita	\$55,485
DC Amount (before adjustments)	\$16,651,768

Table 9-33

2022 Development Charges Background Study
Public Health - Vehicles
Number of Vehicles
Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$ per Vehicle)
#381 & 3028 - Caravan - Transport of Staff	2	2	2	2	2	2	2	2	2	2	25,000
#3022 - 1 tonne van - Transport of Vaccines						1	1	1	1	1	78,000
#3052 - 3/4 tonne van - Transport of Vaccines										1	44,000
Total	2	2	2	2	2	3	3	3	3	4	35,573

Population + Employment	1,617,300	1,660,600	1,684,100	1,713,500	1,747,500	1,782,400	1,818,800	1,852,300	1,809,500	1,866,700
Per 1,000 Capita Standard	0.0012	0.0012	0.0012	0.0012	0.0011	0.0017	0.0016	0.0016	0.0017	0.0021

10 Year Average	2012-2021
Quantity Standard (Vehicles per 1,000 Capita)	0.0015
Quality Standard (\$ per Vehicle)	\$35,573
Service Standard (\$ per 1,000 Capita)	\$52.27

DC Amount (before adjustments)	10 Years
Gross population and employment requiring new space increase	300,113
\$ per 1,000 Capita	\$52.27
DC Amount (before adjustments)	\$15,686

Table 9-34

2022 Development Charges Background Study
Public Health
Growth related capital costs

10-Year Historic Level of Service Cap	
Land	2,691,862
Facilities	16,651,768
Vehicles	15,686
Equipment	0
Opening reserve adjustment	12,130,184
Funding Envelope	31,489,501
Less Existing debt principal	0
Total eligible amount for new projects	31,489,501

Project Number	Project Description (2022-2041)	Timing	Gross Project Cost (2022-2031)	Less Capital Grants, Subsidies and Other Contributions	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	Growth Costs (2022-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Non-Residential Share			
										Residential	Retail	Industrial/ Office/ Institutional	Hotel
							97.18%	0.60%	2.20%	0.01%			
1	Provision for Public Health Facilities and Land	2022-2031	31,463,986	0	31,463,986	0	31,463,986	31,463,986	0	30,577,086	190,123	692,471	4,306
2	Provision for Public Health Vehicles	2022-2031	25,515	0	25,515	0	25,515	25,515	0	24,796	154	562	3
Total			31,489,501	0	31,489,501	0	31,489,501	31,489,501	0	30,601,881	190,278	693,033	4,309

9.9 Long-term Care/ Seniors Services

9.9.1 Program Description

The 10-year Long-term Care/Seniors Services' capital program (Table 9-36) includes Unionville Seniors Hub and Community Centre facility. Community hubs are innovative and accessible spaces that bring people together to access a range of services, programs and opportunities to promote inclusive, healthy and resilient communities. There are no development charges rates proposed for Long-term Care/Seniors Services as the available reserve funds are sufficient to fund the proposed projects.

9.9.2 Level of Service

The 10-year historical level of service cap has been applied to the Long-term Care/Seniors Services in the 2022 DC Background Study and is based on the bed count in the York Region's Long-term Care/ Seniors Services facilities (see Table 9-35).

The total funding envelope of \$52,316,244 is determined by applying the historic per capita service level to projected growth over the planning horizon and accounting for opening reserve balance levels and existing debt. Finally, \$52,316,244 is the eligible amount available to new projects after accounting for existing outstanding development charge debt costs for this service.

9.9.3 Benefit to Existing Development Deduction

Due to the fact that the demand is largely driven by existing development with a significant wait list for senior care beds; the growth-related cost has been calculated at 15% of total net capital program, with the benefit-to-existing share being 85%, based on share of population growth to 2031.

9.9.4 Post Period Benefit Deduction

The Long-term Care/ Seniors Services program is entirely related to development occurring over the 2022 to 2041 period. As such, no post period deduction has been made.

9.9.5 Grants, Subsidies And Other Contributions

Any applicable grants, subsidies and other contributions have been considered and deducted from the development charges eligible costs in accordance with the requirements of the Act. For the listed Long-term Care/ Seniors Services projects, the anticipated grants total is \$1.8 million, as listed in Table 9-35.

9.9.6 Residential versus Non-Residential Allocation

Long-term Care/ Seniors Services programs are provided solely for the benefit of residential development. As such, 100% of the DC-eligible costs have been allocated to residential development.

Table 9-35

2022 Development Charge Background Study
 Long Term Care/Senior Services - Facilities
 Beds
 Historic Level of Service

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Building Value (\$ per bed)	2022 Value with land, site works, etc. (\$ per bed)
Bed Count	232	232	232	232	232	232	232	232	232	232	427,419	683,419
Total	232	232	232	232	232	232	232	232	232	232	427,419	683,419

Population	1,087,000	1,101,500	1,117,000	1,131,700	1,143,900	1,160,900	1,182,200	1,197,700	1,209,800	1,227,700
Per 1,000 Capita Standard	0.2134	0.2106	0.2077	0.2050	0.2028	0.1998	0.1962	0.1937	0.1918	0.1890

10 Year Average	2012-2021
Quantity Standard (per 1,000 Capita)	0.2010
Quality Standard (\$ per bed)	\$683,419
Service Standard (\$ per 1,000 Capita)	\$137,374.16

DC Amount (before adjustments)	10 Year
Gross population increase	222,074
\$ per 1,000 Capita	\$137,374
DC Amount (before adjustments)	\$30,507,229

Table 9-36

2022 Development Charges Background Study
 Long Term Care/Seniors Services
 Growth related capital costs

10-Year Historic Level of Service Cap	
Land	0
Facilities	30,507,229
Vehicles	0
Equipment	0
Less Existing debt principal	0
Opening reserve adjustment	21,809,015
Total eligible amount for new projects	52,316,244

Project Number	Project Description	Timing	Gross Project Cost (2022-2031)	Less Grants and Subsidies	New Municipal Cost	Less Benefit to Existing	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
							Total Development Charge Eligible Cost	In-period Growth Costs (2022-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Non-Residential Share			
										Residential 100%	Retail 0%	Industrial/Office/Institutional 0%	Hotel 0%
1	Unionville Seniors Hub	2022-2027	2,501,000	1,822,000	679,000	574,992	104,008	104,008	0	104,008	0	0	0
Total			2,501,000	1,822,000	679,000	574,992	104,008	104,008	0	104,008	0	0	0

10 DEVELOPMENT CHARGES CASH FLOW CALCULATIONS

This Chapter provides the development charges calculations, based on the “Potential Development Charges Recoverable Cost” by service in Chapters 3-9 and the development forecasts in Chapter 2. Where applicable, the DC rate calculations commence with the development charges reserve fund balance for the service, as of the end of 2021. The DC-funded expenditures are set out by year and inflated at 2.71% annually. This rate of inflation is based on Non-Residential Building Consumer Price Index for the Toronto Census Metropolitan Area over the last 10 years. Existing debt payments and new debt proceeds and related payments are also tabulated. The interest rates assumed for the additional debt payments are consistent with the Region’s debt program.

For residential rates, the annual gross population growth forecast is shown and multiplied by the development charge per capita, also inflated at 2.71% per year. The calculated development charges ensure that the revenue stream is sufficient to fund the capital expenditures and debt payments, while leaving the development charge reserve fund balance at nil by the end of the period in mid-2041 (or 2031 where applicable).

The final adjustment that is made to this calculation is to provide for interest earnings/expense on the annual reserve fund transactions. The interest earnings/expense assumed depends on the nature of the service. In addition, it is assumed that the various rates applied will increase in the long term. Positive interest earnings are shown for the year where the opening reserve balance for the year is above zero. This earnings figure is then adjusted up or down, depending on whether the in-year transactions were in a surplus or deficit position.

The resultant development charge per capita is multiplied by the average persons per unit occupancy for each residential unit type in order to yield the development charge.

A similar set of calculations has been made for non-residential development, based on the forecast growth in floor area (in sq. ft.) and the share of costs attributable to non-residential development.

The following tables set out the DC rate calculations for each service.

Table 10-1

Water
Residential Development Charge Calculation

Assumptions		
Gross Population Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$370,309,520	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per Capita	\$2,349.63
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(67,869,850)	(6,895,402)	(6,895,402)	(58,110,648)	6,895,402	(113,774)	20,326	2,349.63	47,758,544	(10,465,878)	(2,239,705)	(172,687)	(80,748,120)
2023	(80,748,120)	(15,163,415)	(15,573,933)	(58,098,574)	15,573,933	(771,883)	20,326	2,413.24	49,051,507	(9,818,950)	(2,745,436)	(166,922)	(93,479,428)
2024	(93,479,428)	(26,646,893)	(28,109,242)	(58,086,583)	28,109,242	(2,146,694)	20,326	2,478.57	50,379,475	(9,853,803)	(3,225,040)	(169,978)	(106,728,249)
2025	(106,728,249)	(17,784,070)	(19,267,927)	(58,074,427)	19,267,927	(4,096,310)	20,326	2,545.68	51,743,394	(10,427,343)	(3,788,853)	(185,085)	(121,129,530)
2026	(121,129,530)	(12,244,211)	(13,624,981)	(58,269,466)	13,624,981	(5,445,472)	21,883	2,614.59	57,215,162	(6,499,776)	(4,360,663)	(116,996)	(132,106,966)
2027	(132,106,966)	(8,661,963)	(9,899,716)	(59,128,221)	9,899,716	(6,409,935)	23,439	2,685.38	62,942,592	(2,595,564)	(4,887,958)	(48,018)	(139,638,506)
2028	(139,638,506)	(12,498,208)	(14,670,854)	(59,441,065)	14,670,854	(7,253,757)	23,439	2,758.08	64,646,632	(2,048,191)	(5,236,444)	(38,404)	(146,961,544)
2029	(146,961,544)	(20,415,067)	(24,612,727)	(59,084,224)	24,612,727	(8,571,195)	23,439	2,832.75	66,396,805	(1,258,614)	(5,658,019)	(24,228)	(153,902,405)
2030	(153,902,405)	(28,409,281)	(35,177,944)	(55,326,795)	35,177,944	(10,710,411)	23,439	2,909.44	68,194,360	2,157,154	(6,309,999)	29,122	(158,026,129)
2031	(158,026,129)	(23,860,073)	(30,344,729)	(42,888,326)	30,344,729	(13,407,401)	25,131	2,988.21	75,096,626	18,800,899	(6,874,137)	277,313	(145,822,053)
2032	(145,822,053)	(22,758,046)	(29,726,772)	(31,815,568)	29,726,772	(15,820,468)	26,823	3,069.11	82,322,638	34,686,602	(6,343,259)	511,627	(116,967,083)
2033	(116,967,083)	(30,116,073)	(40,402,886)	(22,239,803)	40,402,886	(18,429,766)	26,823	3,152.20	84,551,352	43,881,783	(5,088,068)	647,256	(77,526,111)
2034	(77,526,111)	(31,308,460)	(43,139,691)	(17,416,481)	43,139,691	(21,720,097)	26,823	3,237.54	86,840,404	47,703,826	(3,372,386)	703,631	(32,491,040)
2035	(32,491,040)	(36,776,520)	(52,045,985)	(10,722,044)	52,045,985	(25,363,463)	26,823	3,325.18	89,191,427	53,105,920	(1,413,360)	783,312	19,984,833
2036	19,984,833	(30,801,328)	(44,770,024)	(6,434,666)	44,770,024	(29,367,053)	26,761	3,415.21	91,394,356	55,592,637	589,553	819,991	76,987,014
2037	76,987,014	(14,682,812)	(21,919,386)	(2,202,337)	21,919,386	(32,450,074)	26,700	3,507.67	93,654,700	59,002,289	2,271,117	870,284	139,130,703
2038	139,130,703	(19,930,229)	(30,558,549)	(298,095)	30,558,549	(34,390,754)	26,700	3,602.63	96,190,206	61,501,357	4,104,356	907,145	205,643,561
2039	205,643,561	(11,051,276)	(17,403,401)	(298,095)	17,403,401	(36,548,235)	26,700	3,700.16	98,794,356	61,948,025	6,066,485	913,733	274,571,805
2040	274,571,805	(8,301,384)	(13,426,830)	(298,095)	13,426,830	(37,853,403)	26,700	3,800.34	101,469,007	63,317,509	8,099,868	933,933	346,923,116
2041	346,923,116	(7,196,624)	(11,955,096)	(251,971)	11,955,096	(401,410,600)	13,350	3,903.22	52,108,035	(349,554,537)	10,234,232	(7,602,811)	0
Total		(385,501,335)	(503,526,077)	(658,485,486)	503,526,077	(712,280,747)	476,277		1,469,941,579		(30,177,717)	(1,127,780)	

Table 10-2

Water
Retail Development Charge Calculation

Assumptions		
Total GFA Growth	14,730,349	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$20,626,345	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$4.22
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(3,780,370)	(384,076)	(384,076)	(3,236,780)	384,076	(6,337)	736,966	4.22	3,107,416	(135,701)	(124,752)	(2,239)	(4,043,062)
2023	(4,043,062)	(844,607)	(867,473)	(3,236,107)	867,473	(42,994)	737,005	4.33	3,191,710	(87,391)	(137,464)	(1,486)	(4,269,403)
2024	(4,269,403)	(1,484,240)	(1,565,693)	(3,235,439)	1,565,693	(119,571)	736,966	4.45	3,277,947	(77,063)	(147,294)	(1,329)	(4,495,090)
2025	(4,495,090)	(990,578)	(1,073,229)	(3,234,762)	1,073,229	(228,166)	736,966	4.57	3,366,691	(96,237)	(159,576)	(1,708)	(4,752,610)
2026	(4,752,610)	(682,006)	(758,915)	(3,245,626)	758,915	(303,314)	725,783	4.69	3,405,364	(143,576)	(171,094)	(2,584)	(5,069,864)
2027	(5,069,864)	(482,474)	(551,417)	(3,293,459)	551,417	(357,035)	697,281	4.82	3,360,207	(290,287)	(187,585)	(5,370)	(5,553,107)
2028	(5,553,107)	(696,154)	(817,171)	(3,310,884)	817,171	(404,036)	697,242	4.95	3,450,987	(263,934)	(208,242)	(4,949)	(6,030,231)
2029	(6,030,231)	(1,137,125)	(1,370,936)	(3,291,008)	1,370,936	(477,418)	697,281	5.08	3,544,611	(223,815)	(232,164)	(4,308)	(6,490,518)
2030	(6,490,518)	(1,582,405)	(1,959,421)	(3,081,718)	1,959,421	(596,573)	697,242	5.22	3,640,373	(37,918)	(266,111)	(777)	(6,795,325)
2031	(6,795,325)	(1,329,013)	(1,690,210)	(2,388,892)	1,690,210	(746,796)	735,504	5.36	3,944,107	808,419	(295,597)	11,924	(6,270,579)
2032	(6,270,579)	(1,267,630)	(1,655,790)	(1,772,136)	1,655,790	(881,205)	775,604	5.51	4,271,737	1,618,396	(272,770)	23,871	(4,901,082)
2033	(4,901,082)	(1,677,474)	(2,250,452)	(1,238,763)	2,250,452	(1,026,543)	775,604	5.66	4,387,385	2,122,078	(213,197)	31,301	(2,960,900)
2034	(2,960,900)	(1,743,890)	(2,402,893)	(970,103)	2,402,893	(1,209,816)	775,604	5.81	4,506,164	2,326,246	(128,799)	34,312	(729,142)
2035	(729,142)	(2,048,463)	(2,898,976)	(597,221)	2,898,976	(1,412,752)	775,604	5.97	4,628,159	2,618,186	(31,718)	38,618	1,895,945
2036	1,895,945	(1,715,643)	(2,493,703)	(358,413)	2,493,703	(1,635,753)	800,261	6.13	4,904,576	2,910,410	55,930	42,929	4,905,215
2037	4,905,215	(817,837)	(1,220,916)	(122,671)	1,220,916	(1,807,478)	806,907	6.29	5,079,187	3,149,038	144,704	46,448	8,245,405
2038	8,245,405	(1,110,119)	(1,702,120)	(16,604)	1,702,120	(1,915,575)	806,945	6.47	5,216,945	3,284,766	243,239	48,450	11,821,861
2039	11,821,861	(615,559)	(969,374)	(16,604)	969,374	(2,035,747)	806,907	6.64	5,357,927	3,305,576	348,745	48,757	15,524,939
2040	15,524,939	(462,389)	(747,878)	(16,604)	747,878	(2,108,445)	806,945	6.82	5,503,244	3,378,195	457,986	49,828	19,410,948
2041	19,410,948	(400,854)	(665,902)	(14,035)	665,902	(22,358,078)	401,733	7.00	2,813,932	(19,558,181)	572,623	(425,390)	0
Total		(21,472,534)	(28,046,545)	(36,677,828)	28,046,545	(39,673,633)	14,730,349		80,958,670		(753,136)	(73,703)	

Table 10-3

Water
Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Total GFA Growth	79,831,360	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$75,117,972	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$2.79
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(10,690,664)	(1,398,745)	(1,398,745)	(11,787,853)	1,398,745	(23,079)	4,021,383	2.79	11,215,710	(595,222)	(352,792)	(9,821)	(11,648,499)
2023	(11,648,499)	(3,075,927)	(3,159,201)	(11,785,403)	3,159,201	(156,578)	4,021,383	2.86	11,519,352	(422,629)	(396,049)	(7,185)	(12,474,361)
2024	(12,474,361)	(5,405,372)	(5,702,012)	(11,782,971)	5,702,012	(435,461)	4,021,383	2.94	11,831,215	(387,217)	(430,365)	(6,679)	(13,298,624)
2025	(13,298,624)	(3,607,532)	(3,908,535)	(11,780,505)	3,908,535	(830,944)	4,021,383	3.02	12,151,520	(459,929)	(472,101)	(8,164)	(14,238,817)
2026	(14,238,817)	(2,483,761)	(2,763,853)	(11,820,069)	2,763,853	(1,104,624)	3,963,103	3.10	12,299,621	(625,073)	(512,597)	(11,251)	(15,387,739)
2027	(15,387,739)	(1,757,095)	(2,008,176)	(11,994,269)	2,008,176	(1,300,267)	3,827,293	3.19	12,199,707	(1,094,830)	(569,346)	(20,254)	(17,072,169)
2028	(17,072,169)	(2,535,285)	(2,976,010)	(12,057,730)	2,976,010	(1,471,438)	3,827,293	3.27	12,529,988	(999,180)	(640,206)	(18,735)	(18,730,290)
2029	(18,730,290)	(4,141,234)	(4,992,737)	(11,985,344)	4,992,737	(1,738,683)	3,827,293	3.36	12,869,212	(854,815)	(721,116)	(16,455)	(20,322,677)
2030	(20,322,677)	(5,762,875)	(7,135,911)	(11,223,143)	7,135,911	(2,172,627)	3,827,293	3.45	13,217,619	(178,151)	(833,230)	(3,652)	(21,337,710)
2031	(21,337,710)	(4,840,060)	(6,155,485)	(8,699,976)	6,155,485	(2,719,716)	4,037,794	3.55	14,322,108	2,902,416	(928,190)	42,811	(19,320,673)
2032	(19,320,673)	(4,616,512)	(6,030,131)	(6,453,847)	6,030,131	(3,209,211)	4,161,884	3.64	15,161,916	5,498,858	(840,449)	81,108	(14,581,157)
2033	(14,581,157)	(6,109,101)	(8,195,800)	(4,511,385)	8,195,800	(3,738,512)	4,161,884	3.74	15,572,393	7,322,496	(634,280)	108,007	(7,784,934)
2034	(7,784,934)	(6,350,979)	(8,750,966)	(3,532,965)	8,750,966	(4,405,962)	4,161,884	3.84	15,993,984	8,055,056	(338,645)	118,812	50,289
2035	50,289	(7,460,185)	(10,557,624)	(2,174,987)	10,557,624	(5,145,025)	4,161,884	3.95	16,426,987	9,106,975	1,484	134,328	9,293,076
2036	9,293,076	(6,248,106)	(9,081,682)	(1,305,284)	9,081,682	(5,957,161)	4,293,709	4.05	17,406,112	10,143,667	274,146	149,619	19,860,508
2037	19,860,508	(2,978,436)	(4,446,388)	(446,748)	4,446,388	(6,582,558)	4,334,163	4.16	18,045,780	11,016,474	585,885	162,493	31,625,360
2038	31,625,360	(4,042,884)	(6,198,858)	(60,469)	6,198,858	(6,976,228)	4,334,163	4.28	18,534,332	11,497,635	932,948	169,590	44,225,533
2039	44,225,533	(2,241,772)	(3,530,312)	(60,469)	3,530,312	(7,413,877)	4,334,163	4.39	19,036,111	11,561,764	1,304,653	170,536	57,262,487
2040	57,262,487	(1,683,951)	(2,723,657)	(60,469)	2,723,657	(7,678,633)	4,334,163	4.51	19,551,474	11,812,372	1,689,243	174,232	70,938,334
2041	70,938,334	(1,459,848)	(2,425,113)	(51,113)	2,425,113	(81,422,961)	2,157,860	4.63	9,997,671	(71,476,404)	2,092,681	(1,554,612)	0
Total		(78,199,660)	(102,141,198)	(133,575,001)	102,141,198	(144,483,547)	79,831,360		289,882,812		(788,328)	(345,272)	

Table 10-4

Water
Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	1,554,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$467,809	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$0.91
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(85,739)	(8,711)	(8,711)	(73,411)	8,711	(144)	72,000	0.91	65,411	(8,143)	(2,829)	(134)	(96,846)
2023	(96,846)	(19,156)	(19,674)	(73,395)	19,674	(975)	72,000	0.93	67,182	(7,188)	(3,293)	(122)	(107,449)
2024	(107,449)	(33,663)	(35,510)	(73,380)	35,510	(2,712)	72,000	0.96	69,001	(7,091)	(3,707)	(122)	(118,370)
2025	(118,370)	(22,466)	(24,341)	(73,365)	24,341	(5,175)	72,000	0.98	70,869	(7,671)	(4,202)	(136)	(130,379)
2026	(130,379)	(15,468)	(17,212)	(73,611)	17,212	(6,879)	74,000	1.01	74,810	(5,681)	(4,694)	(102)	(140,856)
2027	(140,856)	(10,943)	(12,506)	(74,696)	12,506	(8,098)	74,000	1.04	76,835	(5,959)	(5,212)	(110)	(152,136)
2028	(152,136)	(15,789)	(18,534)	(75,091)	18,534	(9,164)	74,000	1.07	78,915	(5,340)	(5,705)	(100)	(163,281)
2029	(163,281)	(25,790)	(31,093)	(74,641)	31,093	(10,828)	74,000	1.10	81,052	(4,417)	(6,286)	(85)	(174,070)
2030	(174,070)	(35,889)	(44,440)	(69,894)	44,440	(13,530)	74,000	1.12	83,246	(178)	(7,137)	(4)	(181,389)
2031	(181,389)	(30,142)	(38,334)	(54,180)	38,334	(16,937)	78,000	1.16	90,121	19,003	(7,890)	280	(169,995)
2032	(169,995)	(28,750)	(37,554)	(40,192)	37,554	(19,986)	84,000	1.19	99,681	39,503	(7,395)	583	(137,305)
2033	(137,305)	(38,045)	(51,041)	(28,095)	51,041	(23,282)	84,000	1.22	102,380	51,002	(5,973)	752	(91,523)
2034	(91,523)	(39,552)	(54,498)	(22,002)	54,498	(27,439)	84,000	1.25	105,152	55,711	(3,981)	822	(38,972)
2035	(38,972)	(46,459)	(65,749)	(13,545)	65,749	(32,041)	84,000	1.29	107,998	62,412	(1,695)	921	22,665
2036	22,665	(38,911)	(56,558)	(8,129)	56,558	(37,099)	86,000	1.32	113,563	68,335	669	1,008	92,677
2037	92,677	(18,549)	(27,691)	(2,782)	27,691	(40,994)	88,000	1.36	119,350	75,574	2,734	1,115	172,100
2038	172,100	(25,178)	(38,604)	(377)	38,604	(43,446)	88,000	1.39	122,581	78,759	5,077	1,162	257,098
2039	257,098	(13,961)	(21,986)	(377)	21,986	(46,171)	88,000	1.43	125,900	79,352	7,584	1,170	345,205
2040	345,205	(10,487)	(16,962)	(377)	16,962	(47,820)	88,000	1.47	129,308	81,112	10,184	1,196	437,697
2041	437,697	(9,091)	(15,103)	(318)	15,103	(507,103)	44,000	1.51	66,405	(441,016)	12,912	(9,592)	0
Total		(487,001)	(636,100)	(831,859)	636,100	(899,823)	1,554,000		1,849,761		(30,840)	(1,500)	

Table 10-5

Wastewater

Residential Development Charge Calculation

Assumptions		
Gross Population Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$927,689,739	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per Capita	\$5,497.50
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(82,205,801)	(56,999,866)	(56,999,866)	(82,190,111)	56,999,866	(940,498)	20,326	5,497.50	111,742,121	28,611,512	(2,712,791)	271,809	(56,035,271)
2023	(56,035,271)	(69,252,923)	(71,127,802)	(82,190,111)	71,127,802	(5,401,259)	20,326	5,646.33	114,767,307	27,175,936	(1,905,199)	271,759	(30,492,775)
2024	(30,492,775)	(97,885,677)	(103,257,523)	(82,190,111)	103,257,523	(11,246,842)	20,326	5,799.19	117,874,392	24,437,439	(1,052,001)	250,484	(6,856,853)
2025	(6,856,853)	(116,292,745)	(125,995,912)	(82,190,111)	125,995,912	(19,388,723)	20,326	5,956.19	121,065,596	19,486,762	(243,418)	209,483	12,595,974
2026	12,595,974	(166,940,628)	(185,766,394)	(82,633,523)	185,766,394	(29,951,170)	21,883	6,117.45	133,868,057	21,283,363	277,111	234,117	34,390,565
2027	34,390,565	(183,938,747)	(210,222,700)	(83,823,892)	210,222,700	(44,492,980)	23,439	6,283.06	147,268,701	18,951,829	790,983	217,946	54,351,324
2028	54,351,324	(145,508,813)	(170,803,577)	(84,321,508)	170,803,577	(59,772,945)	23,439	6,453.16	151,255,694	7,161,242	1,277,256	84,145	62,873,967
2029	62,873,967	(101,369,419)	(122,212,575)	(82,727,663)	122,212,575	(71,947,534)	23,439	6,627.87	155,350,627	675,430	1,540,412	8,274	65,098,083
2030	65,098,083	(93,393,616)	(115,645,145)	(69,156,449)	115,645,145	(81,359,568)	23,439	6,807.30	159,556,422	9,040,405	1,757,648	122,045	76,018,181
2031	76,018,181	(62,447,570)	(79,419,479)	(57,993,493)	79,419,479	(89,783,417)	25,131	6,991.60	175,705,864	27,928,955	2,242,536	411,952	106,601,625
2032	106,601,625	(45,833,921)	(59,868,694)	(50,417,570)	59,868,694	(95,708,944)	26,823	7,180.88	192,612,786	46,486,273	3,144,748	685,673	156,918,318
2033	156,918,318	(54,988,492)	(73,771,032)	(40,774,644)	73,771,032	(100,798,703)	26,823	7,375.29	197,827,376	56,254,030	4,629,090	829,747	218,631,184
2034	218,631,184	(28,740,254)	(39,600,979)	(32,665,661)	39,600,979	(105,954,584)	26,823	7,574.96	203,183,140	64,562,895	6,449,620	952,303	290,596,002
2035	290,596,002	(53,570,338)	(75,812,530)	(22,117,766)	75,812,530	(109,908,867)	26,823	7,780.04	208,683,900	76,657,268	8,572,582	1,130,695	376,956,547
2036	376,956,547	(48,324,770)	(70,240,513)	(17,783,006)	70,240,513	(115,850,003)	26,761	7,990.66	213,838,161	80,205,151	11,120,218	1,183,026	469,464,942
2037	469,464,942	(25,598,180)	(38,214,506)	(13,702,843)	38,214,506	(120,770,201)	26,700	8,206.99	219,126,757	84,653,713	13,849,216	1,248,642	569,216,514
2038	569,216,514	(15,914,279)	(24,400,988)	(10,457,767)	24,400,988	(123,525,569)	26,700	8,429.18	225,059,157	91,075,821	16,791,887	1,343,368	678,427,590
2039	678,427,590	(16,842,649)	(26,523,578)	(10,457,767)	26,523,578	(125,522,953)	26,700	8,657.38	231,152,165	95,171,445	20,013,614	1,403,779	795,016,428
2040	795,016,428	(17,725,724)	(28,669,953)	(10,457,767)	28,669,953	(127,690,588)	26,700	8,891.77	237,410,128	99,261,774	23,452,985	1,464,111	919,195,297
2041	919,195,297	(16,537,087)	(27,471,557)	(17,239,274)	27,471,557	(1,030,846,899)	13,350	9,132.49	121,918,756	(926,167,417)	27,116,261	(20,144,141)	0
Total		(1,418,105,696)	(1,706,025,303)	(1,015,491,038)	1,706,025,303	(2,470,862,245)	476,277		3,439,267,109		137,112,759	(7,820,784)	

Table 10-6

Wastewater

Retail Development Charge Calculation

Assumptions		
Total GFA Growth	14,730,349	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$51,672,582	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$9.90
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(4,578,886)	(3,174,909)	(3,174,909)	(4,578,013)	3,174,909	(52,386)	736,966	9.90	7,298,763	2,668,365	(151,103)	25,349	(2,036,276)
2023	(2,036,276)	(3,857,407)	(3,961,839)	(4,578,013)	3,961,839	(300,852)	737,005	10.17	7,496,754	2,617,889	(69,233)	26,179	538,559
2024	538,559	(5,452,260)	(5,751,473)	(4,578,013)	5,751,473	(626,452)	736,966	10.45	7,699,310	2,494,845	11,040	25,572	3,070,017
2025	3,070,017	(6,477,539)	(7,018,008)	(4,578,013)	7,018,008	(1,079,957)	736,966	10.73	7,907,753	2,249,783	66,005	24,185	5,409,991
2026	5,409,991	(9,298,640)	(10,347,241)	(4,602,711)	10,347,241	(1,668,289)	725,783	11.02	7,998,590	1,727,590	119,020	19,003	7,275,604
2027	7,275,604	(10,245,440)	(11,709,464)	(4,669,015)	11,709,464	(2,478,272)	697,281	11.32	7,892,523	745,236	167,339	8,570	8,196,750
2028	8,196,750	(8,104,882)	(9,513,808)	(4,696,732)	9,513,808	(3,329,370)	697,242	11.63	8,105,749	79,647	192,624	936	8,469,956
2029	8,469,956	(5,646,305)	(6,807,275)	(4,607,954)	6,807,275	(4,007,498)	697,281	11.94	8,325,655	(289,798)	207,514	(5,579)	8,382,094
2030	8,382,094	(5,202,051)	(6,441,467)	(3,852,034)	6,441,467	(4,531,751)	697,242	12.26	8,550,582	166,797	226,317	2,252	8,777,459
2031	8,777,459	(3,478,347)	(4,423,688)	(3,230,254)	4,423,688	(5,000,962)	735,504	12.60	9,263,999	1,032,783	258,935	15,234	10,084,411
2032	10,084,411	(2,552,962)	(3,334,703)	(2,808,273)	3,334,703	(5,331,015)	775,604	12.94	10,033,542	1,894,254	297,490	27,940	12,304,095
2033	12,304,095	(3,062,875)	(4,109,067)	(2,271,159)	4,109,067	(5,614,516)	775,604	13.29	10,305,180	2,419,504	362,971	35,688	15,122,258
2034	15,122,258	(1,600,840)	(2,205,786)	(1,819,487)	2,205,786	(5,901,700)	775,604	13.65	10,584,171	2,862,984	446,107	42,229	18,473,577
2035	18,473,577	(2,983,883)	(4,222,779)	(1,231,966)	4,222,779	(6,121,955)	775,604	14.02	10,870,715	3,516,794	544,971	51,873	22,587,215
2036	22,587,215	(2,691,703)	(3,912,417)	(990,518)	3,912,417	(6,452,878)	800,261	14.40	11,519,970	4,076,573	666,323	60,129	27,390,240
2037	27,390,240	(1,425,826)	(2,128,559)	(763,252)	2,128,559	(6,726,934)	806,907	14.78	11,930,100	4,439,913	808,012	65,489	32,703,654
2038	32,703,654	(886,430)	(1,359,142)	(582,501)	1,359,142	(6,880,409)	806,945	15.19	12,253,667	4,790,757	964,758	70,664	38,529,833
2039	38,529,833	(938,140)	(1,477,371)	(582,501)	1,477,371	(6,991,664)	806,907	15.60	12,584,809	5,010,644	1,136,630	73,907	44,751,014
2040	44,751,014	(987,328)	(1,596,925)	(582,501)	1,596,925	(7,112,402)	806,945	16.02	12,926,133	5,231,231	1,320,155	77,161	51,379,560
2041	51,379,560	(921,120)	(1,530,174)	(960,232)	1,530,174	(57,418,465)	401,733	16.45	6,609,422	(51,769,276)	1,515,697	(1,125,982)	0
Total		(78,988,890)	(95,026,094)	(56,563,139)	95,026,094	(137,627,728)	14,730,349		190,157,385		9,091,570	(479,201)	

Table 10-7

Wastewater

Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Gross Population Growth	79,831,360	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$188,183,582	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$6.58
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(10,382,020)	(11,562,528)	(11,562,528)	(16,672,416)	11,562,528	(190,782)	4,021,383	6.58	26,441,979	9,578,781	(342,607)	90,998	(1,054,847)
2023	(1,054,847)	(14,048,084)	(14,428,406)	(16,672,416)	14,428,406	(1,095,655)	4,021,383	6.75	27,157,841	9,389,769	(35,865)	93,898	8,392,955
2024	8,392,955	(19,856,291)	(20,945,980)	(16,672,416)	20,945,980	(2,281,443)	4,021,383	6.94	27,893,083	8,939,224	172,056	91,627	17,595,861
2025	17,595,861	(23,590,199)	(25,558,504)	(16,672,416)	25,558,504	(3,933,038)	4,021,383	7.12	28,648,230	8,042,775	378,311	86,460	26,103,407
2026	26,103,407	(33,864,216)	(37,683,057)	(16,762,363)	37,683,057	(6,075,650)	3,963,103	7.32	28,997,389	6,159,375	574,275	67,753	32,904,811
2027	32,904,811	(37,312,316)	(42,644,064)	(17,003,832)	42,644,064	(9,025,483)	3,827,293	7.51	28,761,833	2,732,518	756,811	31,424	36,425,564
2028	36,425,564	(29,516,732)	(34,647,822)	(17,104,774)	34,647,822	(12,125,053)	3,827,293	7.72	29,540,500	310,673	856,001	3,650	37,595,888
2029	37,595,888	(20,562,974)	(24,791,047)	(16,781,460)	24,791,047	(14,594,691)	3,827,293	7.93	30,340,248	(1,035,903)	921,099	(19,941)	37,461,144
2030	37,461,144	(18,945,068)	(23,458,832)	(14,028,514)	23,458,832	(16,503,939)	3,827,293	8.14	31,161,647	629,194	1,011,451	8,494	39,110,282
2031	39,110,282	(12,667,605)	(16,110,388)	(11,764,087)	16,110,388	(18,212,732)	4,037,794	8.36	33,765,574	3,788,754	1,153,753	55,884	44,108,674
2032	44,108,674	(9,297,496)	(12,144,475)	(10,227,297)	12,144,475	(19,414,737)	4,161,884	8.59	35,745,491	6,103,457	1,301,206	90,026	51,603,363
2033	51,603,363	(11,154,517)	(14,964,591)	(8,271,212)	14,964,591	(20,447,204)	4,161,884	8.82	36,713,226	7,994,810	1,522,299	117,923	61,238,396
2034	61,238,396	(5,830,014)	(8,033,132)	(6,626,290)	8,033,132	(21,493,084)	4,161,884	9.06	37,707,160	9,587,786	1,806,533	141,420	72,774,135
2035	72,774,135	(10,866,842)	(15,378,712)	(4,486,630)	15,378,712	(22,295,217)	4,161,884	9.31	38,728,003	11,946,156	2,146,837	176,206	87,043,333
2036	87,043,333	(9,802,769)	(14,248,418)	(3,607,316)	14,248,418	(23,500,388)	4,293,709	9.56	41,036,371	13,928,668	2,567,778	205,448	103,745,227
2037	103,745,227	(5,192,638)	(7,751,883)	(2,779,647)	7,751,883	(24,498,459)	4,334,163	9.82	42,544,443	15,266,337	3,060,484	225,178	122,297,227
2038	122,297,227	(3,228,241)	(4,949,786)	(2,121,377)	4,949,786	(25,057,390)	4,334,163	10.08	43,696,245	16,517,477	3,607,768	243,633	142,666,105
2039	142,666,105	(3,416,563)	(5,380,357)	(2,121,377)	5,380,357	(25,462,564)	4,334,163	10.35	44,879,230	17,295,289	4,208,650	255,106	164,425,150
2040	164,425,150	(3,595,696)	(5,815,753)	(2,121,377)	5,815,753	(25,902,272)	4,334,163	10.64	46,094,242	18,070,592	4,850,542	266,541	187,612,825
2041	187,612,825	(3,354,579)	(5,572,656)	(3,497,019)	5,572,656	(209,109,203)	2,157,860	10.92	23,570,349	(189,035,873)	5,534,578	(4,111,530)	0
Total		(287,665,368)	(346,070,393)	(205,994,238)	346,070,393	(501,218,984)	79,831,360		683,423,083		36,051,961	(1,879,802)	

Table 10-8

Wastewater

Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	1,554,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$1,171,943	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$2.13
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(103,850)	(72,007)	(72,007)	(103,830)	72,007	(1,188)	72,000	2.13	153,283	48,265	(3,427)	459	(58,553)
2023	(58,553)	(87,487)	(89,855)	(103,830)	89,855	(6,823)	72,000	2.19	157,433	46,780	(1,991)	468	(13,297)
2024	(13,297)	(123,658)	(130,444)	(103,830)	130,444	(14,208)	72,000	2.25	161,695	43,657	(459)	447	30,349
2025	30,349	(146,912)	(159,170)	(103,830)	159,170	(24,494)	72,000	2.31	166,073	37,749	653	406	69,157
2026	69,157	(210,895)	(234,677)	(104,390)	234,677	(37,837)	74,000	2.37	175,307	33,080	1,521	364	104,122
2027	104,122	(232,368)	(265,573)	(105,894)	265,573	(56,208)	74,000	2.43	180,053	17,951	2,395	206	124,675
2028	124,675	(183,820)	(215,775)	(106,523)	215,775	(75,511)	74,000	2.50	184,928	2,894	2,930	34	130,533
2029	130,533	(128,059)	(154,390)	(104,509)	154,390	(90,891)	74,000	2.57	189,934	(5,466)	3,198	(105)	128,160
2030	128,160	(117,983)	(146,094)	(87,365)	146,094	(102,781)	74,000	2.64	195,076	4,931	3,460	67	136,617
2031	136,617	(78,890)	(100,330)	(73,263)	100,330	(113,423)	78,000	2.71	211,188	24,502	4,030	361	165,511
2032	165,511	(57,902)	(75,632)	(63,692)	75,632	(120,908)	84,000	2.78	233,590	48,990	4,883	723	220,106
2033	220,106	(69,467)	(93,194)	(51,510)	93,194	(127,338)	84,000	2.86	239,914	61,066	6,493	901	288,566
2034	288,566	(36,307)	(50,028)	(41,266)	50,028	(133,852)	84,000	2.93	246,409	71,291	8,513	1,052	369,421
2035	369,421	(67,675)	(95,773)	(27,941)	95,773	(138,847)	84,000	3.01	253,080	86,292	10,898	1,273	467,884
2036	467,884	(61,048)	(88,734)	(22,465)	88,734	(146,352)	86,000	3.09	266,121	97,303	13,803	1,435	580,425
2037	580,425	(32,338)	(48,276)	(17,311)	48,276	(152,568)	88,000	3.18	279,682	109,803	17,123	1,620	708,971
2038	708,971	(20,104)	(30,826)	(13,211)	30,826	(156,049)	88,000	3.26	287,254	117,994	20,915	1,740	849,619
2039	849,619	(21,277)	(33,507)	(13,211)	33,507	(158,572)	88,000	3.35	295,031	123,247	25,064	1,818	999,748
2040	999,748	(22,393)	(36,219)	(13,211)	36,219	(161,310)	88,000	3.44	303,018	128,496	29,493	1,895	1,159,632
2041	1,159,632	(20,891)	(34,705)	(21,778)	34,705	(1,302,261)	44,000	3.54	155,611	(1,168,428)	34,209	(25,413)	0
Total		(1,791,482)	(2,155,208)	(1,282,862)	2,155,208	(3,121,421)	1,554,000		4,334,680		183,702	(10,251)	

Table 10-9

Roads
Residential Development Charge Calculation

Assumptions		
Gross Population Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$2,629,953,320	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per Capita	\$6,796.78
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	419,312,544	(124,802,909)	(124,802,909)	(52,877,184)	124,802,909	(2,059,248)	20,326	6,796.78	138,151,396	83,214,964	7,966,938	790,542	511,284,989
2023	511,284,989	(136,184,483)	(139,871,394)	(52,877,184)	139,871,394	(11,556,513)	20,326	6,980.79	141,891,557	77,457,860	10,225,700	774,579	599,743,127
2024	599,743,127	(145,193,969)	(153,162,037)	(52,877,184)	153,162,037	(22,191,099)	20,326	7,169.78	145,732,975	70,664,692	12,294,734	724,313	683,426,867
2025	683,426,867	(144,701,617)	(156,775,146)	(52,877,184)	156,775,146	(33,733,426)	20,326	7,363.89	149,678,392	63,067,782	14,693,678	677,979	761,866,305
2026	761,866,305	(147,299,561)	(163,910,419)	(47,436,349)	163,910,419	(45,665,893)	21,883	7,563.25	165,506,603	72,404,361	16,761,059	796,448	851,828,172
2027	851,828,172	(134,751,245)	(154,006,543)	(38,902,839)	154,006,543	(57,914,383)	23,439	7,768.01	182,074,372	85,257,149	19,592,048	980,457	957,657,827
2028	957,657,827	(134,978,453)	(158,442,655)	(33,602,998)	158,442,655	(69,732,935)	23,439	7,978.31	187,003,656	83,667,723	22,504,959	983,096	1,064,813,604
2029	1,064,813,604	(105,605,121)	(127,319,205)	(32,548,634)	127,319,205	(81,295,016)	23,439	8,194.31	192,066,391	78,222,740	26,087,933	958,229	1,170,082,507
2030	1,170,082,507	(106,304,206)	(131,631,753)	(23,212,211)	131,631,753	(91,328,996)	23,439	8,416.15	197,266,188	82,724,982	31,592,228	1,116,787	1,285,516,503
2031	1,285,516,503	(210,047,185)	(267,133,504)	(12,354,800)	267,133,504	(104,761,335)	25,131	8,644.00	217,232,410	100,116,276	37,922,737	1,476,715	1,425,032,231
2032	1,425,032,231	(141,954,223)	(185,421,927)	(7,599,016)	185,421,927	(124,345,364)	26,823	8,878.02	238,135,135	106,190,755	42,038,451	1,566,314	1,574,827,750
2033	1,574,827,750	(130,550,204)	(175,142,525)	(6,813,919)	175,142,525	(138,949,000)	26,823	9,118.37	244,582,148	98,819,229	46,457,419	1,457,584	1,721,561,981
2034	1,721,561,981	(127,585,974)	(175,799,753)	(3,813,951)	175,799,753	(152,968,518)	26,823	9,365.24	251,203,700	94,421,231	50,786,078	1,392,713	1,868,162,004
2035	1,868,162,004	(115,972,167)	(164,123,352)	(1,914,613)	164,123,352	(166,772,334)	26,823	9,618.78	258,004,517	89,317,570	55,110,779	1,317,434	2,013,907,787
2036	2,013,907,787	(130,084,457)	(189,078,996)	(1,101,621)	189,078,996	(180,439,198)	26,761	9,879.19	264,376,942	82,836,123	59,410,280	1,221,833	2,157,376,022
2037	2,157,376,022	(148,568,768)	(221,792,410)	(793,321)	221,792,410	(196,270,364)	26,700	10,146.65	270,915,451	73,851,767	63,642,593	1,089,314	2,295,959,695
2038	2,295,959,695	(128,982,110)	(197,765,218)	(793,321)	197,765,218	(213,483,340)	26,700	10,421.35	278,249,923	63,973,261	67,730,811	943,606	2,428,607,373
2039	2,428,607,373	(168,128,122)	(264,765,915)	(793,321)	264,765,915	(230,754,846)	26,700	10,703.48	285,782,960	54,234,793	71,643,918	799,963	2,555,286,047
2040	2,555,286,047	(143,306,735)	(231,787,277)	(793,321)	231,787,277	(251,209,493)	26,700	10,993.26	293,519,938	41,517,124	75,380,938	612,378	2,672,796,486
2041	2,672,796,486	(123,436,639)	(205,054,052)	(670,572)	205,054,052	(2,843,132,334)	13,350	11,290.88	150,733,189	(2,693,069,716)	78,847,496	(58,574,266)	0
Total		(2,748,438,149)	(3,587,786,990)	(424,653,539)	3,587,786,990	(5,018,563,636)	476,277		4,252,107,840		810,690,776	(38,893,985)	

Table 10-10

Roads
Retail Development Charge Calculation

Assumptions		
Total GFA Growth	14,730,349	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$314,121,327	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$27.39
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	33,190,854	(14,906,445)	(14,906,445)	(6,315,645)	14,906,445	(245,956)	736,966	27.39	20,187,881	13,626,280	630,626	129,450	47,577,210
2023	47,577,210	(16,265,859)	(16,706,224)	(6,315,645)	16,706,224	(1,380,309)	737,005	28.13	20,735,509	13,039,556	951,544	130,396	61,698,705
2024	61,698,705	(17,341,951)	(18,293,656)	(6,315,645)	18,293,656	(2,650,502)	736,966	28.90	21,295,767	12,329,620	1,264,823	126,379	75,419,527
2025	75,419,527	(17,283,145)	(18,725,206)	(6,315,645)	18,725,206	(4,029,117)	736,966	29.68	21,872,305	11,527,544	1,621,520	123,921	88,692,512
2026	88,692,512	(17,593,443)	(19,577,442)	(5,665,792)	19,577,442	(5,454,329)	725,783	30.48	22,123,553	11,003,432	1,951,235	121,038	101,768,217
2027	101,768,217	(16,094,673)	(18,394,524)	(4,646,551)	18,394,524	(6,917,287)	697,281	31.31	21,830,179	10,266,341	2,340,669	118,063	114,493,290
2028	114,493,290	(16,121,811)	(18,924,373)	(4,013,538)	18,924,373	(8,328,894)	697,242	32.16	22,419,947	10,077,515	2,690,592	118,411	127,379,808
2029	127,379,808	(12,613,464)	(15,206,991)	(3,887,605)	15,206,991	(9,709,868)	697,281	33.03	23,028,193	9,430,720	3,120,805	115,526	140,046,859
2030	140,046,859	(12,696,962)	(15,722,082)	(2,772,464)	15,722,082	(10,908,325)	697,242	33.92	23,650,327	9,969,538	3,781,265	134,589	153,932,251
2031	153,932,251	(25,088,012)	(31,906,395)	(1,475,656)	31,906,395	(12,512,682)	735,504	34.84	25,623,589	11,635,251	4,541,001	171,620	170,280,124
2032	170,280,124	(16,954,996)	(22,146,774)	(907,626)	22,146,774	(14,851,796)	775,604	35.78	27,752,094	11,992,672	5,023,264	176,892	187,472,951
2033	187,472,951	(15,592,902)	(20,919,003)	(813,854)	20,919,003	(16,596,053)	775,604	36.75	28,503,424	11,093,517	5,530,452	163,629	204,260,550
2034	204,260,550	(15,238,854)	(20,997,503)	(455,538)	20,997,503	(18,270,542)	775,604	37.74	29,275,095	10,549,014	6,025,686	155,598	220,990,848
2035	220,990,848	(13,851,703)	(19,602,875)	(228,681)	19,602,875	(19,919,269)	775,604	38.77	30,067,657	9,919,707	6,519,230	146,316	237,576,101
2036	237,576,101	(15,537,273)	(22,583,574)	(131,578)	22,583,574	(21,551,637)	800,261	39.82	31,863,450	10,180,235	7,008,495	150,158	254,914,990
2037	254,914,990	(17,745,037)	(26,490,860)	(94,754)	26,490,860	(23,442,510)	806,907	40.89	32,997,842	9,460,578	7,519,992	139,544	272,035,104
2038	272,035,104	(15,405,609)	(23,621,055)	(94,754)	23,621,055	(25,498,426)	806,945	42.00	33,892,807	8,299,627	8,025,036	122,419	288,482,186
2039	288,482,186	(20,081,204)	(31,623,611)	(94,754)	31,623,611	(27,561,333)	806,907	43.14	34,808,723	7,152,636	8,510,224	105,501	304,250,548
2040	304,250,548	(17,116,540)	(27,684,646)	(94,754)	27,684,646	(30,004,433)	806,945	44.31	35,752,803	5,653,615	8,975,391	83,391	318,962,945
2041	318,962,945	(14,743,258)	(24,491,633)	(80,093)	24,491,633	(339,583,404)	401,733	45.51	18,281,210	(321,382,288)	9,409,407	(6,990,065)	0
Total		(328,273,141)	(428,524,872)	(50,720,571)	428,524,872	(599,416,672)	14,730,349		525,962,354		95,441,259	(4,457,225)	

Table 10-11

Roads
Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Gross Population Growth	79,831,360	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$562,468,435	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$8.57
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	98,054,954	(26,691,613)	(26,691,613)	(11,308,850)	26,691,613	(440,412)	4,021,383	8.57	34,479,048	22,729,787	1,863,044	215,933	122,863,718
2023	122,863,718	(29,125,792)	(29,914,312)	(11,308,850)	29,914,312	(2,471,593)	4,021,383	8.81	35,412,496	21,632,054	2,457,274	216,321	147,169,366
2024	147,169,366	(31,052,652)	(32,756,783)	(11,308,850)	32,756,783	(4,746,013)	4,021,383	9.04	36,371,216	20,316,353	3,016,972	208,243	170,710,934
2025	170,710,934	(30,947,352)	(33,529,520)	(11,308,850)	33,529,520	(7,214,572)	4,021,383	9.29	37,355,891	18,832,469	3,670,285	202,449	193,416,137
2026	193,416,137	(31,502,975)	(35,055,541)	(10,145,218)	35,055,541	(9,766,570)	3,963,103	9.54	37,811,177	17,899,389	4,255,155	196,893	215,767,574
2027	215,767,574	(28,819,265)	(32,937,398)	(8,320,155)	32,937,398	(12,386,156)	3,827,293	9.80	37,504,024	16,797,713	4,962,654	193,174	237,721,115
2028	237,721,115	(28,867,858)	(33,886,150)	(7,186,677)	33,886,150	(14,913,791)	3,827,293	10.06	38,519,367	16,418,899	5,586,446	192,922	259,919,382
2029	259,919,382	(22,585,780)	(27,229,774)	(6,961,180)	27,229,774	(17,386,575)	3,827,293	10.34	39,562,199	15,214,444	6,368,025	186,377	281,688,228
2030	281,688,228	(22,735,293)	(28,152,099)	(4,964,398)	28,152,099	(19,532,543)	3,827,293	10.62	40,633,263	16,136,321	7,605,582	217,840	305,647,972
2031	305,647,972	(44,922,817)	(57,131,875)	(2,642,323)	57,131,875	(22,405,319)	4,037,794	10.90	44,028,657	18,981,015	9,016,615	279,970	333,925,572
2032	333,925,572	(30,359,767)	(39,656,210)	(1,625,203)	39,656,210	(26,593,758)	4,161,884	11.20	46,610,372	18,391,412	9,850,804	271,273	362,439,061
2033	362,439,061	(27,920,788)	(37,457,753)	(1,457,294)	37,457,753	(29,717,039)	4,161,884	11.50	47,872,251	16,697,918	10,691,952	246,294	390,075,225
2034	390,075,225	(27,286,828)	(37,598,314)	(815,690)	37,598,314	(32,715,395)	4,161,884	11.81	49,168,292	15,637,207	11,507,219	230,649	417,450,300
2035	417,450,300	(24,802,981)	(35,101,081)	(409,478)	35,101,081	(35,667,619)	4,161,884	12.13	50,499,421	14,422,324	12,314,784	212,729	444,400,136
2036	444,400,136	(27,821,178)	(40,438,348)	(235,604)	40,438,348	(38,590,553)	4,293,709	12.46	53,509,421	14,683,264	13,109,804	216,578	472,409,783
2037	472,409,783	(31,774,420)	(47,434,770)	(169,668)	47,434,770	(41,976,366)	4,334,163	12.80	55,475,873	13,329,839	13,936,089	196,615	499,872,326
2038	499,872,326	(27,585,419)	(42,296,071)	(169,668)	42,296,071	(45,657,708)	4,334,163	13.15	56,977,767	11,150,391	14,746,234	164,468	525,933,419
2039	525,933,419	(35,957,582)	(56,625,518)	(169,668)	56,625,518	(49,351,567)	4,334,163	13.50	58,520,321	8,999,087	15,515,036	132,737	550,580,278
2040	550,580,278	(30,649,029)	(49,572,373)	(169,668)	49,572,373	(53,726,205)	4,334,163	13.87	60,104,637	6,208,765	16,242,118	91,579	573,122,740
2041	573,122,740	(26,399,409)	(43,854,935)	(143,415)	43,854,935	(608,061,057)	2,157,860	14.24	30,734,582	(577,469,890)	16,907,121	(12,559,970)	0
Total		(587,808,800)	(767,320,439)	(90,820,704)	767,320,439	(1,073,320,813)	79,831,360		891,150,275		183,623,214	(8,686,926)	

Table 10-12

Roads
Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	1,554,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$5,826,207	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$4.53
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	1,067,133	(276,479)	(276,479)	(117,140)	276,479	(4,562)	72,000	4.53	326,077	204,375	20,276	1,942	1,293,725
2023	1,293,725	(301,693)	(309,861)	(117,140)	309,861	(25,601)	72,000	4.65	334,905	192,163	25,874	1,922	1,513,684
2024	1,513,684	(321,652)	(339,304)	(117,140)	339,304	(49,161)	72,000	4.78	343,972	177,671	31,031	1,821	1,724,207
2025	1,724,207	(320,561)	(347,308)	(117,140)	347,308	(74,731)	72,000	4.91	353,284	161,413	37,070	1,735	1,924,426
2026	1,924,426	(326,317)	(363,115)	(105,087)	363,115	(101,165)	74,000	5.04	372,928	166,676	42,337	1,833	2,135,272
2027	2,135,272	(298,518)	(341,175)	(86,183)	341,175	(128,299)	74,000	5.18	383,024	168,542	49,111	1,938	2,354,864
2028	2,354,864	(299,021)	(351,002)	(74,442)	351,002	(154,481)	74,000	5.32	393,393	164,471	55,339	1,933	2,576,606
2029	2,576,606	(233,950)	(282,054)	(72,106)	282,054	(180,095)	74,000	5.46	404,044	151,843	63,127	1,860	2,793,436
2030	2,793,436	(235,499)	(291,607)	(51,423)	291,607	(202,324)	74,000	5.61	414,982	161,236	75,423	2,177	3,032,272
2031	3,032,272	(465,323)	(591,788)	(27,370)	591,788	(232,081)	78,000	5.76	449,256	189,805	89,452	2,800	3,314,329
2032	3,314,329	(314,475)	(410,770)	(16,834)	410,770	(275,466)	84,000	5.92	496,912	204,612	97,773	3,018	3,619,732
2033	3,619,732	(289,211)	(387,998)	(15,095)	387,998	(307,817)	84,000	6.08	510,365	187,453	106,782	2,765	3,916,732
2034	3,916,732	(282,645)	(389,454)	(8,449)	389,454	(338,875)	84,000	6.24	524,182	176,858	115,544	2,609	4,211,742
2035	4,211,742	(256,916)	(363,587)	(4,241)	363,587	(369,455)	84,000	6.41	538,374	164,677	124,246	2,429	4,503,094
2036	4,503,094	(288,180)	(418,872)	(2,440)	418,872	(399,732)	86,000	6.58	566,114	163,942	132,841	2,418	4,802,296
2037	4,802,296	(329,128)	(491,343)	(1,757)	491,343	(434,803)	88,000	6.76	594,963	158,402	141,668	2,336	5,104,702
2038	5,104,702	(285,738)	(438,115)	(1,757)	438,115	(472,935)	88,000	6.94	611,070	136,377	150,589	2,012	5,393,679
2039	5,393,679	(372,459)	(586,543)	(1,757)	586,543	(511,197)	88,000	7.13	627,613	114,658	159,114	1,691	5,669,143
2040	5,669,143	(317,471)	(513,485)	(1,757)	513,485	(556,511)	88,000	7.33	644,605	86,336	167,240	1,273	5,923,992
2041	5,923,992	(273,453)	(454,262)	(1,486)	454,262	(6,298,468)	44,000	7.52	331,028	(5,968,925)	174,758	(129,824)	0
Total		(6,088,689)	(7,948,121)	(940,746)	7,948,121	(11,117,760)	1,554,000		9,221,092		1,859,594	(89,313)	

Table 10-13

Transit
Residential Development Charge Calculation

Assumptions		
Total GFA Growth	222,074	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$401,618,309	
Discount Rate Applied to Post 2031 Debt Payments	2.59%	

Calculated Development Charge per Capita	\$2,017.69
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	13,275,822	(15,655,055)	(15,655,055)	(198,012)	15,655,055	(215,257)	20,326	2,017.69	41,011,563	40,598,293	179,224	274,038	54,327,378
2023	54,327,378	(29,895,999)	(30,705,371)	(195,210)	30,705,371	(2,331,810)	20,326	2,072.31	42,121,865	39,594,846	814,911	296,961	95,034,095
2024	95,034,095	(16,806,561)	(17,728,884)	(86,548)	17,728,884	(5,888,255)	20,326	2,128.42	43,262,227	37,287,425	1,615,580	316,943	134,254,043
2025	134,254,043	(14,756,995)	(15,988,281)	(86,548)	15,988,281	(8,041,687)	20,326	2,186.04	44,433,462	36,305,227	2,416,573	326,747	173,302,590
2026	173,302,590	(11,467,969)	(12,761,203)	(86,548)	12,761,203	(9,961,688)	21,883	2,245.22	49,132,217	39,083,981	3,206,098	361,527	215,954,196
2027	215,954,196	(36,992,911)	(42,279,019)	(86,548)	42,279,019	(12,037,350)	23,439	2,306.01	54,050,518	41,926,621	4,211,107	408,785	262,500,708
2028	262,500,708	(46,327,257)	(54,380,631)	(86,548)	54,380,631	(17,496,019)	23,439	2,368.44	55,513,823	37,931,256	5,250,014	379,313	306,061,291
2029	306,061,291	(73,095,729)	(88,125,368)	(86,548)	88,125,368	(24,872,585)	23,439	2,432.56	57,016,744	32,057,611	6,427,287	336,605	344,882,794
2030	344,882,794	(75,285,196)	(93,222,298)	(86,548)	93,222,298	(36,082,958)	23,439	2,498.42	58,560,354	22,390,848	8,104,746	263,092	375,641,480
2031	375,641,480	(89,841,624)	(114,258,650)	(312,399)	114,258,650	(442,026,255)	25,131	2,566.05	64,487,518	(377,851,136)	9,766,678	(7,557,023)	(0)
Total		(410,125,295)	(485,104,758)	(1,311,455)	485,104,758	(558,953,864)	222,074		509,590,292		41,992,217	(4,593,011)	

Table 10-14

Transit
Retail Development Charge Calculation

Assumptions		
Total GFA Growth	7,198,237	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$50,339,114	
Discount Rate Applied to Post 2031 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$7.90
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	1,082,970	(1,962,215)	(1,962,215)	(24,819)	1,962,215	(26,980)	736,966	7.90	5,818,763	5,766,964	14,620	38,927	6,903,481
2023	6,903,481	(3,747,185)	(3,848,632)	(24,468)	3,848,632	(292,271)	737,005	8.11	5,976,606	5,659,868	103,552	42,449	12,709,350
2024	12,709,350	(2,106,546)	(2,222,150)	(10,848)	2,222,150	(738,038)	736,966	8.33	6,138,090	5,389,204	216,059	45,808	18,360,421
2025	18,360,421	(1,849,652)	(2,003,982)	(10,848)	2,003,982	(1,007,951)	736,966	8.55	6,304,266	5,285,467	330,488	47,569	24,023,946
2026	24,023,946	(1,437,403)	(1,599,498)	(10,848)	1,599,498	(1,248,605)	725,783	8.79	6,376,683	5,117,230	444,443	47,334	29,632,953
2027	29,632,953	(4,636,717)	(5,299,281)	(10,848)	5,299,281	(1,508,770)	697,281	9.02	6,292,124	4,772,506	577,843	46,532	35,029,834
2028	35,029,834	(5,806,690)	(6,816,106)	(10,848)	6,816,106	(2,192,963)	697,242	9.27	6,462,113	4,258,302	700,597	42,583	40,031,316
2029	40,031,316	(9,161,869)	(11,045,694)	(10,848)	11,045,694	(3,117,547)	697,281	9.52	6,637,428	3,509,033	840,658	36,845	44,417,851
2030	44,417,851	(9,436,298)	(11,684,547)	(10,848)	11,684,547	(4,522,663)	697,242	9.78	6,816,746	2,283,235	1,043,820	26,828	47,771,734
2031	47,771,734	(11,260,811)	(14,321,257)	(39,155)	14,321,257	(55,399,089)	735,504	10.04	7,385,500	(48,052,744)	1,242,065	(961,055)	(0)
Total		(51,405,386)	(60,803,363)	(164,377)	60,803,363	(70,054,876)	7,198,237		64,208,319		5,514,143	(586,179)	

Table 10-15

Transit
Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Total GFA Growth	39,395,602	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$89,891,379	
Discount Rate Applied to Post 2031 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$2.54
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	3,273,771	(3,503,960)	(3,503,960)	(44,320)	3,503,960	(48,179)	4,021,383	2.54	10,227,064	10,134,565	44,196	68,408	13,520,940
2023	13,520,940	(6,691,410)	(6,872,565)	(43,692)	6,872,565	(521,912)	4,021,383	2.61	10,503,940	9,938,335	202,814	74,538	23,736,627
2024	23,736,627	(3,761,693)	(3,968,130)	(19,371)	3,968,130	(1,317,926)	4,021,383	2.68	10,788,312	9,451,015	403,523	80,334	33,671,498
2025	33,671,498	(3,302,954)	(3,578,543)	(19,371)	3,578,543	(1,799,914)	4,021,383	2.76	11,080,383	9,261,098	606,087	83,350	43,622,033
2026	43,622,033	(2,566,794)	(2,856,249)	(19,371)	2,856,249	(2,229,654)	3,963,103	2.83	11,215,429	8,966,404	807,008	82,939	53,478,383
2027	53,478,383	(8,279,861)	(9,463,013)	(19,371)	9,463,013	(2,694,235)	3,827,293	2.91	11,124,322	8,410,716	1,042,828	82,004	63,013,933
2028	63,013,933	(10,369,101)	(12,171,631)	(19,371)	12,171,631	(3,916,010)	3,827,293	2.99	11,425,490	7,490,109	1,260,279	74,901	71,839,221
2029	71,839,221	(16,360,499)	(19,724,476)	(19,371)	19,724,476	(5,567,054)	3,827,293	3.07	11,734,812	6,148,386	1,508,624	64,558	79,560,789
2030	79,560,789	(16,850,552)	(20,865,286)	(19,371)	20,865,286	(8,076,193)	3,827,293	3.15	12,052,507	3,956,943	1,869,679	46,494	85,433,904
2031	85,433,904	(20,108,614)	(25,573,703)	(69,920)	25,573,703	(98,926,175)	4,037,794	3.23	13,059,638	(85,936,456)	2,221,282	(1,718,729)	0
Total		(91,795,437)	(108,577,559)	(293,531)	108,577,559	(125,097,252)	39,395,602		113,211,898		9,966,318	(1,061,203)	

Table 10-16

Transit
Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	736,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$905,770	
Discount Rate Applied to Post 2031 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$1.36
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	37,697	(35,307)	(35,307)	(447)	35,307	(485)	72,000	1.36	98,241	97,309	509	657	136,172
2023	136,172	(67,424)	(69,250)	(440)	69,250	(5,259)	72,000	1.40	100,900	95,201	2,043	714	234,129
2024	234,129	(37,904)	(39,984)	(195)	39,984	(13,280)	72,000	1.44	103,632	90,157	3,980	766	329,033
2025	329,033	(33,281)	(36,058)	(195)	36,058	(18,136)	72,000	1.48	106,438	88,106	5,923	793	423,855
2026	423,855	(25,864)	(28,780)	(195)	28,780	(22,467)	74,000	1.52	112,356	89,694	7,841	830	522,220
2027	522,220	(83,430)	(95,352)	(195)	95,352	(27,148)	74,000	1.56	115,398	88,055	10,183	859	621,317
2028	621,317	(104,482)	(122,645)	(195)	122,645	(39,459)	74,000	1.60	118,522	78,868	12,426	789	713,400
2029	713,400	(164,853)	(198,749)	(195)	198,749	(56,095)	74,000	1.65	121,731	65,440	14,981	687	794,508
2030	794,508	(169,791)	(210,244)	(195)	210,244	(81,378)	74,000	1.69	125,026	43,453	18,671	511	857,143
2031	857,143	(202,620)	(257,688)	(705)	257,688	(996,833)	78,000	1.74	135,352	(862,185)	22,286	(17,244)	(0)
Total		(924,956)	(1,094,057)	(2,958)	1,094,057	(1,260,540)	736,000		1,137,596		98,843	(10,639)	

Table 10-17

Toronto-York Spadina Subway Extension
Residential Development Charge Calculation

Assumptions		
Total GFA Growth	222,074	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2031	\$72,191,651	
Discount Rate Applied to Post 2031 Debt Payments	2.91%	

Calculated Development Charge per Capita	\$905.40
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	15,238,194	(2,690,224)	(2,690,224)	(17,445,308)	2,690,224	(44,389)	20,326	905.40	18,403,186	913,489	289,526	8,678	16,449,886
2023	16,449,886	0	0	(17,445,308)	0	(197,854)	20,326	929.91	18,901,414	1,258,251	328,998	12,583	18,049,717
2024	18,049,717	0	0	(17,445,308)	0	(197,854)	20,326	955.09	19,413,130	1,769,968	370,019	18,142	20,207,846
2025	20,207,846	0	0	(17,445,308)	0	(197,854)	20,326	980.95	19,938,700	2,295,538	434,469	24,677	22,962,530
2026	22,962,530	0	0	(17,667,689)	0	(197,854)	21,883	1,007.50	22,047,181	4,181,638	505,176	45,998	27,695,341
2027	27,695,341	0	0	(17,934,005)	0	(197,854)	23,439	1,034.78	24,254,178	6,122,318	636,993	70,407	34,525,058
2028	34,525,058	0	0	(18,761,350)	0	(197,854)	23,439	1,062.79	24,910,809	5,951,605	811,339	69,931	41,357,933
2029	41,357,933	0	0	(18,702,368)	0	(197,854)	23,439	1,091.57	25,585,217	6,684,995	1,013,269	81,891	49,138,089
2030	49,138,089	0	0	(18,320,784)	0	(197,854)	23,439	1,121.12	26,277,884	7,759,246	1,326,728	104,750	58,328,813
2031	58,328,813	0	0	(85,703,733)	0	(2,005,095)	25,131	1,151.47	28,937,590	(58,771,238)	1,720,700	(1,278,274)	0
Total		(2,690,224)	(2,690,224)	(246,871,164)	2,690,224	(3,632,316)	222,074		228,669,287		7,437,216	(841,218)	

Table 10-18

Toronto-York Spadina Subway Extension
Retail Development Charge Calculation

Assumptions		
Total GFA Growth	7,198,237	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2031	\$9,048,551	
Discount Rate Applied to Post 2031 Debt Payments	2.92%	

Calculated Development Charge per Capita	\$3.61
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	1,112,574	(337,195)	(337,195)	(2,186,607)	337,195	(5,564)	736,966	3.61	2,663,448	471,277	21,139	4,477	1,609,467
2023	1,609,467	0	0	(2,186,607)	0	(24,799)	737,005	3.71	2,735,698	524,292	32,189	5,243	2,171,191
2024	2,171,191	0	0	(2,186,607)	0	(24,799)	736,966	3.81	2,809,615	598,208	44,509	6,132	2,820,041
2025	2,820,041	0	0	(2,186,607)	0	(24,799)	736,966	3.92	2,885,679	674,273	60,631	7,248	3,562,193
2026	3,562,193	0	0	(2,214,480)	0	(24,799)	725,783	4.02	2,918,827	679,547	78,368	7,475	4,327,584
2027	4,327,584	0	0	(2,247,861)	0	(24,799)	697,281	4.13	2,880,121	607,461	99,534	6,986	5,041,566
2028	5,041,566	0	0	(2,351,560)	0	(24,799)	697,242	4.24	2,957,931	581,571	118,477	6,833	5,748,447
2029	5,748,447	0	0	(2,344,168)	0	(24,799)	697,281	4.36	3,038,179	669,212	140,837	8,198	6,566,694
2030	6,566,694	0	0	(2,296,340)	0	(24,799)	697,242	4.48	3,120,259	799,120	177,301	10,788	7,553,903
2031	7,553,903	0	0	(10,740,553)	0	(251,243)	735,504	4.60	3,380,597	(7,611,199)	222,840	(165,544)	0
Total		(337,195)	(337,195)	(30,941,389)	337,195	(455,200)	7,198,237		29,390,353		995,826	(102,163)	

Table 10-19

Toronto-York Spadina Subway Extension
Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Total GFA Growth	39,395,602	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2031	\$16,158,145	
Discount Rate Applied to Post 2031 Debt Payments	2.92%	

Calculated Development Charge per Capita	\$1.14
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	3,671,279	(602,134)	(602,134)	(3,904,660)	602,134	(9,935)	4,021,383	1.14	4,572,397	657,802	69,754	6,249	4,405,085
2023	4,405,085	0	0	(3,904,660)	0	(44,284)	4,021,383	1.17	4,696,185	747,241	88,102	7,472	5,247,900
2024	5,247,900	0	0	(3,904,660)	0	(44,284)	4,021,383	1.20	4,823,325	874,381	107,582	8,962	6,238,825
2025	6,238,825	0	0	(3,904,660)	0	(44,284)	4,021,383	1.23	4,953,906	1,004,962	134,135	10,803	7,388,725
2026	7,388,725	0	0	(3,954,434)	0	(44,284)	3,963,103	1.27	5,014,283	1,015,565	162,552	11,171	8,578,014
2027	8,578,014	0	0	(4,014,041)	0	(44,284)	3,827,293	1.30	4,973,551	915,225	197,294	10,525	9,701,058
2028	9,701,058	0	0	(4,199,220)	0	(44,284)	3,827,293	1.33	5,108,199	864,695	227,975	10,160	10,803,888
2029	10,803,888	0	0	(4,186,018)	0	(44,284)	3,827,293	1.37	5,246,493	1,016,190	264,695	12,448	12,097,222
2030	12,097,222	0	0	(4,100,611)	0	(44,284)	3,827,293	1.41	5,388,531	1,243,635	326,625	16,789	13,684,271
2031	13,684,271	0	0	(19,178,286)	0	(448,587)	4,037,794	1.45	5,838,807	(13,788,067)	403,686	(299,890)	0
Total		(602,134)	(602,134)	(55,251,250)	602,134	(812,797)	39,395,602		50,615,676		1,982,400	(205,309)	

Table 10-20

Toronto-York Spadina Subway Extension
Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	736,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2031	\$162,814	
Discount Rate Applied to Post 2031 Debt Payments	2.92%	

Calculated Development Charge per Capita	\$0.62
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	32,524	(6,067)	(6,067)	(39,344)	6,067	(100)	72,000	0.62	44,566	5,122	618	49	38,313
2023	38,313	0	0	(39,344)	0	(446)	72,000	0.64	45,773	5,982	766	60	45,121
2024	45,121	0	0	(39,344)	0	(446)	72,000	0.65	47,012	7,222	925	74	53,342
2025	53,342	0	0	(39,344)	0	(446)	72,000	0.67	48,285	8,494	1,147	91	63,074
2026	63,074	0	0	(39,846)	0	(446)	74,000	0.69	50,970	10,678	1,388	117	75,257
2027	75,257	0	0	(40,447)	0	(446)	74,000	0.71	52,350	11,457	1,731	132	88,576
2028	88,576	0	0	(42,312)	0	(446)	74,000	0.73	53,767	11,008	2,082	129	101,795
2029	101,795	0	0	(42,179)	0	(446)	74,000	0.75	55,222	12,597	2,494	154	117,040
2030	117,040	0	0	(41,319)	0	(446)	74,000	0.77	56,718	14,952	3,160	202	135,355
2031	135,355	0	0	(193,262)	0	(4,521)	78,000	0.79	61,402	(136,381)	3,993	(2,966)	0
Total		(6,067)	(6,067)	(556,743)	6,067	(8,191)	736,000		516,065		18,303	(1,958)	

Table 10-21

Yonge North Subway Extension
Residential Development Charge Calculation

Assumptions		
Total GFA Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$232,056,238	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per Capita	\$1,531.64
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	0	(42,220,914)	(42,220,914)	0	42,220,914	(696,645)	20,326	1,531.64	31,132,039	30,435,394	0	289,136	30,724,531
2023	30,724,531	(22,388,381)	(22,994,500)	0	22,994,500	(3,496,067)	20,326	1,573.10	31,974,874	28,478,807	614,491	284,788	60,102,617
2024	60,102,617	(91,472,151)	(96,492,031)	0	96,492,031	(6,474,508)	20,326	1,615.69	32,840,528	26,366,020	1,232,104	270,252	87,970,992
2025	87,970,992	(110,112,569)	(119,300,077)	0	119,300,077	(14,110,609)	20,326	1,659.43	33,729,616	19,619,007	1,891,376	210,904	109,692,279
2026	109,692,279	(120,045,626)	(133,583,079)	0	133,583,079	(23,350,134)	21,883	1,704.36	37,296,461	13,946,326	2,413,230	153,410	126,205,245
2027	126,205,245	(99,026,201)	(113,176,564)	0	113,176,564	(33,104,162)	23,439	1,750.50	41,029,962	7,925,800	2,902,721	91,147	137,124,913
2028	137,124,913	(93,967,068)	(110,301,988)	0	110,301,988	(41,674,374)	23,439	1,797.89	42,140,763	466,389	3,222,435	5,480	140,819,217
2029	140,819,217	(46,368,383)	(55,902,456)	0	55,902,456	(49,093,371)	23,439	1,846.56	43,281,636	(5,811,735)	3,450,071	(111,876)	138,345,677
2030	138,345,677	(3,364,687)	(4,166,342)	0	4,166,342	(52,399,616)	23,439	1,896.56	44,453,396	(7,946,219)	3,735,333	(162,897)	133,971,894
2031	133,971,894	0	0	0	0	(52,640,869)	25,131	1,947.90	48,952,730	(3,688,139)	3,952,171	(80,217)	134,155,708
2032	134,155,708	0	0	0	0	(52,640,869)	26,823	2,000.64	53,663,102	1,022,233	3,957,593	15,078	139,150,612
2033	139,150,612	0	0	0	0	(52,640,869)	26,823	2,054.80	55,115,918	2,475,049	4,104,943	36,507	145,767,112
2034	145,767,112	0	0	0	0	(52,640,869)	26,823	2,110.43	56,608,067	3,967,198	4,300,130	58,516	154,092,956
2035	154,092,956	0	0	0	0	(52,640,869)	26,823	2,167.57	58,140,613	5,499,744	4,545,742	81,121	164,219,563
2036	164,219,563	0	0	0	0	(52,640,869)	26,761	2,226.25	59,576,621	6,935,752	4,844,477	102,302	176,102,094
2037	176,102,094	0	0	0	0	(52,640,869)	26,700	2,286.52	61,050,056	8,409,187	5,195,012	124,036	189,830,329
2038	189,830,329	0	0	0	0	(52,640,869)	26,700	2,348.42	62,702,860	10,061,990	5,599,995	148,414	205,640,728
2039	205,640,728	0	0	0	0	(52,640,869)	26,700	2,412.00	64,400,409	11,759,540	6,066,401	173,453	223,640,123
2040	223,640,123	0	0	0	0	(52,640,869)	26,700	2,477.30	66,143,916	13,503,047	6,597,384	199,170	243,939,723
2041	243,939,723	0	0	0	0	(279,757,324)	13,350	2,544.37	33,967,312	(245,790,012)	7,196,222	(5,345,933)	0
Total		(628,965,979)	(698,137,950)	0	698,137,950	(1,030,565,502)	476,277		958,200,880		75,821,831	(3,457,209)	

Table 10-22

Yonge North Subway Extension
Retail Development Charge Calculation

Assumptions		
Total GFA Growth	14,730,349	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$27,716,771	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$5.92
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	0	(5,042,861)	(5,042,861)	0	5,042,861	(83,207)	736,966	5.92	4,361,990	4,278,783	0	40,648	4,319,431
2023	4,319,431	(2,674,066)	(2,746,460)	0	2,746,460	(417,570)	737,005	6.08	4,480,316	4,062,746	86,389	40,627	8,509,194
2024	8,509,194	(10,925,423)	(11,524,997)	0	11,524,997	(773,314)	736,966	6.24	4,601,371	3,828,056	174,438	39,238	12,550,926
2025	12,550,926	(13,151,833)	(14,249,188)	0	14,249,188	(1,685,370)	736,966	6.41	4,725,943	3,040,574	269,845	32,686	15,894,031
2026	15,894,031	(14,338,236)	(15,955,148)	0	15,955,148	(2,788,937)	725,783	6.59	4,780,231	1,991,293	349,669	21,904	18,256,897
2027	18,256,897	(11,827,678)	(13,517,796)	0	13,517,796	(3,953,957)	697,281	6.76	4,716,841	762,884	419,909	8,773	19,448,463
2028	19,448,463	(11,223,416)	(13,174,457)	0	13,174,457	(4,977,582)	697,242	6.95	4,844,272	(133,310)	457,039	(2,500)	19,769,692
2029	19,769,692	(5,538,234)	(6,676,983)	0	6,676,983	(5,863,707)	697,281	7.14	4,975,696	(888,011)	484,357	(17,094)	19,348,944
2030	19,348,944	(401,878)	(497,627)	0	497,627	(6,258,604)	697,242	7.33	5,110,120	(1,148,484)	522,421	(23,544)	18,699,338
2031	18,699,338	0	0	0	0	(6,287,419)	735,504	7.53	5,536,482	(750,937)	551,630	(16,333)	18,483,698
2032	18,483,698	0	0	0	0	(6,287,419)	775,604	7.73	5,996,388	(291,032)	545,269	(6,330)	18,731,606
2033	18,731,606	0	0	0	0	(6,287,419)	775,604	7.94	6,158,728	(128,692)	552,582	(2,799)	19,152,697
2034	19,152,697	0	0	0	0	(6,287,419)	775,604	8.16	6,325,462	38,043	565,005	561	19,756,306
2035	19,756,306	0	0	0	0	(6,287,419)	775,604	8.38	6,496,711	209,292	582,811	3,087	20,551,495
2036	20,551,495	0	0	0	0	(6,287,419)	800,261	8.60	6,884,728	597,308	606,269	8,810	21,763,883
2037	21,763,883	0	0	0	0	(6,287,419)	806,907	8.84	7,129,835	842,416	642,035	12,426	23,260,759
2038	23,260,759	0	0	0	0	(6,287,419)	806,945	9.08	7,323,210	1,035,791	686,192	15,278	24,998,020
2039	24,998,020	0	0	0	0	(6,287,419)	806,907	9.32	7,521,112	1,233,692	737,442	18,197	26,987,351
2040	26,987,351	0	0	0	0	(6,287,419)	806,945	9.57	7,725,099	1,437,680	796,127	21,206	29,242,363
2041	29,242,363	0	0	0	0	(33,414,183)	401,733	9.83	3,950,016	(29,464,167)	862,650	(640,846)	0
Total		(75,123,625)	(83,385,518)	0	83,385,518	(123,090,627)	14,730,349		113,644,551		9,892,079	(446,003)	

Table 10-23

**Yonge North Subway Extension
Industrial/Office/Institutional Development Charge Calculation**

Assumptions		
Total GFA Growth	79,831,360	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$49,629,896	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$1.96
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	0	(9,029,792)	(9,029,792)	0	9,029,792	(148,992)	4,021,383	1.96	7,864,008	7,715,016	0	73,293	7,788,309
2023	7,788,309	(4,788,206)	(4,917,836)	0	4,917,836	(747,704)	4,021,383	2.01	8,076,909	7,329,205	155,766	73,292	15,346,572
2024	15,346,572	(19,563,160)	(20,636,762)	0	20,636,762	(1,384,704)	4,021,383	2.06	8,295,575	6,910,871	314,605	70,836	22,642,885
2025	22,642,885	(23,549,788)	(25,514,722)	0	25,514,722	(3,017,838)	4,021,383	2.12	8,520,160	5,502,323	486,822	59,150	28,691,179
2026	28,691,179	(25,674,173)	(28,569,429)	0	28,569,429	(4,993,896)	3,963,103	2.18	8,624,002	3,630,106	631,206	39,931	32,992,423
2027	32,992,423	(21,178,746)	(24,205,085)	0	24,205,085	(7,079,991)	3,827,293	2.23	8,553,947	1,473,956	758,826	16,950	35,242,155
2028	35,242,155	(20,096,748)	(23,590,300)	0	23,590,300	(8,912,903)	3,827,293	2.30	8,785,527	(127,376)	828,191	(2,388)	35,940,581
2029	35,940,581	(9,916,812)	(11,955,865)	0	11,955,865	(10,499,605)	3,827,293	2.36	9,023,377	(1,476,228)	880,544	(28,417)	35,316,479
2030	35,316,479	(719,606)	(891,056)	0	891,056	(11,206,712)	3,827,293	2.42	9,267,666	(1,939,046)	953,545	(39,750)	34,291,228
2031	34,291,228	0	0	0	0	(11,258,309)	4,037,794	2.49	10,042,090	(1,216,219)	1,011,591	(26,453)	34,060,147
2032	34,060,147	0	0	0	0	(11,258,309)	4,161,884	2.55	10,630,930	(627,379)	1,004,774	(13,646)	34,423,896
2033	34,423,896	0	0	0	0	(11,258,309)	4,161,884	2.62	10,918,740	(339,569)	1,015,505	(7,386)	35,092,447
2034	35,092,447	0	0	0	0	(11,258,309)	4,161,884	2.69	11,214,342	(43,967)	1,035,227	(956)	36,082,751
2035	36,082,751	0	0	0	0	(11,258,309)	4,161,884	2.77	11,517,947	259,638	1,064,441	3,830	37,410,659
2036	37,410,659	0	0	0	0	(11,258,309)	4,293,709	2.84	12,204,470	946,161	1,103,614	13,956	39,474,391
2037	39,474,391	0	0	0	0	(11,258,309)	4,334,163	2.92	12,652,980	1,394,671	1,164,495	20,571	42,054,128
2038	42,054,128	0	0	0	0	(11,258,309)	4,334,163	3.00	12,995,533	1,737,224	1,240,597	25,624	45,057,572
2039	45,057,572	0	0	0	0	(11,258,309)	4,334,163	3.08	13,347,360	2,089,051	1,329,198	30,814	48,506,635
2040	48,506,635	0	0	0	0	(11,258,309)	4,334,163	3.16	13,708,712	2,450,403	1,430,946	36,143	52,424,127
2041	52,424,127	0	0	0	0	(59,831,733)	2,157,860	3.25	7,009,967	(52,821,766)	1,546,512	(1,148,873)	0
Total		(134,517,030)	(149,310,848)	0	149,310,848	(220,407,169)	79,831,360		203,254,243		17,956,405	(803,479)	

Table 10-24

Yonge North Subway Extension
Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	1,554,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.90% - 2.95%	3.30% - 4.35%
In-year Transactions	0.95% - 1.48%	1.65% - 2.18%
New Debt Term (Years)	20	
New Debt interest	From 3.30% to 4.35%	
Target Reserve Balance 2041	\$514,080	
Discount Rate Applied to Post 2041 Debt Payments	2.95%	

Calculated Development Charge per sqft	\$1.04
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	0	(93,533)	(93,533)	0	93,533	(1,543)	72,000	1.04	74,906	73,363	0	697	74,060
2023	74,060	(49,598)	(50,940)	0	50,940	(7,745)	72,000	1.07	76,934	69,189	1,481	692	145,422
2024	145,422	(202,641)	(213,761)	0	213,761	(14,343)	72,000	1.10	79,017	64,674	2,981	663	213,740
2025	213,740	(243,935)	(264,289)	0	264,289	(31,260)	72,000	1.13	81,156	49,897	4,595	536	268,769
2026	268,769	(265,940)	(295,930)	0	295,930	(51,728)	74,000	1.16	85,669	33,941	5,913	373	308,996
2027	308,996	(219,375)	(250,723)	0	250,723	(73,337)	74,000	1.19	87,988	14,652	7,107	168	330,923
2028	330,923	(208,168)	(244,355)	0	244,355	(92,322)	74,000	1.22	90,370	(1,952)	7,777	(37)	336,711
2029	336,711	(102,721)	(123,842)	0	123,842	(108,758)	74,000	1.25	92,817	(15,941)	8,249	(307)	328,712
2030	328,712	(7,454)	(9,230)	0	9,230	(116,082)	74,000	1.29	95,330	(20,753)	8,875	(425)	316,409
2031	316,409	0	0	0	0	(116,617)	78,000	1.32	103,203	(13,414)	9,334	(292)	312,038
2032	312,038	0	0	0	0	(116,617)	84,000	1.36	114,151	(2,466)	9,205	(54)	318,723
2033	318,723	0	0	0	0	(116,617)	84,000	1.40	117,241	624	9,402	9	328,759
2034	328,759	0	0	0	0	(116,617)	84,000	1.43	120,415	3,798	9,698	56	342,311
2035	342,311	0	0	0	0	(116,617)	84,000	1.47	123,675	7,058	10,098	104	359,572
2036	359,572	0	0	0	0	(116,617)	86,000	1.51	130,048	13,431	10,607	198	383,808
2037	383,808	0	0	0	0	(116,617)	88,000	1.55	136,675	20,058	11,322	296	415,484
2038	415,484	0	0	0	0	(116,617)	88,000	1.60	140,375	23,758	12,257	350	451,849
2039	451,849	0	0	0	0	(116,617)	88,000	1.64	144,175	27,558	13,330	406	493,144
2040	493,144	0	0	0	0	(116,617)	88,000	1.68	148,078	31,462	14,548	464	539,617
2041	539,617	0	0	0	0	(619,754)	44,000	1.73	76,044	(543,710)	15,919	(11,826)	0
Total		(1,393,365)	(1,546,604)	0	1,546,604	(2,283,040)	1,554,000		2,118,266		172,700	(7,926)	

Table 10-25

Police Services
Residential Development Charge Calculation

Assumptions		
Total GFA Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$44,642,917	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$283.41
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	7,967,494	(5,864,032)	(5,864,032)	(5,645,128)	5,864,032	(80,630)	20,326	283.41	5,760,493	34,735	107,561	234	8,110,024
2023	8,110,024	(2,390,145)	(2,454,853)	(5,645,128)	2,454,853	(742,267)	20,326	291.08	5,916,447	(470,948)	121,650	(6,829)	7,753,898
2024	7,753,898	(2,863,202)	(3,020,331)	(5,645,128)	3,020,331	(1,051,445)	20,326	298.96	6,076,622	(619,951)	131,816	(9,609)	7,256,154
2025	7,256,154	(4,978,160)	(5,393,524)	(5,645,128)	5,393,524	(1,461,024)	20,326	307.05	6,241,134	(865,018)	130,611	(13,840)	6,507,906
2026	6,507,906	(2,512,060)	(2,795,343)	(5,711,567)	2,795,343	(2,084,192)	21,883	315.36	6,901,122	(894,636)	120,396	(14,538)	5,719,128
2027	5,719,128	(1,933,770)	(2,210,097)	(5,982,584)	2,210,097	(2,420,759)	23,439	323.90	7,591,948	(811,395)	111,523	(13,591)	5,005,665
2028	5,005,665	(1,914,758)	(2,247,613)	(6,051,803)	2,247,613	(2,695,990)	23,439	332.67	7,797,484	(950,308)	100,113	(16,155)	4,139,315
2029	4,139,315	(4,020,208)	(4,846,827)	(5,874,322)	4,846,827	(3,021,950)	23,439	341.68	8,008,585	(887,688)	86,926	(15,535)	3,323,018
2030	3,323,018	(3,981,294)	(4,929,858)	(4,376,742)	4,929,858	(3,634,813)	23,439	350.93	8,225,401	213,846	78,091	2,513	3,617,468
2031	3,617,468	(2,145,461)	(2,728,551)	(3,405,489)	2,728,551	(4,219,837)	25,131	360.43	9,057,931	1,432,606	94,054	18,624	5,162,751
2032	5,162,751	(7,608,601)	(9,938,425)	(2,098,867)	9,938,425	(4,632,207)	26,823	370.19	9,929,512	3,198,437	134,232	41,580	8,537,000
2033	8,537,000	(7,736,822)	(10,379,506)	(1,995,605)	10,379,506	(5,249,870)	26,823	380.21	10,198,332	2,952,857	221,962	38,387	11,750,206
2034	11,750,206	(3,468,957)	(4,779,850)	(1,720,884)	4,779,850	(6,155,561)	26,823	390.50	10,474,431	2,598,186	305,505	33,776	14,687,674
2035	14,687,674	(1,903,349)	(2,693,612)	(1,629,816)	2,693,612	(6,315,289)	26,823	401.07	10,758,004	2,812,899	381,880	36,568	17,919,020
2036	17,919,020	(1,977,479)	(2,874,284)	(1,157,338)	2,874,284	(6,040,072)	26,761	411.93	11,023,715	3,826,305	465,895	49,742	22,260,962
2037	22,260,962	(2,329,261)	(3,477,262)	(378,772)	3,477,262	(6,082,998)	26,700	423.08	11,296,351	4,834,582	578,785	62,850	27,737,178
2038	27,737,178	(2,427,216)	(3,721,593)	0	3,721,593	(6,257,169)	26,700	434.54	11,602,176	5,345,007	721,167	69,485	33,872,837
2039	33,872,837	(7,660,772)	(12,064,081)	0	12,064,081	(6,573,808)	26,700	446.30	11,916,281	5,342,473	880,694	69,452	40,165,456
2040	40,165,456	(9,537,265)	(15,425,770)	0	15,425,770	(7,570,389)	26,700	458.39	12,238,890	4,668,500	1,044,302	60,691	45,938,949
2041	45,938,949	(2,345,483)	(3,896,338)	0	3,896,338	(52,494,294)	13,350	470.80	6,285,116	(46,209,178)	1,194,413	(924,184)	0
Total		(79,598,296)	(105,741,751)	(62,964,102)	105,741,751	(128,784,564)	476,277		177,299,976		7,011,575	(530,379)	

Table 10-26

Police Services
Retail Development Charge Calculation

Assumptions		
Total GFA Growth	14,730,349	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$3,210,988	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.67
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	389,490	(421,777)	(421,777)	(406,032)	421,777	(5,799)	736,966	0.67	495,184	83,353	5,258	563	478,664
2023	478,664	(171,914)	(176,568)	(406,032)	176,568	(53,388)	737,005	0.69	508,617	49,197	7,180	369	535,410
2024	535,410	(205,939)	(217,240)	(406,032)	217,240	(75,626)	736,966	0.71	522,360	40,702	9,102	346	585,560
2025	585,560	(358,059)	(387,935)	(406,032)	387,935	(105,086)	736,966	0.73	536,501	25,384	10,540	228	621,712
2026	621,712	(180,683)	(201,058)	(410,810)	201,058	(149,908)	725,783	0.75	542,664	(18,054)	11,502	(293)	614,867
2027	614,867	(139,088)	(158,963)	(430,304)	158,963	(174,116)	697,281	0.77	535,468	(68,951)	11,990	(1,155)	556,751
2028	556,751	(137,721)	(161,662)	(435,282)	161,662	(193,912)	697,242	0.79	549,934	(79,260)	11,135	(1,347)	487,279
2029	487,279	(289,158)	(348,613)	(422,517)	348,613	(217,357)	697,281	0.81	564,854	(75,020)	10,233	(1,313)	421,179
2030	421,179	(286,359)	(354,585)	(314,802)	354,585	(261,438)	697,242	0.83	580,114	3,875	9,898	46	434,997
2031	434,997	(154,314)	(196,254)	(244,943)	196,254	(303,516)	735,504	0.85	628,516	80,056	11,310	1,041	527,404
2032	527,404	(547,256)	(714,831)	(150,963)	714,831	(333,176)	775,604	0.88	680,726	196,586	13,713	2,556	740,258
2033	740,258	(556,479)	(746,557)	(143,536)	746,557	(377,602)	775,604	0.90	699,155	178,016	19,247	2,314	939,836
2034	939,836	(249,508)	(343,796)	(123,762)	343,796	(442,745)	775,604	0.93	718,083	151,576	24,436	1,970	1,117,818
2035	1,117,818	(136,900)	(193,741)	(117,226)	193,741	(454,234)	775,604	0.95	737,523	166,064	29,063	2,159	1,315,103
2036	1,315,103	(142,232)	(206,736)	(83,243)	206,736	(434,438)	800,261	0.98	781,572	263,891	34,193	3,431	1,616,618
2037	1,616,618	(167,535)	(250,106)	(27,244)	250,106	(437,526)	806,907	1.00	809,397	344,628	42,032	4,480	2,007,758
2038	2,007,758	(174,580)	(267,679)	0	267,679	(450,053)	806,945	1.03	831,350	381,296	52,202	4,957	2,446,213
2039	2,446,213	(551,009)	(867,722)	0	867,722	(472,828)	806,907	1.06	853,816	380,988	63,602	4,953	2,895,755
2040	2,895,755	(685,978)	(1,109,514)	0	1,109,514	(544,508)	806,945	1.09	876,973	332,465	75,290	4,322	3,307,832
2041	3,307,832	(168,701)	(280,248)	0	280,248	(3,775,706)	401,733	1.12	448,416	(3,327,290)	86,004	(66,546)	0
Total		(5,725,190)	(7,605,585)	(4,528,758)	7,605,585	(9,262,963)	14,730,349		12,901,224		537,927	(36,920)	

Table 10-27

Police Services
Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Total GFA Growth	79,831,360	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$11,695,124	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.44
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	2,662,699	(1,536,203)	(1,536,203)	(1,478,857)	1,536,203	(21,123)	4,021,383	0.44	1,756,772	256,792	35,946	1,733	2,957,171
2023	2,957,171	(626,147)	(643,099)	(1,478,857)	643,099	(194,452)	4,021,383	0.45	1,804,333	131,024	44,358	983	3,133,535
2024	3,133,535	(750,074)	(791,237)	(1,478,857)	791,237	(275,447)	4,021,383	0.46	1,853,181	98,877	53,270	840	3,286,523
2025	3,286,523	(1,304,131)	(1,412,944)	(1,478,857)	1,412,944	(382,745)	4,021,383	0.47	1,903,352	41,750	59,157	376	3,387,807
2026	3,387,807	(658,085)	(732,297)	(1,496,262)	732,297	(545,997)	3,963,103	0.49	1,926,550	(115,708)	62,674	(1,880)	3,332,892
2027	3,332,892	(506,591)	(578,980)	(1,567,260)	578,980	(634,167)	3,827,293	0.50	1,910,900	(290,528)	64,991	(4,866)	3,102,490
2028	3,102,490	(501,610)	(588,808)	(1,585,393)	588,808	(706,270)	3,827,293	0.51	1,962,633	(329,029)	62,050	(5,593)	2,829,917
2029	2,829,917	(1,053,176)	(1,269,725)	(1,538,899)	1,269,725	(791,662)	3,827,293	0.53	2,015,768	(314,793)	59,428	(5,509)	2,569,043
2030	2,569,043	(1,042,981)	(1,291,477)	(1,146,577)	1,291,477	(952,213)	3,827,293	0.54	2,070,340	(28,450)	60,373	(533)	2,600,433
2031	2,600,433	(562,047)	(714,800)	(892,137)	714,800	(1,105,472)	4,037,794	0.56	2,243,342	245,732	67,611	3,195	2,916,971
2032	2,916,971	(1,993,228)	(2,603,573)	(549,841)	2,603,573	(1,213,501)	4,161,884	0.57	2,374,885	611,543	75,841	7,950	3,612,305
2033	3,612,305	(2,026,819)	(2,719,123)	(522,790)	2,719,123	(1,375,311)	4,161,884	0.59	2,439,180	541,080	93,920	7,034	4,254,339
2034	4,254,339	(908,764)	(1,252,179)	(450,768)	1,252,179	(1,612,575)	4,161,884	0.60	2,505,216	441,873	110,613	5,744	4,812,569
2035	4,812,569	(498,621)	(705,647)	(426,964)	705,647	(1,654,419)	4,161,884	0.62	2,573,039	491,657	125,127	6,392	5,435,744
2036	5,435,744	(518,041)	(752,977)	(303,188)	752,977	(1,582,320)	4,293,709	0.63	2,726,405	840,896	141,329	10,932	6,428,901
2037	6,428,901	(610,198)	(910,940)	(99,227)	910,940	(1,593,565)	4,334,163	0.65	2,826,599	1,133,806	167,151	14,739	7,744,598
2038	7,744,598	(635,859)	(974,947)	0	974,947	(1,639,193)	4,334,163	0.67	2,903,123	1,263,930	201,360	16,431	9,226,319
2039	9,226,319	(2,006,896)	(3,160,432)	0	3,160,432	(1,722,143)	4,334,163	0.69	2,981,719	1,259,576	239,884	16,374	10,742,154
2040	10,742,154	(2,498,481)	(4,041,095)	0	4,041,095	(1,983,218)	4,334,163	0.71	3,062,443	1,079,225	279,296	14,030	12,114,705
2041	12,114,705	(614,447)	(1,020,725)	0	1,020,725	(13,751,952)	2,157,860	0.73	1,565,984	(12,185,968)	314,982	(243,719)	0
Total		(20,852,399)	(27,701,210)	(16,494,732)	27,701,210	(33,737,746)	79,831,360		45,405,764		2,319,363	(155,348)	

Table 10-28

Police Services
Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	1,554,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$72,718	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.14
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	10,290	(9,552)	(9,552)	(9,195)	9,552	(131)	72,000	0.14	10,312	985	139	7	11,421
2023	11,421	(3,893)	(3,999)	(9,195)	3,999	(1,209)	72,000	0.15	10,591	187	171	1	11,780
2024	11,780	(4,664)	(4,920)	(9,195)	4,920	(1,713)	72,000	0.15	10,878	(30)	200	(0)	11,949
2025	11,949	(8,109)	(8,785)	(9,195)	8,785	(2,380)	72,000	0.16	11,172	(403)	215	(6)	11,755
2026	11,755	(4,092)	(4,553)	(9,304)	4,553	(3,395)	74,000	0.16	11,793	(905)	217	(15)	11,053
2027	11,053	(3,150)	(3,600)	(9,745)	3,600	(3,943)	74,000	0.16	12,113	(1,576)	216	(26)	9,666
2028	9,666	(3,119)	(3,661)	(9,858)	3,661	(4,391)	74,000	0.17	12,440	(1,809)	193	(31)	8,020
2029	8,020	(6,548)	(7,895)	(9,569)	7,895	(4,922)	74,000	0.17	12,777	(1,714)	168	(30)	6,445
2030	6,445	(6,485)	(8,030)	(7,129)	8,030	(5,921)	74,000	0.18	13,123	73	151	1	6,670
2031	6,670	(3,495)	(4,445)	(5,547)	4,445	(6,874)	78,000	0.18	14,207	1,786	173	23	8,653
2032	8,653	(12,394)	(16,189)	(3,419)	16,189	(7,545)	84,000	0.19	15,714	4,750	225	62	13,690
2033	13,690	(12,602)	(16,907)	(3,251)	16,907	(8,551)	84,000	0.19	16,140	4,337	356	56	18,440
2034	18,440	(5,651)	(7,786)	(2,803)	7,786	(10,027)	84,000	0.20	16,577	3,747	479	49	22,715
2035	22,715	(3,100)	(4,388)	(2,655)	4,388	(10,287)	84,000	0.20	17,025	4,084	591	53	27,442
2036	27,442	(3,221)	(4,682)	(1,885)	4,682	(9,839)	86,000	0.21	17,903	6,179	713	80	34,415
2037	34,415	(3,794)	(5,664)	(617)	5,664	(9,909)	88,000	0.21	18,815	8,289	895	108	43,707
2038	43,707	(3,954)	(6,062)	0	6,062	(10,192)	88,000	0.22	19,324	9,132	1,136	119	54,094
2039	54,094	(12,479)	(19,651)	0	19,651	(10,708)	88,000	0.23	19,847	9,139	1,406	119	64,758
2040	64,758	(15,535)	(25,127)	0	25,127	(12,331)	88,000	0.23	20,385	8,053	1,684	105	74,600
2041	74,600	(3,821)	(6,347)	0	6,347	(85,507)	44,000	0.24	10,468	(75,039)	1,940	(1,501)	0
Total		(129,657)	(172,241)	(102,561)	172,241	(209,776)	1,554,000		291,604		11,271	(827)	

Table 10-29

Waste Diversion

Residential Development Charge Calculation

Assumptions		
Total GFA Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$8,824,838	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$95.43
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	1,070,899	(102,000)	(102,000)	0	102,000	(1,403)	20,326	95.43	1,939,767	1,938,365	14,457	13,084	3,036,805
2023	3,036,805	(102,000)	(104,761)	0	104,761	(13,811)	20,326	98.02	1,992,283	1,978,472	45,552	14,839	5,075,667
2024	5,075,667	(102,000)	(107,598)	0	107,598	(26,675)	20,326	100.67	2,046,220	2,019,544	86,286	17,166	7,198,664
2025	7,198,664	(1,535,600)	(1,663,727)	0	1,663,727	(64,812)	20,326	103.40	2,101,617	2,036,805	129,576	18,331	9,383,376
2026	9,383,376	(1,535,600)	(1,708,768)	0	1,708,768	(270,794)	21,883	106.19	2,323,859	2,053,065	173,592	18,991	11,629,024
2027	11,629,024	(12,835,280)	(14,669,379)	0	14,669,379	(699,617)	23,439	109.07	2,556,485	1,856,867	226,766	18,104	13,730,762
2028	13,730,762	(12,163,000)	(14,277,375)	0	14,277,375	(2,515,545)	23,439	112.02	2,625,696	110,151	274,615	1,102	14,116,630
2029	14,116,630	(102,000)	(122,973)	0	122,973	(4,049,484)	23,439	115.06	2,696,782	(1,352,702)	296,449	(23,672)	13,036,704
2030	13,036,704	(102,000)	(126,302)	0	126,302	(4,065,056)	23,439	118.17	2,769,791	(1,295,265)	306,363	(24,286)	12,023,516
2031	12,023,516	(102,000)	(129,721)	0	129,721	(4,081,241)	25,131	121.37	3,050,135	(1,031,106)	312,611	(20,622)	11,284,399
2032	11,284,399	(102,000)	(133,233)	0	133,233	(4,096,491)	26,823	124.66	3,343,627	(752,864)	293,394	(15,057)	10,809,872
2033	10,809,872	(102,000)	(136,840)	0	136,840	(4,101,187)	26,823	128.03	3,434,149	(667,038)	281,057	(13,341)	10,410,550
2034	10,410,550	(102,000)	(140,545)	0	140,545	(4,105,890)	26,823	131.50	3,527,122	(578,768)	270,674	(11,575)	10,090,881
2035	10,090,881	(13,097,716)	(18,535,836)	0	18,535,836	(4,453,626)	26,823	135.06	3,622,611	(831,015)	262,363	(16,620)	9,505,609
2036	9,505,609	0	0	0	0	(6,246,453)	26,761	138.71	3,712,086	(2,534,367)	247,146	(50,687)	7,167,700
2037	7,167,700	0	0	0	0	(5,817,629)	26,700	142.47	3,803,892	(2,013,737)	186,360	(40,275)	5,300,049
2038	5,300,049	0	0	0	0	(4,001,701)	26,700	146.32	3,906,874	(94,827)	137,801	(1,897)	5,341,126
2039	5,341,126	0	0	0	0	(2,467,763)	26,700	150.29	4,012,645	1,544,882	138,869	20,083	7,044,961
2040	7,044,961	0	0	0	0	(2,452,190)	26,700	154.36	4,121,279	1,669,088	183,169	21,698	8,918,917
2041	8,918,917	0	0	0	0	(11,087,808)	13,350	158.53	2,116,427	(8,971,381)	231,892	(179,428)	0
Total		(42,085,196)	(51,959,060)	0	51,959,060	(64,619,176)	476,277		59,703,345		4,098,994	(254,062)	

Table 10-30

Public Works
Residential Development Charge Calculation

Assumptions		
Total GFA Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$26,860,327	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$144.02
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	19,444,951	(3,416,075)	(3,416,075)	(78,446)	3,416,075	(46,971)	20,326	144.02	2,927,312	2,801,895	262,507	18,913	22,528,266
2023	22,528,266	(10,340,246)	(10,620,187)	(78,446)	10,620,187	(565,662)	20,326	147.92	3,006,562	2,362,455	337,924	17,718	25,246,363
2024	25,246,363	(9,796,055)	(10,333,651)	(78,446)	10,333,651	(1,860,870)	20,326	151.92	3,087,959	1,148,643	429,188	9,763	26,833,958
2025	26,833,958	(1,570,140)	(1,701,148)	(78,446)	1,701,148	(2,994,155)	20,326	156.03	3,171,559	98,958	483,011	891	27,416,818
2026	27,416,818	(3,999,386)	(4,450,394)	(78,446)	4,450,394	(3,248,698)	21,883	160.26	3,506,945	179,802	507,211	1,663	28,105,494
2027	28,105,494	(6,151,268)	(7,030,254)	(78,446)	7,030,254	(3,843,358)	23,439	164.60	3,858,002	(63,801)	548,057	(1,069)	28,588,681
2028	28,588,681	(673,837)	(790,974)	(78,446)	790,974	(4,610,762)	23,439	169.05	3,962,450	(726,758)	571,774	(12,355)	28,421,342
2029	28,421,342	(3,294,318)	(3,971,682)	(75,231)	3,971,682	(4,765,128)	23,439	173.63	4,069,725	(770,634)	596,848	(13,486)	28,234,070
2030	28,234,070	(4,630,713)	(5,734,005)	(49,350)	5,734,005	(5,299,100)	23,439	178.33	4,179,904	(1,168,545)	663,501	(21,910)	27,707,115
2031	27,707,115	(4,918,128)	(6,254,770)	(44,818)	6,254,770	(6,041,174)	25,131	183.16	4,602,972	(1,483,021)	720,385	(29,660)	26,914,819
2032	26,914,819	(867,322)	(1,132,904)	0	1,132,904	(6,691,343)	26,823	188.12	5,045,883	(1,645,460)	699,785	(32,909)	25,936,235
2033	25,936,235	(9,437,179)	(12,660,657)	0	12,660,657	(6,548,032)	26,823	193.21	5,182,489	(1,365,542)	674,342	(27,311)	25,217,724
2034	25,217,724	(691,554)	(952,887)	0	952,887	(6,637,142)	26,823	198.44	5,322,795	(1,314,347)	655,661	(26,287)	24,532,751
2035	24,532,751	(4,233,057)	(5,990,605)	0	5,990,605	(5,726,423)	26,823	203.81	5,466,898	(259,525)	637,852	(5,190)	24,905,887
2036	24,905,887	(3,923,706)	(5,703,144)	0	5,703,144	(6,231,939)	26,761	209.33	5,601,924	(630,015)	647,553	(12,600)	24,910,825
2037	24,910,825	(197,437)	(294,746)	0	294,746	(6,258,172)	26,700	215.00	5,740,470	(517,702)	647,681	(10,354)	25,030,451
2038	25,030,451	(166,502)	(255,293)	0	255,293	(5,527,658)	26,700	220.82	5,895,881	368,223	650,792	4,787	26,054,253
2039	26,054,253	(166,502)	(262,205)	0	262,205	(5,406,065)	26,700	226.80	6,055,500	649,435	677,411	8,443	27,389,541
2040	27,389,541	(9,583,699)	(15,500,872)	0	15,500,872	(5,210,386)	26,700	232.94	6,219,440	1,009,054	712,128	13,118	29,123,841
2041	29,123,841	(468,540)	(778,344)	0	778,344	(32,489,066)	13,350	239.24	3,193,909	(29,295,157)	757,220	(585,903)	0
Total		(78,525,663)	(97,834,797)	(718,519)	97,834,797	(120,002,102)	476,277		90,098,579		11,880,830	(703,740)	

Table 10-31

Public Works

Retail Development Charge Calculation

Assumptions		
Total GFA Growth	14,730,349	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$3,208,194	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.65
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	822,992	(408,016)	(408,016)	(9,370)	408,016	(5,610)	736,966	0.65	481,577	466,597	11,110	3,150	1,303,849
2023	1,303,849	(1,235,038)	(1,268,474)	(9,370)	1,268,474	(67,563)	737,005	0.67	494,640	417,708	19,558	3,133	1,744,248
2024	1,744,248	(1,170,040)	(1,234,250)	(9,370)	1,234,250	(222,262)	736,966	0.69	508,005	276,374	29,652	2,349	2,052,623
2025	2,052,623	(187,537)	(203,185)	(9,370)	203,185	(357,622)	736,966	0.71	521,758	154,767	36,947	1,393	2,245,730
2026	2,245,730	(477,686)	(531,555)	(9,370)	531,555	(388,024)	725,783	0.73	527,752	130,358	41,546	1,206	2,418,840
2027	2,418,840	(734,707)	(839,693)	(9,370)	839,693	(459,050)	697,281	0.75	520,753	52,334	47,167	510	2,518,851
2028	2,518,851	(80,483)	(94,474)	(9,370)	94,474	(550,709)	697,242	0.77	534,822	(25,256)	50,377	(429)	2,543,543
2029	2,543,543	(393,473)	(474,377)	(8,986)	474,377	(569,146)	697,281	0.79	549,332	(28,800)	53,414	(504)	2,567,653
2030	2,567,653	(553,092)	(684,869)	(5,894)	684,869	(632,924)	697,242	0.81	564,173	(74,646)	60,340	(1,400)	2,551,948
2031	2,551,948	(587,421)	(747,069)	(5,353)	747,069	(721,557)	735,504	0.83	611,244	(115,666)	66,351	(2,313)	2,500,319
2032	2,500,319	(103,593)	(135,314)	0	135,314	(799,213)	775,604	0.85	662,019	(137,194)	65,008	(2,744)	2,425,389
2033	2,425,389	(1,127,176)	(1,512,187)	0	1,512,187	(782,096)	775,604	0.88	679,942	(102,154)	63,060	(2,043)	2,384,252
2034	2,384,252	(82,599)	(113,813)	0	113,813	(792,739)	775,604	0.90	698,350	(94,389)	61,991	(1,888)	2,349,966
2035	2,349,966	(505,596)	(715,517)	0	715,517	(683,963)	775,604	0.92	717,256	33,293	61,099	433	2,444,791
2036	2,444,791	(468,647)	(681,183)	0	681,183	(744,342)	800,261	0.95	760,095	15,752	63,565	205	2,524,313
2037	2,524,313	(23,582)	(35,204)	0	35,204	(747,475)	806,907	0.98	787,155	39,680	65,632	516	2,630,140
2038	2,630,140	(19,887)	(30,492)	0	30,492	(660,223)	806,945	1.00	808,504	148,282	68,384	1,928	2,848,733
2039	2,848,733	(19,887)	(31,318)	0	31,318	(645,700)	806,907	1.03	830,353	184,654	74,067	2,400	3,109,854
2040	3,109,854	(1,144,676)	(1,851,422)	0	1,851,422	(622,328)	806,945	1.06	852,874	230,546	80,856	2,997	3,424,254
2041	3,424,254	(55,962)	(92,965)	0	92,965	(3,880,490)	401,733	1.09	436,094	(3,444,397)	89,031	(68,888)	0
Total		(9,379,096)	(11,685,377)	(85,820)	11,685,377	(14,333,038)	14,730,349		12,546,700		1,109,155	(59,990)	

Table 10-32

Public Works
Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Total GFA Growth	79,831,360	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$5,744,621	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.16
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	5,891,254	(730,596)	(730,596)	(16,777)	730,596	(10,046)	4,021,383	0.16	657,957	631,134	79,532	4,260	6,606,180
2023	6,606,180	(2,211,470)	(2,271,341)	(16,777)	2,271,341	(120,978)	4,021,383	0.17	675,770	538,015	99,093	4,035	7,247,323
2024	7,247,323	(2,095,084)	(2,210,059)	(16,777)	2,210,059	(397,984)	4,021,383	0.17	694,065	279,303	123,204	2,374	7,652,205
2025	7,652,205	(335,806)	(363,825)	(16,777)	363,825	(640,360)	4,021,383	0.18	712,855	55,718	137,740	501	7,846,164
2026	7,846,164	(855,349)	(951,806)	(16,777)	951,806	(694,799)	3,963,103	0.18	721,543	9,967	145,154	92	8,001,377
2027	8,001,377	(1,315,572)	(1,503,561)	(16,777)	1,503,561	(821,979)	3,827,293	0.19	715,682	(123,074)	156,027	(2,061)	8,032,268
2028	8,032,268	(144,114)	(169,166)	(16,777)	169,166	(986,104)	3,827,293	0.19	735,058	(267,824)	160,645	(4,553)	7,920,536
2029	7,920,536	(704,556)	(849,424)	(16,090)	849,424	(1,019,118)	3,827,293	0.20	754,958	(280,250)	166,331	(4,904)	7,801,713
2030	7,801,713	(990,371)	(1,226,332)	(10,554)	1,226,332	(1,133,319)	3,827,293	0.20	775,397	(368,477)	183,340	(6,909)	7,609,668
2031	7,609,668	(1,051,841)	(1,337,708)	(9,585)	1,337,708	(1,292,027)	4,037,794	0.21	840,190	(461,421)	197,851	(9,228)	7,336,869
2032	7,336,869	(185,494)	(242,294)	0	242,294	(1,431,078)	4,161,884	0.21	889,457	(541,621)	190,759	(10,832)	6,975,174
2033	6,975,174	(2,018,331)	(2,707,736)	0	2,707,736	(1,400,428)	4,161,884	0.22	913,537	(486,891)	181,355	(9,738)	6,659,899
2034	6,659,899	(147,903)	(203,794)	0	203,794	(1,419,486)	4,161,884	0.23	938,269	(481,217)	173,157	(9,624)	6,342,215
2035	6,342,215	(905,324)	(1,281,211)	0	1,281,211	(1,224,711)	4,161,884	0.23	963,671	(261,040)	164,898	(5,221)	6,240,852
2036	6,240,852	(839,164)	(1,219,732)	0	1,219,732	(1,332,826)	4,293,709	0.24	1,021,110	(311,715)	162,262	(6,234)	6,085,164
2037	6,085,164	(42,226)	(63,037)	0	63,037	(1,338,436)	4,334,163	0.24	1,058,636	(279,800)	158,214	(5,596)	5,957,982
2038	5,957,982	(35,610)	(54,600)	0	54,600	(1,182,201)	4,334,163	0.25	1,087,296	(94,905)	154,908	(1,898)	6,016,087
2039	6,016,087	(35,610)	(56,078)	0	56,078	(1,156,196)	4,334,163	0.26	1,116,732	(39,464)	156,418	(789)	6,132,252
2040	6,132,252	(2,049,667)	(3,315,173)	0	3,315,173	(1,114,346)	4,334,163	0.26	1,146,965	32,620	159,439	424	6,324,734
2041	6,324,734	(100,207)	(166,464)	0	166,464	(6,948,441)	2,157,860	0.27	586,502	(6,361,938)	164,443	(127,239)	0
Total		(16,794,293)	(20,923,940)	(153,670)	20,923,940	(25,664,864)	79,831,360		17,005,651		3,114,770	(193,141)	

Table 10-33

Public Works
Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	1,554,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$59,504	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.10
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	37,858	(7,568)	(7,568)	(174)	7,568	(104)	72,000	0.10	7,275	6,997	511	47	45,414
2023	45,414	(22,907)	(23,527)	(174)	23,527	(1,253)	72,000	0.10	7,472	6,045	681	45	52,185
2024	52,185	(21,701)	(22,892)	(174)	22,892	(4,122)	72,000	0.11	7,674	3,378	887	29	56,479
2025	56,479	(3,478)	(3,769)	(174)	3,769	(6,633)	72,000	0.11	7,882	1,075	1,017	10	58,580
2026	58,580	(8,860)	(9,859)	(174)	9,859	(7,197)	74,000	0.11	8,320	949	1,084	9	60,622
2027	60,622	(13,627)	(15,574)	(174)	15,574	(8,514)	74,000	0.12	8,545	(143)	1,182	(2)	61,659
2028	61,659	(1,493)	(1,752)	(174)	1,752	(10,214)	74,000	0.12	8,777	(1,612)	1,233	(27)	61,253
2029	61,253	(7,298)	(8,799)	(167)	8,799	(10,556)	74,000	0.12	9,014	(1,709)	1,286	(30)	60,800
2030	60,800	(10,259)	(12,703)	(109)	12,703	(11,739)	74,000	0.13	9,258	(2,590)	1,429	(49)	59,590
2031	59,590	(10,895)	(13,856)	(99)	13,856	(13,383)	78,000	0.13	10,023	(3,460)	1,549	(69)	57,611
2032	57,611	(1,921)	(2,510)	0	2,510	(14,824)	84,000	0.13	11,086	(3,737)	1,498	(75)	55,297
2033	55,297	(20,906)	(28,047)	0	28,047	(14,506)	84,000	0.14	11,386	(3,120)	1,438	(62)	53,552
2034	53,552	(1,532)	(2,111)	0	2,111	(14,703)	84,000	0.14	11,694	(3,009)	1,392	(60)	51,875
2035	51,875	(9,378)	(13,271)	0	13,271	(12,686)	84,000	0.14	12,011	(675)	1,349	(13)	52,536
2036	52,536	(8,692)	(12,634)	0	12,634	(13,806)	86,000	0.15	12,630	(1,176)	1,366	(24)	52,702
2037	52,702	(437)	(653)	0	653	(13,864)	88,000	0.15	13,274	(590)	1,370	(12)	53,471
2038	53,471	(369)	(566)	0	566	(12,246)	88,000	0.15	13,633	1,387	1,390	18	56,266
2039	56,266	(369)	(581)	0	581	(11,976)	88,000	0.16	14,002	2,026	1,463	26	59,781
2040	59,781	(21,231)	(34,340)	0	34,340	(11,543)	88,000	0.16	14,381	2,838	1,554	37	64,211
2041	64,211	(1,038)	(1,724)	0	1,724	(71,974)	44,000	0.17	7,385	(64,589)	1,669	(1,292)	(0)
Total		(173,960)	(216,736)	(1,592)	216,736	(265,844)	1,554,000		205,722		25,349	(1,494)	

Table 10-34

Housing Services
Residential Development Charge Calculation

Assumptions		
Total GFA Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$47,606,450	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$422.08
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	6,240,298	(21,157,877)	(21,157,877)	(713,348)	21,157,877	(290,921)	20,326	422.08	8,579,266	7,574,998	84,244	51,131	13,950,672
2023	13,950,672	(16,794,093)	(17,248,758)	(713,348)	17,248,758	(2,799,831)	20,326	433.51	8,811,532	5,298,354	209,260	39,738	19,498,023
2024	19,498,023	(13,599,670)	(14,346,003)	(713,348)	14,346,003	(4,865,661)	20,326	445.25	9,050,086	3,471,078	331,466	29,504	23,330,072
2025	23,330,072	(15,319,500)	(16,597,720)	(713,348)	16,597,720	(6,666,756)	20,326	457.30	9,295,098	1,914,995	419,941	17,235	25,682,243
2026	25,682,243	(9,317,000)	(10,367,671)	(735,481)	10,367,671	(8,613,144)	21,883	469.68	10,278,038	929,413	475,121	8,597	27,095,374
2027	27,095,374	(8,116,500)	(9,276,308)	(944,436)	9,276,308	(9,879,520)	23,439	482.40	11,306,904	482,948	528,360	4,709	28,111,390
2028	28,111,390	(13,090,000)	(15,365,522)	(944,436)	15,365,522	(11,135,569)	23,439	495.46	11,613,015	(466,990)	562,228	(7,939)	28,198,690
2029	28,198,690	(11,803,750)	(14,230,788)	(944,436)	14,230,788	(13,033,139)	23,439	508.87	11,927,413	(2,050,161)	592,172	(35,878)	26,704,823
2030	26,704,823	(7,516,250)	(9,307,037)	(914,310)	9,307,037	(14,735,675)	23,439	522.65	12,250,323	(3,399,663)	627,563	(63,744)	23,868,980
2031	23,868,980	(7,173,250)	(9,122,785)	(545,426)	9,122,785	(15,919,568)	25,131	536.80	13,490,235	(2,974,759)	620,593	(59,495)	21,455,319
2032	21,455,319	(5,303,900)	(6,928,004)	(545,426)	6,928,004	(16,750,961)	26,823	551.33	14,788,304	(2,508,084)	557,838	(50,162)	19,454,912
2033	19,454,912	(3,160,150)	(4,239,569)	(545,426)	4,239,569	(15,073,923)	26,823	566.26	15,188,666	(430,683)	505,828	(8,614)	19,521,443
2034	19,521,443	(6,487,250)	(8,938,733)	(545,426)	8,938,733	(13,644,041)	26,823	581.59	15,599,868	1,410,401	507,558	18,335	21,457,737
2035	21,457,737	(8,288,000)	(11,729,145)	(545,426)	11,729,145	(13,041,436)	26,823	597.33	16,022,201	2,435,340	557,901	31,659	24,482,637
2036	24,482,637	(10,620,400)	(15,436,853)	(450,705)	15,436,853	(12,668,595)	26,761	613.50	16,417,932	3,298,632	636,549	42,882	28,460,700
2037	28,460,700	(10,620,400)	(15,854,773)	0	15,854,773	(13,383,946)	26,700	630.11	16,823,977	3,440,031	739,978	44,720	32,685,430
2038	32,685,430	(7,293,300)	(11,182,644)	0	11,182,644	(14,061,247)	26,700	647.17	17,279,451	3,218,203	849,821	41,837	36,795,291
2039	36,795,291	(5,492,550)	(8,649,594)	0	8,649,594	(13,542,548)	26,700	664.69	17,747,256	4,204,708	956,678	54,661	42,011,337
2040	42,011,337	(56,000)	(90,576)	0	90,576	(12,774,551)	26,700	682.69	18,227,726	5,453,175	1,092,295	70,891	48,627,699
2041	48,627,699	(28,000)	(46,514)	0	46,514	(58,274,346)	13,350	701.17	9,360,602	(48,913,744)	1,264,320	(978,276)	0
Total		(181,237,840)	(220,116,873)	(10,514,323)	220,116,873	(271,155,376)	476,277		264,057,891		12,119,715	(748,206)	

Table 10-35

Growth Studies

Residential Development Charge Calculation

Assumptions		
Total GFA Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$10,309,310	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$45.86
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	4,921,919	(1,550,584)	(1,550,584)	0	1,550,584	(21,321)	20,326	45.86	932,126	910,806	66,446	6,148	5,905,319
2023	5,905,319	(1,062,387)	(1,091,149)	0	1,091,149	(202,682)	20,326	47.10	957,362	754,680	88,580	5,660	6,754,239
2024	6,754,239	(1,069,266)	(1,127,946)	0	1,127,946	(336,782)	20,326	48.38	983,280	646,499	114,822	5,495	7,521,055
2025	7,521,055	(1,076,296)	(1,166,099)	0	1,166,099	(476,170)	20,326	49.69	1,009,901	533,731	135,379	4,804	8,194,968
2026	8,194,968	(1,601,500)	(1,782,100)	0	1,782,100	(630,039)	21,883	51.03	1,116,696	486,657	151,607	4,502	8,837,734
2027	8,837,734	(1,739,876)	(1,988,495)	0	1,988,495	(854,316)	23,439	52.41	1,228,481	374,165	172,336	3,648	9,387,883
2028	9,387,883	(1,541,465)	(1,809,429)	0	1,809,429	(1,098,331)	23,439	53.83	1,261,739	163,408	187,758	1,634	9,740,682
2029	9,740,682	(1,549,131)	(1,867,657)	0	1,867,657	(1,325,145)	23,439	55.29	1,295,898	(29,247)	204,554	(512)	9,915,478
2030	9,915,478	(711,806)	(881,397)	0	881,397	(1,542,211)	23,439	56.78	1,330,982	(211,228)	233,014	(3,961)	9,933,303
2031	9,933,303	(719,811)	(915,440)	0	915,440	(1,655,358)	25,131	58.32	1,465,697	(189,661)	258,266	(3,793)	9,998,115
2032	9,998,115	(859,025)	(1,122,067)	0	1,122,067	(1,755,195)	26,823	59.90	1,606,730	(148,464)	259,951	(2,969)	10,106,632
2033	10,106,632	(736,349)	(987,866)	0	987,866	(1,714,589)	26,823	61.52	1,650,229	(64,360)	262,772	(1,287)	10,303,758
2034	10,303,758	(1,590,050)	(2,190,917)	0	2,190,917	(1,730,834)	26,823	63.19	1,694,906	(35,928)	267,898	(719)	10,535,010
2035	10,535,010	(1,598,778)	(2,262,585)	0	2,262,585	(1,872,955)	26,823	64.90	1,740,792	(132,163)	273,910	(2,643)	10,674,114
2036	10,674,114	(1,607,698)	(2,336,805)	0	2,336,805	(2,009,807)	26,761	66.66	1,783,788	(226,019)	277,527	(4,520)	10,721,101
2037	10,721,101	(1,747,848)	(2,609,292)	0	2,609,292	(2,089,705)	26,700	68.46	1,827,904	(261,801)	278,749	(5,236)	10,732,812
2038	10,732,812	(780,969)	(1,197,442)	0	1,197,442	(2,151,011)	26,700	70.31	1,877,390	(273,620)	279,053	(5,472)	10,732,773
2039	10,732,773	(790,488)	(1,244,849)	0	1,244,849	(2,078,220)	26,700	72.22	1,928,217	(150,003)	279,052	(3,000)	10,858,821
2040	10,858,821	(800,214)	(1,294,283)	0	1,294,283	(2,021,278)	26,700	74.17	1,980,419	(40,859)	282,329	(817)	11,099,474
2041	11,099,474	(810,154)	(1,345,835)	0	1,345,835	(12,181,783)	13,350	76.18	1,017,018	(11,164,765)	288,586	(223,295)	0
Total		(23,943,695)	(30,772,237)	0	30,772,237	(37,747,728)	476,277		28,689,555		4,362,589	(226,335)	

Table 10-36

Growth Studies

Retail Development Charge Calculation

Assumptions		
Total GFA Growth	14,730,349	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$741,508	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.13
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	6,245	(111,527)	(111,527)	0	111,527	(1,534)	736,966	0.13	95,203	93,669	84	632	100,631
2023	100,631	(76,413)	(78,482)	0	78,482	(14,578)	737,005	0.13	97,785	83,207	1,509	624	185,972
2024	185,972	(76,908)	(81,129)	0	81,129	(24,223)	736,966	0.14	100,427	76,204	3,162	648	265,985
2025	265,985	(77,414)	(83,873)	0	83,873	(34,249)	736,966	0.14	103,146	68,897	4,788	620	340,290
2026	340,290	(115,190)	(128,179)	0	128,179	(45,316)	725,783	0.14	104,331	59,015	6,295	546	406,145
2027	406,145	(125,142)	(143,025)	0	143,025	(61,448)	697,281	0.15	102,947	41,500	7,920	405	455,970
2028	455,970	(110,871)	(130,145)	0	130,145	(78,999)	697,242	0.15	105,729	26,730	9,119	267	492,087
2029	492,087	(111,423)	(134,333)	0	134,333	(95,312)	697,281	0.16	108,597	13,285	10,334	139	515,844
2030	515,844	(51,197)	(63,395)	0	63,395	(110,925)	697,242	0.16	111,531	606	12,122	7	528,580
2031	528,580	(51,773)	(65,844)	0	65,844	(119,063)	735,504	0.16	120,836	1,773	13,743	23	544,119
2032	544,119	(61,786)	(80,706)	0	80,706	(126,244)	775,604	0.17	130,874	4,630	14,147	60	562,956
2033	562,956	(52,963)	(71,053)	0	71,053	(123,324)	775,604	0.17	134,417	11,094	14,637	144	588,831
2034	588,831	(114,366)	(157,584)	0	157,584	(124,492)	775,604	0.18	138,056	13,564	15,310	176	617,881
2035	617,881	(114,994)	(162,739)	0	162,739	(134,714)	775,604	0.18	141,794	7,080	16,065	92	641,118
2036	641,118	(115,635)	(168,077)	0	168,077	(144,557)	800,261	0.19	150,263	5,705	16,669	74	663,566
2037	663,566	(125,716)	(187,676)	0	187,676	(150,304)	806,907	0.19	155,612	5,308	17,253	69	686,196
2038	686,196	(56,172)	(86,127)	0	86,127	(154,714)	806,945	0.20	159,833	5,119	17,841	67	709,223
2039	709,223	(56,857)	(89,537)	0	89,537	(149,478)	806,907	0.20	164,152	14,674	18,440	191	742,527
2040	742,527	(57,556)	(93,093)	0	93,093	(145,383)	806,945	0.21	168,604	23,222	19,306	302	785,357
2041	785,357	(58,271)	(96,801)	0	96,801	(876,187)	401,733	0.21	86,211	(789,976)	20,419	(15,800)	0
Total		(1,722,175)	(2,213,325)	0	2,213,325	(2,715,044)	14,730,349		2,480,349		239,163	(10,713)	

Table 10-37

Growth Studies

Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Total GFA Growth	79,831,360	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$2,700,734	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.087160
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(4,988)	(406,207)	(406,207)	0	406,207	(5,585)	4,021,383	0.09	350,503	344,917	(137)	2,328	342,120
2023	342,120	(278,314)	(285,849)	0	285,849	(53,097)	4,021,383	0.09	359,992	306,895	5,132	2,302	656,449
2024	656,449	(280,116)	(295,488)	0	295,488	(88,227)	4,021,383	0.09	369,738	281,511	11,160	2,393	951,513
2025	951,513	(281,958)	(305,483)	0	305,483	(124,742)	4,021,383	0.09	379,748	255,005	17,127	2,295	1,225,941
2026	1,225,941	(419,546)	(466,858)	0	466,858	(165,052)	3,963,103	0.10	384,376	219,325	22,680	2,029	1,469,974
2027	1,469,974	(455,796)	(520,927)	0	520,927	(223,805)	3,827,293	0.10	381,254	157,448	28,664	1,535	1,657,622
2028	1,657,622	(403,818)	(474,017)	0	474,017	(287,730)	3,827,293	0.10	391,575	103,845	33,152	1,038	1,795,658
2029	1,795,658	(405,826)	(489,271)	0	489,271	(347,149)	3,827,293	0.11	402,176	55,028	37,709	578	1,888,972
2030	1,888,972	(186,472)	(230,900)	0	230,900	(404,014)	3,827,293	0.11	413,065	9,051	44,391	106	1,942,520
2031	1,942,520	(188,569)	(239,818)	0	239,818	(433,655)	4,037,794	0.11	447,581	13,926	50,506	181	2,007,133
2032	2,007,133	(225,039)	(293,948)	0	293,948	(459,809)	4,161,884	0.11	473,826	14,017	52,185	182	2,073,517
2033	2,073,517	(192,902)	(258,792)	0	258,792	(449,172)	4,161,884	0.12	486,654	37,482	53,911	487	2,165,398
2034	2,165,398	(416,546)	(573,956)	0	573,956	(453,427)	4,161,884	0.12	499,829	46,402	56,300	603	2,268,703
2035	2,268,703	(418,833)	(592,730)	0	592,730	(490,659)	4,161,884	0.12	513,361	22,702	58,986	295	2,350,687
2036	2,350,687	(421,169)	(612,174)	0	612,174	(526,510)	4,293,709	0.13	543,959	17,449	61,118	227	2,429,481
2037	2,429,481	(457,884)	(683,557)	0	683,557	(547,441)	4,334,163	0.13	563,950	16,509	63,167	215	2,509,371
2038	2,509,371	(204,591)	(313,694)	0	313,694	(563,501)	4,334,163	0.13	579,217	15,716	65,244	204	2,590,535
2039	2,590,535	(207,084)	(326,114)	0	326,114	(544,432)	4,334,163	0.14	594,899	50,466	67,354	656	2,709,011
2040	2,709,011	(209,632)	(339,064)	0	339,064	(529,515)	4,334,163	0.14	611,004	81,489	70,434	1,059	2,861,994
2041	2,861,994	(212,236)	(352,569)	0	352,569	(3,191,267)	2,157,860	0.14	312,438	(2,878,829)	74,412	(57,577)	0
Total		(6,272,540)	(8,061,416)	0	8,061,416	(9,888,788)	79,831,360		9,059,143		873,495	(38,862)	

Table 10-38

Growth Studies

Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	1,554,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$16,793	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.03
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	0	(2,526)	(2,526)	0	2,526	(35)	72,000	0.03	2,001	1,966	0	13	1,980
2023	1,980	(1,731)	(1,777)	0	1,777	(330)	72,000	0.03	2,055	1,725	30	13	3,747
2024	3,747	(1,742)	(1,837)	0	1,837	(549)	72,000	0.03	2,111	1,562	64	13	5,387
2025	5,387	(1,753)	(1,899)	0	1,899	(776)	72,000	0.03	2,168	1,392	97	13	6,889
2026	6,889	(2,609)	(2,903)	0	2,903	(1,026)	74,000	0.03	2,289	1,262	127	12	8,290
2027	8,290	(2,834)	(3,239)	0	3,239	(1,392)	74,000	0.03	2,351	959	162	9	9,420
2028	9,420	(2,511)	(2,947)	0	2,947	(1,789)	74,000	0.03	2,414	625	188	6	10,240
2029	10,240	(2,523)	(3,042)	0	3,042	(2,159)	74,000	0.03	2,480	321	215	3	10,779
2030	10,779	(1,159)	(1,436)	0	1,436	(2,512)	74,000	0.03	2,547	35	253	0	11,067
2031	11,067	(1,172)	(1,491)	0	1,491	(2,696)	78,000	0.04	2,757	61	288	1	11,416
2032	11,416	(1,399)	(1,828)	0	1,828	(2,859)	84,000	0.04	3,049	190	297	2	11,906
2033	11,906	(1,199)	(1,609)	0	1,609	(2,793)	84,000	0.04	3,132	339	310	4	12,559
2034	12,559	(2,590)	(3,569)	0	3,569	(2,819)	84,000	0.04	3,217	397	327	5	13,288
2035	13,288	(2,604)	(3,685)	0	3,685	(3,051)	84,000	0.04	3,304	253	346	3	13,890
2036	13,890	(2,619)	(3,806)	0	3,806	(3,274)	86,000	0.04	3,474	200	361	3	14,454
2037	14,454	(2,847)	(4,250)	0	4,250	(3,404)	88,000	0.04	3,651	247	376	3	15,081
2038	15,081	(1,272)	(1,950)	0	1,950	(3,504)	88,000	0.04	3,750	246	392	3	15,722
2039	15,722	(1,288)	(2,028)	0	2,028	(3,385)	88,000	0.04	3,852	466	409	6	16,603
2040	16,603	(1,303)	(2,108)	0	2,108	(3,292)	88,000	0.04	3,956	663	432	9	17,707
2041	17,707	(1,320)	(2,192)	0	2,192	(19,843)	44,000	0.05	2,031	(17,811)	460	(356)	0
Total		(39,002)	(50,125)	0	50,125	(61,487)	1,554,000		56,588		5,132	(233)	

Table 10-39

Court Services
Residential Development Charge Calculation

Assumptions		
Total GFA Growth	476,277	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$0	
Discount Rate Applied to Post 2041 Debt Payments	1.90%	

Calculated Development Charge per Capita	\$16.86
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(4,168,020)	(57,660)	(57,660)	(443,717)	57,660	(793)	20,326	16.86	342,700	(101,809)	(114,621)	(1,400)	(4,385,850)
2023	(4,385,850)	0	0	(443,717)	0	(6,949)	20,326	17.32	351,978	(98,687)	(127,190)	(1,431)	(4,613,158)
2024	(4,613,158)	0	0	(443,717)	0	(6,949)	20,326	17.79	361,507	(89,158)	(143,008)	(1,382)	(4,846,706)
2025	(4,846,706)	0	0	(443,717)	0	(6,949)	20,326	18.27	371,294	(79,371)	(155,095)	(1,270)	(5,082,442)
2026	(5,082,442)	0	0	(443,717)	0	(6,949)	21,883	18.76	410,558	(40,108)	(165,179)	(652)	(5,288,381)
2027	(5,288,381)	0	0	(443,717)	0	(6,949)	23,439	19.27	451,656	991	(177,161)	10	(5,464,541)
2028	(5,464,541)	0	0	(443,717)	0	(6,949)	23,439	19.79	463,883	13,218	(185,794)	132	(5,636,985)
2029	(5,636,985)	0	0	(394,696)	0	(6,949)	23,439	20.33	476,442	74,798	(197,294)	785	(5,758,696)
2030	(5,758,696)	0	0	0	0	(6,949)	23,439	20.88	489,341	482,392	(215,951)	5,668	(5,486,587)
2031	(5,486,587)	0	0	0	0	(6,949)	25,131	21.44	538,869	531,921	(219,463)	6,915	(5,167,215)
2032	(5,167,215)	0	0	0	0	(6,156)	26,823	22.02	590,721	584,565	(206,689)	7,599	(4,781,739)
2033	(4,781,739)	0	0	0	0	0	26,823	22.62	606,713	606,713	(191,270)	7,887	(4,358,408)
2034	(4,358,408)	0	0	0	0	0	26,823	23.23	623,139	623,139	(174,336)	8,101	(3,901,505)
2035	(3,901,505)	0	0	0	0	0	26,823	23.86	640,009	640,009	(156,060)	8,320	(3,409,236)
2036	(3,409,236)	0	0	0	0	0	26,761	24.51	655,817	655,817	(136,369)	8,526	(2,881,263)
2037	(2,881,263)	0	0	0	0	0	26,700	25.17	672,036	672,036	(115,251)	8,736	(2,315,741)
2038	(2,315,741)	0	0	0	0	0	26,700	25.85	690,230	690,230	(92,630)	8,973	(1,709,167)
2039	(1,709,167)	0	0	0	0	0	26,700	26.55	708,917	708,917	(68,367)	9,216	(1,059,402)
2040	(1,059,402)	0	0	0	0	0	26,700	27.27	728,109	728,109	(42,376)	9,465	(364,203)
2041	(364,203)	0	0	0	0	0	13,350	28.01	373,911	373,911	(14,568)	4,861	(0)
Total		(57,660)	(57,660)	(3,500,712)	57,660	(69,486)	476,277		10,547,829		(2,898,671)	89,061	

Table 10-40

Court Services

Retail Development Charge Calculation

Assumptions		
Total GFA Growth	14,730,349	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$0	
Discount Rate Applied to Post 2041 Debt Payments	1.90%	

Calculated Development Charge per sqft	\$0.04
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(299,789)	(4,147)	(4,147)	(31,915)	4,147	(57)	736,966	0.04	28,815	(3,157)	(8,244)	(43)	(311,234)
2023	(311,234)	0	0	(31,915)	0	(500)	737,005	0.04	29,596	(2,818)	(9,026)	(41)	(323,119)
2024	(323,119)	0	0	(31,915)	0	(500)	736,966	0.04	30,396	(2,018)	(10,017)	(31)	(335,185)
2025	(335,185)	0	0	(31,915)	0	(500)	736,966	0.04	31,219	(1,196)	(10,726)	(19)	(347,125)
2026	(347,125)	0	0	(31,915)	0	(500)	725,783	0.04	31,578	(837)	(11,282)	(14)	(359,258)
2027	(359,258)	0	0	(31,915)	0	(500)	697,281	0.04	31,159	(1,256)	(12,035)	(21)	(372,569)
2028	(372,569)	0	0	(31,915)	0	(500)	697,242	0.05	32,001	(414)	(12,667)	(7)	(385,658)
2029	(385,658)	0	0	(28,389)	0	(500)	697,281	0.05	32,869	3,980	(13,498)	42	(395,134)
2030	(395,134)	0	0	0	0	(500)	697,242	0.05	33,757	33,257	(14,818)	391	(376,303)
2031	(376,303)	0	0	0	0	(500)	735,504	0.05	36,573	36,074	(15,052)	469	(354,813)
2032	(354,813)	0	0	0	0	(443)	775,604	0.05	39,611	39,169	(14,193)	509	(329,328)
2033	(329,328)	0	0	0	0	0	775,604	0.05	40,684	40,684	(13,173)	529	(301,288)
2034	(301,288)	0	0	0	0	0	775,604	0.05	41,785	41,785	(12,052)	543	(271,011)
2035	(271,011)	0	0	0	0	0	775,604	0.06	42,917	42,917	(10,840)	558	(238,377)
2036	(238,377)	0	0	0	0	0	800,261	0.06	45,480	45,480	(9,535)	591	(201,841)
2037	(201,841)	0	0	0	0	0	806,907	0.06	47,099	47,099	(8,074)	612	(162,204)
2038	(162,204)	0	0	0	0	0	806,945	0.06	48,376	48,376	(6,488)	629	(119,687)
2039	(119,687)	0	0	0	0	0	806,907	0.06	49,684	49,684	(4,787)	646	(74,145)
2040	(74,145)	0	0	0	0	0	806,945	0.06	51,031	51,031	(2,966)	663	(25,416)
2041	(25,416)	0	0	0	0	0	401,733	0.06	26,093	26,093	(1,017)	339	0
Total		(4,147)	(4,147)	(251,792)	4,147	(4,998)	14,730,349		750,723		(200,489)	6,345	

Table 10-41

Court Services

Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Total GFA Growth	79,831,360	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$0	
Discount Rate Applied to Post 2041 Debt Payments	1.90%	

Calculated Development Charge per sqft	\$0.03
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(1,076,358)	(15,105)	(15,105)	(116,241)	15,105	(208)	4,021,383	0.03	105,620	(10,828)	(29,600)	(149)	(1,116,935)
2023	(1,116,935)	0	0	(116,241)	0	(1,820)	4,021,383	0.03	108,479	(9,582)	(32,391)	(139)	(1,159,047)
2024	(1,159,047)	0	0	(116,241)	0	(1,820)	4,021,383	0.03	111,416	(6,645)	(35,930)	(103)	(1,201,725)
2025	(1,201,725)	0	0	(116,241)	0	(1,820)	4,021,383	0.03	114,432	(3,628)	(38,455)	(58)	(1,243,867)
2026	(1,243,867)	0	0	(116,241)	0	(1,820)	3,963,103	0.03	115,827	(2,234)	(40,426)	(36)	(1,286,563)
2027	(1,286,563)	0	0	(116,241)	0	(1,820)	3,827,293	0.03	114,886	(3,175)	(43,100)	(53)	(1,332,890)
2028	(1,332,890)	0	0	(116,241)	0	(1,820)	3,827,293	0.03	117,997	(64)	(45,318)	(1)	(1,378,274)
2029	(1,378,274)	0	0	(103,399)	0	(1,820)	3,827,293	0.03	121,191	15,972	(48,240)	168	(1,410,374)
2030	(1,410,374)	0	0	0	0	(1,820)	3,827,293	0.03	124,472	122,652	(52,889)	1,441	(1,339,170)
2031	(1,339,170)	0	0	0	0	(1,820)	4,037,794	0.03	134,873	133,053	(53,567)	1,730	(1,257,954)
2032	(1,257,954)	0	0	0	0	(1,613)	4,161,884	0.03	142,782	141,169	(50,318)	1,835	(1,165,268)
2033	(1,165,268)	0	0	0	0	0	4,161,884	0.04	146,647	146,647	(46,611)	1,906	(1,063,325)
2034	(1,063,325)	0	0	0	0	0	4,161,884	0.04	150,617	150,617	(42,533)	1,958	(953,283)
2035	(953,283)	0	0	0	0	0	4,161,884	0.04	154,695	154,695	(38,131)	2,011	(834,708)
2036	(834,708)	0	0	0	0	0	4,293,709	0.04	163,916	163,916	(33,388)	2,131	(702,049)
2037	(702,049)	0	0	0	0	0	4,334,163	0.04	169,940	169,940	(28,082)	2,209	(557,983)
2038	(557,983)	0	0	0	0	0	4,334,163	0.04	174,540	174,540	(22,319)	2,269	(403,493)
2039	(403,493)	0	0	0	0	0	4,334,163	0.04	179,266	179,266	(16,140)	2,330	(238,036)
2040	(238,036)	0	0	0	0	0	4,334,163	0.04	184,119	184,119	(9,521)	2,394	(61,045)
2041	(61,045)	0	0	0	0	0	2,157,860	0.04	94,149	94,149	(2,442)	1,224	31,886
Total		(15,105)	(15,105)	(917,083)	15,105	(18,203)	79,831,360		2,729,865		(709,402)	23,067	

Table 10-42

Court Services

Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	1,554,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2041	\$0	
Discount Rate Applied to Post 2041 Debt Payments	2.60%	

Calculated Development Charge per sqft	\$0.01
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2022	(6,789)	(94)	(94)	(723)	94	(1)	72,000	0.01	606	(119)	(187)	(2)	(7,096)
2023	(7,096)	0	0	(723)	0	(11)	72,000	0.01	622	(112)	(206)	(2)	(7,416)
2024	(7,416)	0	0	(723)	0	(11)	72,000	0.01	639	(95)	(230)	(1)	(7,742)
2025	(7,742)	0	0	(723)	0	(11)	72,000	0.01	656	(78)	(248)	(1)	(8,070)
2026	(8,070)	0	0	(723)	0	(11)	74,000	0.01	692	(42)	(262)	(1)	(8,374)
2027	(8,374)	0	0	(723)	0	(11)	74,000	0.01	711	(23)	(281)	(0)	(8,678)
2028	(8,678)	0	0	(723)	0	(11)	74,000	0.01	731	(4)	(295)	(0)	(8,976)
2029	(8,976)	0	0	(643)	0	(11)	74,000	0.01	750	96	(314)	1	(9,194)
2030	(9,194)	0	0	0	0	(11)	74,000	0.01	771	759	(345)	9	(8,770)
2031	(8,770)	0	0	0	0	(11)	78,000	0.01	834	823	(351)	11	(8,287)
2032	(8,287)	0	0	0	0	(10)	84,000	0.01	923	913	(331)	12	(7,694)
2033	(7,694)	0	0	0	0	0	84,000	0.01	948	948	(308)	12	(7,042)
2034	(7,042)	0	0	0	0	0	84,000	0.01	973	973	(282)	13	(6,338)
2035	(6,338)	0	0	0	0	0	84,000	0.01	1,000	1,000	(254)	13	(5,578)
2036	(5,578)	0	0	0	0	0	86,000	0.01	1,051	1,051	(223)	14	(4,737)
2037	(4,737)	0	0	0	0	0	88,000	0.01	1,105	1,105	(189)	14	(3,807)
2038	(3,807)	0	0	0	0	0	88,000	0.01	1,135	1,135	(152)	15	(2,810)
2039	(2,810)	0	0	0	0	0	88,000	0.01	1,165	1,165	(112)	15	(1,742)
2040	(1,742)	0	0	0	0	0	88,000	0.01	1,197	1,197	(70)	16	(599)
2041	(599)	0	0	0	0	0	44,000	0.01	615	615	(24)	8	0
Total		(94)	(94)	(5,702)	94	(113)	1,554,000		17,123		(4,663)	145	

Table 10-43

**Ambulance Services
Residential Development Charge Calculation**

Assumptions		
Total GFA Growth	222,074	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$15,661,813	
Discount Rate Applied to Post 2031 Debt Payments	2.57%	

Calculated Development Charge per Capita	\$201.48
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	(1,192,256)	(8,191,735)	(8,191,735)	(1,046,493)	8,191,735	(112,636)	20,326	201.48	4,095,184	2,936,054	(32,787)	19,818	1,730,830
2023	1,730,830	(6,097,095)	(6,262,161)	(1,046,493)	6,262,161	(1,077,983)	20,326	206.93	4,206,053	2,081,577	25,962	15,612	3,853,981
2024	3,853,981	(7,792,917)	(8,220,582)	(1,046,493)	8,220,582	(1,874,672)	20,326	212.53	4,319,923	1,398,757	65,518	11,889	5,330,145
2025	5,330,145	(1,566,323)	(1,697,013)	(1,046,493)	1,697,013	(2,781,719)	20,326	218.29	4,436,876	608,664	95,943	5,478	6,040,229
2026	6,040,229	(484,482)	(539,117)	(1,050,738)	539,117	(2,972,260)	21,883	224.20	4,906,067	883,069	111,744	8,168	7,043,211
2027	7,043,211	(254,413)	(290,768)	(1,093,839)	290,768	(3,034,902)	23,439	230.26	5,397,181	1,268,440	137,343	12,367	8,461,361
2028	8,461,361	(348,056)	(408,561)	(1,128,341)	408,561	(3,073,031)	23,439	236.50	5,543,298	1,341,926	169,227	13,419	9,985,933
2029	9,985,933	(1,731,875)	(2,087,975)	(1,128,341)	2,087,975	(3,153,404)	23,439	242.90	5,693,372	1,411,626	209,705	14,822	11,622,087
2030	11,622,087	(1,201,792)	(1,488,126)	(1,104,964)	1,488,126	(3,405,502)	23,439	249.48	5,847,508	1,337,041	273,119	15,710	13,247,957
2031	13,247,957	(1,274,816)	(1,621,284)	(4,524,881)	1,621,284	(15,240,366)	25,131	256.23	6,439,361	(13,325,886)	344,447	(266,518)	(0)
Total		(28,943,504)	(30,807,322)	(14,217,079)	30,807,322	(36,726,474)	222,074		50,884,822		1,400,220	(149,233)	

Table 10-44

Ambulance Services

Retail Development Charge Calculation

Assumptions		
Total GFA Growth	7,198,237	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$393,534	
Discount Rate Applied to Post 2031 Debt Payments	2.58%	

Calculated Development Charge per Capita	\$0.16
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	(29,958)	(205,834)	(205,834)	(26,295)	205,834	(2,830)	736,966	0.16	115,329	86,203	(824)	582	56,003
2023	56,003	(153,202)	(157,349)	(26,295)	157,349	(27,086)	737,005	0.16	118,457	65,075	840	488	122,407
2024	122,407	(195,813)	(206,559)	(26,295)	206,559	(47,105)	736,966	0.17	121,658	48,258	2,081	410	173,156
2025	173,156	(39,357)	(42,641)	(26,295)	42,641	(69,896)	736,966	0.17	124,951	28,760	3,117	259	205,291
2026	205,291	(12,174)	(13,546)	(26,402)	13,546	(74,684)	725,783	0.17	126,387	25,301	3,798	234	234,624
2027	234,624	(6,393)	(7,306)	(27,485)	7,306	(76,258)	697,281	0.18	124,711	20,968	4,575	204	260,371
2028	260,371	(8,746)	(10,266)	(28,352)	10,266	(77,216)	697,242	0.18	128,080	22,512	5,207	225	288,316
2029	288,316	(43,517)	(52,465)	(28,352)	52,465	(79,236)	697,281	0.19	131,555	23,967	6,055	252	318,589
2030	318,589	(30,197)	(37,392)	(27,764)	37,392	(85,570)	697,242	0.19	135,109	21,774	7,487	256	348,106
2031	348,106	(32,032)	(40,738)	(113,665)	40,738	(382,870)	735,504	0.20	146,382	(350,154)	9,051	(7,003)	(0)
Total		(727,264)	(774,096)	(357,201)	774,096	(922,752)	7,198,237		1,272,617		41,387	(4,093)	

Table 10-45

Ambulance Services

Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Total GFA Growth	39,395,602	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$1,432,438	
Discount Rate Applied to Post 2031 Debt Payments	2.58%	

Calculated Development Charge per Capita	\$0.102528
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	(46,886)	(749,220)	(749,220)	(95,713)	749,220	(10,302)	4,021,383	0.10	412,303	306,288	(1,289)	2,067	260,180
2023	260,180	(557,643)	(572,740)	(95,713)	572,740	(98,593)	4,021,383	0.11	423,465	229,159	3,903	1,719	494,961
2024	494,961	(712,744)	(751,859)	(95,713)	751,859	(171,459)	4,021,383	0.11	434,930	167,758	8,414	1,426	672,560
2025	672,560	(143,257)	(155,210)	(95,713)	155,210	(254,417)	4,021,383	0.11	446,704	96,574	12,106	869	782,109
2026	782,109	(44,311)	(49,308)	(96,101)	49,308	(271,844)	3,963,103	0.11	452,149	84,203	14,469	779	881,560
2027	881,560	(23,269)	(26,594)	(100,043)	26,594	(277,574)	3,827,293	0.12	448,476	70,859	17,190	691	970,301
2028	970,301	(31,833)	(37,367)	(103,199)	37,367	(281,061)	3,827,293	0.12	460,617	76,358	19,406	764	1,066,828
2029	1,066,828	(158,398)	(190,967)	(103,199)	190,967	(288,412)	3,827,293	0.12	473,088	81,477	22,403	856	1,171,564
2030	1,171,564	(109,917)	(136,105)	(101,061)	136,105	(311,469)	3,827,293	0.13	485,895	73,366	27,532	862	1,273,323
2031	1,273,323	(116,595)	(148,283)	(413,721)	148,283	(1,393,590)	4,037,794	0.13	526,498	(1,280,813)	33,106	(25,616)	0
Total		(2,647,188)	(2,817,654)	(1,300,175)	2,817,654	(3,358,720)	39,395,602		4,564,125		157,241	(15,584)	

Table 10-46

Ambulance Services

Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	736,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$8,647	
Discount Rate Applied to Post 2031 Debt Payments	2.58%	

Calculated Development Charge per Capita	\$0.03
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	(658)	(4,523)	(4,523)	(578)	4,523	(62)	72,000	0.03	2,419	1,779	(18)	12	1,115
2023	1,115	(3,366)	(3,457)	(578)	3,457	(595)	72,000	0.03	2,485	1,312	17	10	2,454
2024	2,454	(4,303)	(4,539)	(578)	4,539	(1,035)	72,000	0.04	2,552	939	42	8	3,443
2025	3,443	(865)	(937)	(578)	937	(1,536)	72,000	0.04	2,621	508	62	5	4,017
2026	4,017	(267)	(298)	(580)	298	(1,641)	74,000	0.04	2,767	546	74	5	4,642
2027	4,642	(140)	(161)	(604)	161	(1,676)	74,000	0.04	2,842	562	91	5	5,300
2028	5,300	(192)	(226)	(623)	226	(1,697)	74,000	0.04	2,919	599	106	6	6,012
2029	6,012	(956)	(1,153)	(623)	1,153	(1,741)	74,000	0.04	2,998	634	126	7	6,778
2030	6,778	(664)	(822)	(610)	822	(1,880)	74,000	0.04	3,079	589	159	7	7,533
2031	7,533	(704)	(895)	(2,498)	895	(8,413)	78,000	0.04	3,333	(7,578)	196	(152)	(0)
Total		(15,980)	(17,009)	(7,849)	17,009	(20,276)	736,000		28,016		855	(87)	

Table 10-47

Public Health
Residential Development Charge Calculation

Assumptions		
Total GFA Growth	222,074	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$22,263,152	
Discount Rate Applied to Post 2031 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$101.69
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	11,616,006	(3,060,188)	(3,060,188)	0	3,060,188	(42,078)	20,326	101.69	2,066,914	2,024,836	156,816	13,668	13,811,326
2023	13,811,326	(3,060,188)	(3,143,036)	0	3,143,036	(414,356)	20,326	104.44	2,122,871	1,708,516	207,170	12,814	15,739,826
2024	15,739,826	(3,060,188)	(3,228,128)	0	3,228,128	(800,305)	20,326	107.27	2,180,344	1,380,039	267,577	11,730	17,399,172
2025	17,399,172	(3,060,188)	(3,315,522)	0	3,315,522	(1,198,877)	20,326	110.17	2,239,372	1,040,495	313,185	9,364	18,762,216
2026	18,762,216	(3,060,188)	(3,405,283)	0	3,405,283	(1,609,365)	21,883	113.16	2,476,181	866,816	347,101	8,018	19,984,152
2027	19,984,152	(3,060,188)	(3,497,474)	0	3,497,474	(2,032,857)	23,439	116.22	2,724,055	691,198	389,691	6,739	21,071,780
2028	21,071,780	(3,060,188)	(3,592,161)	0	3,592,161	(2,469,009)	23,439	119.37	2,797,803	328,794	421,436	3,288	21,825,297
2029	21,825,297	(3,060,188)	(3,689,411)	0	3,689,411	(2,918,969)	23,439	122.60	2,873,548	(45,421)	458,331	(795)	22,237,413
2030	22,237,413	(3,060,188)	(3,789,294)	0	3,789,294	(3,386,168)	23,439	125.92	2,951,343	(434,825)	522,579	(8,153)	22,317,015
2031	22,317,015	(3,060,188)	(3,891,882)	0	3,891,882	(25,698,354)	25,131	129.32	3,250,063	(22,448,291)	580,242	(448,966)	0
Total		(30,601,881)	(34,612,380)	0	34,612,380	(40,570,337)	222,074		25,682,495		3,664,129	(392,292)	

Table 10-48

Public Health
Retail Development Charge Calculation

Assumptions		
Total GFA Growth	7,198,237	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$138,429	
Discount Rate Applied to Post 2031 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$0.02
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	70,318	(19,028)	(19,028)	0	19,028	(262)	736,966	0.02	14,595	14,334	949	97	85,698
2023	85,698	(19,028)	(19,543)	0	19,543	(2,576)	737,005	0.02	14,991	12,415	1,285	93	99,491
2024	99,491	(19,028)	(20,072)	0	20,072	(4,976)	736,966	0.02	15,396	10,420	1,691	89	111,691
2025	111,691	(19,028)	(20,615)	0	20,615	(7,454)	736,966	0.02	15,813	8,359	2,010	75	122,135
2026	122,135	(19,028)	(21,173)	0	21,173	(10,007)	725,783	0.02	15,995	5,988	2,260	55	130,438
2027	130,438	(19,028)	(21,747)	0	21,747	(12,640)	697,281	0.02	15,782	3,143	2,544	31	136,155
2028	136,155	(19,028)	(22,335)	0	22,335	(15,352)	697,242	0.02	16,209	857	2,723	9	139,743
2029	139,743	(19,028)	(22,940)	0	22,940	(18,150)	697,281	0.02	16,649	(1,501)	2,935	(26)	141,150
2030	141,150	(19,028)	(23,561)	0	23,561	(21,055)	697,242	0.02	17,098	(3,956)	3,317	(74)	140,437
2031	140,437	(19,028)	(24,199)	0	24,199	(159,788)	735,504	0.03	18,525	(141,263)	3,651	(2,825)	0
Total		(190,278)	(215,214)	0	215,214	(252,260)	7,198,237		161,053		23,366	(2,477)	

Table 10-49

Public Health

Industrial/Office/Institutional Development Charge Calculation

Assumptions		
Total GFA Growth	39,395,602	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$504,188	
Discount Rate Applied to Post 2031 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$0.01
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	450,618	(69,303)	(69,303)	0	69,303	(953)	4,021,383	0.01	33,881	32,928	6,083	222	489,851
2023	489,851	(69,303)	(71,179)	0	71,179	(9,384)	4,021,383	0.01	34,798	25,414	7,348	191	522,804
2024	522,804	(69,303)	(73,107)	0	73,107	(18,124)	4,021,383	0.01	35,740	17,616	8,888	150	549,457
2025	549,457	(69,303)	(75,086)	0	75,086	(27,151)	4,021,383	0.01	36,708	9,557	9,890	86	568,990
2026	568,990	(69,303)	(77,119)	0	77,119	(36,447)	3,963,103	0.01	37,155	708	10,526	7	580,231
2027	580,231	(69,303)	(79,206)	0	79,206	(46,038)	3,827,293	0.01	36,853	(9,184)	11,315	(154)	582,207
2028	582,207	(69,303)	(81,351)	0	81,351	(55,915)	3,827,293	0.01	37,851	(18,064)	11,644	(307)	575,480
2029	575,480	(69,303)	(83,553)	0	83,553	(66,105)	3,827,293	0.01	38,876	(27,230)	12,085	(477)	559,859
2030	559,859	(69,303)	(85,815)	0	85,815	(76,686)	3,827,293	0.01	39,928	(36,758)	13,157	(689)	535,569
2031	535,569	(69,303)	(88,138)	0	88,138	(581,984)	4,037,794	0.01	43,264	(538,719)	13,925	(10,774)	0
Total		(693,033)	(783,857)	0	783,857	(918,785)	39,395,602		375,053		104,861	(11,746)	

Table 10-50

Public Health
Hotel Development Charge Calculation

Assumptions		
Total GFA Growth	736,000	
Inflation	2.71%	
Interest	Earned	Charged
Opening Balance	1.35% - 2.60%	2.75% - 4.00%
In-year Transactions	0.68% - 1.30%	1.38% - 2.00%
New Debt Term (Years)	10	
New Debt interest	From 2.75% to 4.00%	
Target Reserve Balance 2031	\$3,135	
Discount Rate Applied to Post 2031 Debt Payments	2.60%	

Calculated Development Charge per Capita	\$0.01
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Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual GFA Growth (sqft)	Development Charge (Inflated) per sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2022	1,012	(431)	(431)	0	431	(6)	72,000	0.01	370	364	14	2	1,392
2023	1,392	(431)	(443)	0	443	(58)	72,000	0.01	380	322	21	2	1,738
2024	1,738	(431)	(455)	0	455	(113)	72,000	0.01	391	278	30	2	2,047
2025	2,047	(431)	(467)	0	467	(169)	72,000	0.01	401	232	37	2	2,319
2026	2,319	(431)	(480)	0	480	(227)	74,000	0.01	423	197	43	2	2,560
2027	2,560	(431)	(492)	0	492	(286)	74,000	0.01	435	149	50	1	2,760
2028	2,760	(431)	(506)	0	506	(348)	74,000	0.01	447	99	55	1	2,915
2029	2,915	(431)	(520)	0	520	(411)	74,000	0.01	459	48	61	1	3,025
2030	3,025	(431)	(534)	0	534	(477)	74,000	0.01	471	(6)	71	(0)	3,090
2031	3,090	(431)	(548)	0	548	(3,619)	78,000	0.01	510	(3,109)	80	(62)	0
Total		(4,309)	(4,874)	0	4,874	(5,713)	736,000		4,288		462	(48)	

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11 CURRENT DEVELOPMENT CHARGES BYLAW AND POLICIES

11.1 Overview

Development charges are fees levied on new residential and non-residential development in York Region, unless specifically exempted by the Act, section 110 of the Municipal Act, or the Region's Development Charges Bylaw. They are paid, normally as part of the building or occupancy permit issuance or occupancy approval and/or the subdivision/severance agreement process.

York Region's current Region-wide bylaw [2017-35](#) (as amended by bylaw [2018-42](#)) came into effect on June 17, 2017 and will expire on June 16, 2022.

The monies collected under the development charge bylaw are maintained in separate reserve funds for each of the services involved. Each development charge payment received is allocated to those reserve funds in accordance with the development charge rate for each service, as statutorily required and the monies collected are expended for the purposes for which the development charge was calculated.

Money borrowed from a reserve fund is returned with interest, at a rate not less than the prescribed minimum rate.

11.2 Schedule of Charges

Table 11-1 shows the development charges currently in effect, inclusive of indexing, as well as a breakdown of the charges by service.

TABLE 11-1
DEVELOPMENT CHARGES (AS OF MAY 3, 2022)

	RESIDENTIAL				NON-RESIDENTIAL		
	Single and Semi-Detached	Multiple Unit Dwellings	Apartments Large Apartment ≥ 700 sq. ft.	Small Apartment < 700 sq. ft.	Per Square Foot of GFA Industrial / Office / Institutional Retail Hotel		
<u>Hard Services</u>							
Water	\$10,578	\$8,516	\$6,188	\$4,521	\$3.96	\$6.39	\$1.12
Wastewater *	\$21,746	\$17,506	\$12,722	\$9,295	\$8.10	\$12.30	\$2.29
Roads	\$26,654	\$21,454	\$15,593	\$11,391	\$9.74	\$33.15	\$6.60
Subtotal - Hard	\$58,978	\$47,476	\$34,503	\$25,207	\$21.80	\$51.84	\$10.01
<u>General Services</u>							
Transit	\$1,509	\$1,214	\$883	\$645	\$0.62	\$2.10	\$0.48
Subway	\$2,921	\$2,350	\$1,709	\$1,248	\$1.05	\$3.59	\$0.70
Waste Diversion	\$47	\$39	\$29	\$20	\$0.03	\$0.03	\$0.03
Police	\$1,042	\$839	\$608	\$445	\$0.57	\$0.70	\$0.14
Paramedic Services	\$456	\$367	\$267	\$195	\$0.08	\$0.08	\$0.02
Public Health	\$134	\$107	\$78	\$59	\$0.01	\$0.01	\$0.00
Senior Services	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0.00
Social Housing	\$242	\$194	\$141	\$103	\$0.00	\$0.00	\$0.00
Growth Studies	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0.00
Public Works	\$234	\$190	\$136	\$100	\$0.13	\$0.12	\$0.05
Court Services	\$45	\$38	\$28	\$20	\$0.02	\$0.03	\$0.01
Subtotal - General	\$6,630	\$5,338	\$3,879	\$2,835	\$2.51	\$6.66	\$1.43
Total	\$65,608	\$52,814	\$38,382	\$28,042	\$24.31	\$58.50	\$11.44

* Nobleton wastewater charge applies instead of York Region's wastewater charge in the Village of Nobleton
Does not include GO Transit development charges

11.3 Services Covered

The following table details the services covered under the 2017 Bylaw:

TABLE 11-2
SERVICES COVERED UNDER THE 2017 BYLAW

Service ¹	Service components
Roads	Growth structures (grade separations), new interchanges, midblock crossings, growth new infrastructure (missing links), growth widening to 4 and to 6 lanes, road improvements to support transit, environmental assessment, design, survey and property acquisition for future capital projects, Transportation Demand Management and Active Transportation programs and initiatives
Water	Planning and studies, storage, pumping, wells and water treatment, watermains and cost-shared projects (with Toronto and Peel)
Wastewater	Planning and studies, pumping, treatment, conveyance and cost-shared projects (with Peel)
Waste Diversion	Facilities, equipment and growth studies to expand on diversion capacity
Toronto-York Spadina Subway Extension	Land, stations, platforms, enclosures, subway infrastructure, vehicles, rights of way, system tracks, tunnel and single system, crossovers, and subway commuter facilities
Transit	Fleet expansion (YRT/Viva/Mobility Plus), transit garages, bus terminals and stops, electric bus infrastructure and charging stations, expansion of the automated fare collection system, bus rapid transit infrastructure and curbside service
Police	Facilities, vehicles and equipment, including communication, business intelligence and radio equipment
Paramedic services	Facilities and vehicles, including new stations and ambulances
Public Health	Facilities
Social Housing	Facilities
Senior Services-Capital Component	Facilities
Public Works	Facilities, vehicles and equipment to support Roads traffic operations
Growth Studies	Growth studies of a corporate nature to facilitate the implementation of the Region's capital program, such as Development Charges Background Studies, Municipal Comprehensive Review and Official Plan updates

¹ Financing costs associated with all services were included (where applicable).

11.4 Timing of Development Charge Calculation and Payment

Bill 108 amended the Act, permitting eligible development to freeze their development charges rates at site plan or zoning bylaw amendment application.

Development charges are ordinarily payable in full upon issuance of a building permit with respect to development, with the following exceptions:

- Eligible rental (that is not non-profit), institutional and non-profit development can phase in their development charges payments beginning at occupancy permit, or first occupancy, and for a period of between 5 and 20 years.
- In the case of development in a residential plan of subdivision, charges for the hard service component (water, wastewater and roads) must be paid at the time of Regional subdivision agreement signing. In accordance with the bylaw, payment must be made by certified cheque. If under extraordinary circumstances, the Regional Treasurer of York Region can determine that other forms of payment are appropriate, provided that it is in a format acceptable to the Treasurer of York Region.

The policy regarding full registration and phased payment of development charges in conjunction with build-out of residential subdivisions will be continued with the enactment of a revised development charges bylaw.

In the case of a non-residential building that includes both retail and non-retail uses, the determination of which non-residential charge is to apply to the floor area is based on the principal use of the building. The principal use is that which has the greater gross floor area. If no single use has 55 per cent or greater of the total gross floor area, then the development charge payable on the total gross floor area shall be the average of the two non-residential charges payable. Residential uses in mixed use buildings are charged according to the type and number of residential units and non-residential uses are charged in accordance with the type and quantity of gross floor area.

11.5 Indexing

The Development Charge rates are indexed for inflation on July 1 each year in accordance with the Statistics Canada Quarterly, Non-Residential Building Construction Price Index-Toronto (Table 18-10-0135-01).

11.6 Interest Policy – Under Section 26.1 and 26.2 of the Act

The Region's [DC Interest Policy](#) applies to the charging of interest, as permitted under sections 26.1 and 26.2 of the Act to developments that freeze development charges at site plan or zoning bylaw amendment application (Section 26.2 of the Act) or those developments who phase in their development charge payments (under Section 26.1 of the Act).

An interest rate of 5% will be charged, which will be compounded annually and accrues from the date of the eligible application until the date the total accrued amount is fully paid.

11.7 Redevelopment Credits

The 2017 Bylaw provides for a development charge reduction for certain qualified residential and non-residential redevelopment projects . If redevelopment occurs within 48 months of a building’s demolition or conversion, a credit towards the development charges payable may be offered. The credit is intended to encourage timely redevelopment after demolition.

For residential developments, or in the case of the residential uses in a mixed-use building or structure, the credit amount is calculated by multiplying the applicable development charge by the number of dwelling units, according to type, that have been or will be demolished or converted to another principal use.

For non-residential uses or non-residential uses in a mixed-use building or structure, the credit amount is calculated by multiplying the applicable development charges by the gross floor area that has been or will be demolished or converted to another principal use.

The amount of credit given will not exceed the total amount of the development charges otherwise payable with respect to the redevelopment.

For the purposes of the above, the onus is on the applicant to produce evidence to the satisfaction of York Region to establish the following:

- The number of dwelling units that have been or will be demolished or converted to another principal use; or
- The non-residential gross floor area that has been or will be demolished or converted to another principal use

For buildings deemed to be derelict by the relevant area municipal Council, the credit is extended for an additional 72 months in a declining scale. The table below details the calculation of credits provided to derelict buildings.

**TABLE 11-3
CALCULATION OF CREDITS FOR DERELICT BUILDINGS**

Number of months from date of demolition permit to date of building permit issuance	Credit provided (%) ¹
Up to and including 48 months	100
Greater than 48 months up to and including 72 months	75
Greater than 72 months up to and including 96 months	50
Greater than 96 months up to and including 120 months	25
Greater than 120 months	0

¹ Credits are calculated as a percentage of the prevailing development charge rates for the class of non-residential development or type of dwelling demolished.

11.8 Exemptions

11.8.1 Exemptions from the payment of development charges

The 2017 Bylaw includes a number of statutory and non-statutory exemptions.

Subject to restriction under the Regulations, the 2017 Bylaw, by way of the Act, provided residential development charges exemptions for additional dwelling units in existing residential buildings. Changes to the Act, through Bills 108 and 197 provide for expanded and additional residential exemptions, which will be discussed in Chapter 13 of this Background Study.

The Region also currently offers conditional development charges exemptions (full or partial) for affordable rental housing under the [Municipal Housing Facilities bylaw](#).

Finally, the Region provides development charges deferrals/exemptions, for housing built by Habitat for Humanity. These deferrals/exemptions are dependent on matching from local municipalities.

The table below provides a list of statutory and non-statutory exemptions.

**TABLE 11-4
STATUTORY AND NON-STATUTORY DEVELOPMENT CHARGE EXEMPTIONS**

Non-Statutory/Discretionary*	Statutory
<u>Residential</u>	
Relocation of a heritage house, where an area municipality agrees to a similar exemption Affordable rental housing projects owned by a non-profit organization (grant provided equivalent to the development charge payable) Habitat for Humanity developments, where an area municipality agrees to a similar exemption	Additional/second suites in new or existing residential buildings (subject to restrictions under O. Reg 82/98)
<u>Non-Residential</u>	
Institutional	
Public Hospitals receiving aid under the <i>Public Hospital Act, 1990</i> Addition or expansion is less than 50% of the original gross floor area	Public Schools Universities

Non-Statutory/Discretionary*	Statutory
<p>Land owned by and used for the purposes of a private school that is exempt from taxation under the <i>Assessment Act, 1990</i>, where an area municipality agrees to a similar exemption</p> <p>Agricultural uses (e.g., farm buildings)</p> <p>Accessory structures which are less than 100m² of gross floor area</p> <p>Lands, buildings or structures used for cemeteries or burial grounds exempt from taxation under the <i>Assessment Act, 1990</i></p> <p>Building or structure used for a community use owned by a non-profit corporation, where an area municipality agrees to a similar exemption</p> <p>Development of a place of worship for gross floor area up to a maximum of 5,000 square feet, or gross floor area that relates to the portion of the structure used principally for worship, whichever is greater</p>	<p>Municipal buildings</p> <p>Crown assets</p>
Office	
<p>Addition or expansion is less than 50 per cent of the original gross floor area</p> <p>Accessory structures which are less than 100m² of gross floor area</p>	Crown assets
Industrial	
<p>Accessory structures which are less than 100m² of gross floor area</p>	<p>Addition or expansion is less than 50 per cent of the original gross floor area</p> <p>Crown assets</p>
Retail	
<p>Accessory structures which are less than 100m² of gross floor area when not part of a live-work unit</p>	

*Note: Both residential and non-residential development could be eligible for a Vacant Lot of Record exemption

11.8.2 Construction types exempt from development charges

The following construction types are exempt from Regional development charges:

- Accessory buildings associated with residential development (e.g., garages, garden sheds, gazebos, swimming pool enclosures, etc.)
- Additions and alterations to existing dwellings including fireplaces, stoves, decks, porches, sunrooms, etc.
- Temporary buildings (e.g., special occasion buildings, tents, temporary sales offices)
- Repairs to restore existing buildings that do not require rezoning or variance
- Designated structures: retaining walls, exterior storage tanks, pedestrian bridges, dish antennae, crane runways and solar collectors
- Interior alteration to non-residential buildings which do not change the use of the building, including: the finishing or refinishing of non-residential floor areas (note: the construction of a mezzanine would not constitute “interior alteration” in this context and may be subject to development charges)
- Buildings which do not require a permit

11.9 Deferral options

Subject to the terms and conditions of the applicable policies, the Region offers a number of development charges deferral options which are detailed below.

11.9.1 Retail Buildings

A retail development has the option of securing development charge payment obligations through the provision of a Letter of Credit at the point at which development charges would otherwise be payable. The posted Letter of Credit shall be drawn upon in equal annual amounts over a three-year period, beginning with the first anniversary of building permit issuance.

11.9.2 High-Rise Residential Buildings

This deferral is dependent upon the developer of the high-rise residential building providing a Letter of Credit at the time of building permit issuance to secure the payment of Regional development charges. The Letter of Credit shall be drawn upon at the earlier of, 18 months after building permit issuance, or registration of the condominium¹.

11.9.3 Office Buildings

This deferral is dependent upon the developer of the office building providing a Letter of Credit at the time of building permit issuance to secure the payment of Regional development charges. The Letter of Credit shall be drawn upon 18 months after building permit issuance or occupancy permit/first occupancy (see policy for further details)³.

¹ Development Charges Policies (as per 2007 DC Bylaw Review/Background Study/Development Charge Pamphlet)

11.9.4 Purpose-Built Rental Buildings

For the purposes of this deferral, the development may be registered as a condominium, but it must be entirely operated as a rental property for a period of not less than 20 years. In order to be eligible, the development must be a minimum of four (4) storeys that are above grade (note that this requirement is addressed in Chapter 13 to the Background Study). This deferral is for 36 months after building permit issuance or occupancy permit/first occupancy (see policy for further details).

11.9.5 Large Office Buildings

Developers of large office buildings which are a minimum of 75,000 square feet and on the Regional Centres and Corridors or specific Local Centres may defer payment of Regional development charges subject to terms and conditions in the policy. The duration of the development charges deferral will vary based on the eligible gross floor area of the building. This deferral is for 5-20 years after building permit issuance or occupancy permit/first occupancy (see policy for further details).

11.9.6 Affordable, Purpose-Built Rental Buildings

For the purposes of this deferral, the development may be registered as a condominium, but it must be entirely operated as a rental property for a period of not less than 20 years. This deferral is for 5-20 years, after building permit issuance or occupancy permit/first occupancy, and will vary based on the location, total number of units and number of units that are two or more bedrooms (see policy for further details).

11.9.7 Open Air Motor Vehicle Storage Structures

Developers of open-air motor vehicle storage structures may defer payment of Regional development charges, beginning on the day of building permit issuance and continuing until the structure becomes enclosed (as defined in this policy).

11.9.8 Positive Business Expansion

Adopted by Regional Council on January 15, 1998, Bylaw No. A-243-98-5, the Chief Administrative Officer and Regional Treasurer will be authorized to negotiate deferred non-residential development charge agreements with non-residential development proponents, as long as the Local Municipality has agreed to a similar deferral.

Deferrals, in these instances should lead to:

- Increased long term non-residential assessment
- Job creation for Regional residents
- Economic activity (including construction, business spin-offs, etc.)

In instances where a deferral agreement has been executed under this Bylaw, the Chief Administrative Office and Regional Treasurer shall submit a report to Council immediately following the negotiation and execution of any agreement, setting out the terms of the agreement.

11.10 Transitional collection policies

11.10.1 Vacant lots of record

If the subject lot/subdivision was created prior to the imposition of a York Region's lot levy/development charge (i.e. March 1979 for residential development; March 1988 for non-residential development), there will be no requirement to pay the current prevailing development charge prior to building permit issuance if the lot has remained vacant and has not required any planning approvals in the interim period.

11.10.2 Subdivisions/lots registered and/or created prior to November 23, 1991, which require additional development approvals under authority of the Act

If a Regional lot levy/development charge has been previously paid in its entirety to the Region as a condition of subdivision (subdivision agreement) or land development (severance) approval, and there have been no amendments to the subject lot in the interim period, there will be no further requirement to pay the current Regional development charge ("top-up") at the time of building permit issuance.

If a development proponent has provided other monetary contributions or undertaken capital works in lieu of previous levy/development charge payments, there will be a credit granted against the payment of current Regional development charges, in accordance with the Act.

11.10.3 Residential subdivisions registered after November 23, 1991

If a development proponent has paid for the applicable roads, water and sanitary sewer components of the Regional development charge, subject to a subdivision or development charge agreement entered into with the Region, the general administration component of the Regional development charge should be collected by the Area Municipality, at the prevailing rate prior to building permit issuance.

All unregistered plans of subdivision will be required to enter into a development charge agreement with York Region that will impose the current prevailing road, water and sewer service component of the Regional development charge as indicated by a schedule to the Bylaw prior to execution of the agreement. The proponent shall pay the general administration component of the Regional development charge, and balance of the Regional development charges outstanding, at the prevailing rate to the Area Municipality prior to building permit issuance.

11.10.4 Non-Residential subdivisions registered after November 23, 1991

If a non-residential subdivision is created by plan of subdivision after November 23, 1991, then the applicable Regional DCs for the roads, water, sanitary sewer and general administration components of the charge shall apply at the prevailing rate, prior to building permit issuance.

11.10.5 Development lots created by severance after November 23, 1991

Lots created by severance after November 23, 1991 will be required to pay the current prevailing Regional development charge prior to building permit issuance.

11.11 Other policy detail

11.11.1 Collection responsibility policy

The Treasurer of the York Region shall collect development charges as follows:

- In the case of a residential subdivision, collection will occur upon the owner entering into the development charge agreement respecting such plan of subdivision for the applicable roads, water and sewer components of the development charge at the prevailing rate as determined by the designated schedule to the DC Bylaw
- In cases where a special agreement has been entered into between York Region and the owner providing for either provision of services in lieu of payment and/or providing for a payment at a time other than building permit issuance or subdivision agreement execution

Where York Region has collected a development charge in a format acceptable to the Treasurer of York Region, the Treasurer of York Region will notify the Treasurer of the Local Municipality in which the lands are located that the charge has been collected.

The Treasurer of the local municipality, where development is located and is subject to development charges, shall collect such Regional charges at the prevailing rate when due, as follows:

- In the case of residential subdivisions, collection will occur at building permit issuance stage for the general services component of Regional development charges, unless notified otherwise by York Region;
- In the case of non-residential subdivisions, collection will occur at building permit issuance for all services, unless notified by York Region that it has entered into an agreement concerning payment with a particular landowner;
- In the case of non-subdivision developments, collection will occur at building permit issuance for all services, unless notified by York Region that it has entered into an agreement concerning payment with a particular landowner;
- The Treasurer of the Local Municipality shall collect the charge imposed by the upper tier municipality when due and shall remit the amount of the charges collected to the Treasurer of York Region, on or before the 25th day of the month following the month in which the charge is received by the Local Municipality.

11.11.2 Full registration/phased development charges payment – residential subdivisions

York Region's Solicitor is authorized to prepare agreements pursuant to the Act for the purposes of allowing subdivision registration/phased payment of development charges if the following conditions are met:

- The Regional Corporation is in receipt of a written request from a sub-divider to enter into such an agreement:

- a) The draft approved plan of subdivision is a minimum of approximately 100 units
- b) The phases contemplated shall be a minimum of approximately 50 units
- The full development charge payment for the initial phase is made at the time of the execution of the agreement;
- The registration/phased development charge method of payment proposal be coordinated with and incorporated into the Local Municipality and Regional subdivision agreements;
- The payment of development charges for a subsequent phase must be coordinated with the provisions of the subdivision securities related to Local Municipal services for a subsequent phase; and
- For all subsequent phases of the development as specified in the agreement, the full Regional development charge shall be paid directly to the Region prior to any building permit issuance in that phase.

(Adopted by Regional Council June 22, 1995 and amended January 15, 1998)

11.11.3 Issuance of any building permits prior to registration

If an Local Municipality issues building permits for any reason prior to execution of York Region's development charge agreement and/or registration of the subdivision (e.g. model homes), the Local Municipality is responsible for collecting the entire Regional development charge at the time of building permit issuance, and so advising York Region's Finance Department.

11.11.4 Land severances on or after November 23, 1991

Land severances approved on or after November 23, 1991 will not have a condition attached with respect to the payment of York Region's development charges. Any resulting new lots will be subject to York Region's development charges, at the prevailing rate, prior to building permit issuance.

11.11.5 Part lot control exemption approved by York Region after November 23, 1991

Any additional residential units created in a Registered Plan of Subdivision by Part Lot Control Exemption, where the exemption has received York Region's approval, will be subject to York Region's development charges. The applicant will be required to enter into an agreement with York Region pursuant to the Act, with respect to payment of the appropriate development charges. York Region will collect the road/sewer/water component of the development charges at time of execution of the agreement, and the Local Municipality will be forwarded a copy of the Agreement to ensure the appropriate general services component is collected at building permit issuance.

11.12 Alternative collection policies (old s.13, s.14 - DC Act, 1990 credits)

11.12.1 Development charge credit area - Kleinburg

Specific lots in the Kleinburg area within the City of Vaughan, as identified in Schedules “C” and “D”, be incorporated as a water and/or wastewater development charge credit area with respect to payments previously made for growth-related water and wastewater infrastructure.

11.12.2 Contingent development charges

Specific contingent growth-related capital costs may be incorporated into the calculation of a particular component of York Region’s development charges rate. A schedule of pending rate increases, that become effective 30 days after the date of occurrence of a specific event, or events, is shown in Schedule “G” to the 2022 Bylaw.

11.12.3 Reserve funds

Development charges shall be deposited in a specific reserve fund established for each individual Regional (and local boards) service, in accordance with the Act.

- The Treasurer shall prepare and present to Council an annual statement of the development charge reserve fund in accordance with the Act, including, for the preceding year
- Statements of the opening and closing balances of the reserve funds and of the transactions relating to the funds
- Statements identifying all assets whose capital costs were funded under a development charge bylaw during the year, and for each asset mentioned previously, the manner in which any capital cost not funded under the Bylaw was or will be funded
- A statement as to compliance with subsection 59.1 (1) of the Act (prohibition against additional levies)
- Any other information that is prescribed

11.12.4 Complaints

Under section 20 of the Act, any person required to pay a development charge, or the person’s agent, may complain to the council of the municipality imposing the development charge that,

- The amount of the development charge was incorrectly determined;
- Whether a credit is available to be used against the development charge, or the amount of the credit or the service with respect to which the credit was given, was incorrectly determined; or
- There was an error in the application of the Development Charge Bylaw.

York Region has established a detailed Development Charge Complaint procedure under authority of the Act.

11.13 Development charges credit policy

A developer may undertake or finance York Region's capital works prior to the planned York Region's capital program in consideration for development charge credits and potential recovery of non-growth costs, providing the following:

- For purposes of quantifying the costs of works eligible for development charge credits, York Region will establish a scale of project(s) to allow for unit prices for smaller sized projects—projects that have an estimated cost lower than \$1 million—undertaken by developers, to be differentiated from large sized projects—projects that have an estimated cost greater than \$1 million
- York Region shall endeavour to assist developers by liaising with utilities when possible where projects require utility relocation
- Non-growth recovery – Developers are not eligible to recover non-growth costs
- For capital works not included in the ten-year forecast, York Region will continue to require the developer to make a non-refundable contribution to the non-growth costs of projects in order to expedite the works' construction/reconstruction timing
- Application for development charge credits will only be considered if the works are included in the Regional DC Bylaw. The eligible credit shall be limited to the value of the works in the DC Bylaw
- To be considered for advancement, generally the service-specific development charges, and in all cases the total development charges generated by the development associated with the capital works must be at least twice the value of the works for which the credit/reimbursement is being requested
- Development charge credits will not be offered unless the previous year's DC collections exceed the estimated current year DC-related debt servicing obligations (principal and interest) by at least the amount of the DC credit requested, both in total and for the specific service as determined by the Commissioner of Finance
- Advancement of the project cannot result in a negative impact to the Region's Annual Repayment Limit, as determined by the Commissioner of Finance
- The developer will be required to fund 100% of the cost of the capital works, and recover eligible growth-related costs, discounted for financing costs based on the project's timing in the Capital Plan as determined by the Commissioner of Finance. Non-growth costs will not be eligible for recovery
- Development charge credits will be issued up to a maximum 50% of the service-specific DCs payable upon each subdivision registration or building permit issuance, as applicable, until the total eligible growth-related costs are recovered
- The Region will pay for intersection and minor road improvements that are recommended in a development-related traffic study approved by the Region and are constructed in their ultimate location
- Reimbursement will be provided from the Roads DC reserve in the year the works are completed, provided sufficient funds are available in the Regional annual budget

- For roads (intersections and minor road improvements) reimbursement requests, the Commissioner of Transportation Services shall be authorized to approve the eligible cost of the works

The Region's [Development Charge Credit Policy](#) was first adopted by Regional Council on May 9, 1996 and May 23, 1996, with subsequent revisions adopted by Council on June 25, 1998 and [November 21, 2013](#).

Under the previous policy (1998), in circumstances where a landowner has paid for services that were intended to be funded by development charges, that landowner receives a credit against development charges that were otherwise payable, in the full amount of the development charge payable for the particular service involved. This created financing difficulty in that it confines the use of such development charges to the particular work involved and thereby reduces the development charge funds available for system-wide costs, such as major trunk sewers, treatment plants and pumping stations. In 2013, revisions to the development charge credit policy were made in order to address this issue and are outlined below:

- The developer shall forward a written request to Regional Council to consider a development charge credit matter, prior to construction of the works. There are no retroactive development charge credit provisions for works previously constructed by a developer without Regional Council approval.
- The costs for the works to be considered for development charge credit must be included in York Region's Development Charges Bylaw.
- Regional Council shall authorize and agree to a fixed development charge credit amount prior to allowing the construction of the works to be carried out. This is particularly important when the developer is constructing the works and the contract award process may not be as public as York Region's tendering process. Any amount agreed to for credit will be compared against awarded York Region's contracts in order to verify pricing accuracy. The developer will be required to provide York Region with a tender form in York Region's format for comparison with recent York Region tenders.
- For Regional water and wastewater infrastructure, York Region will determine responsibility for the design, tendering and construction with the developer responsible for the front-end financing.
- In instances where York Region agrees to permit a landowner to construct and front-end finance a work that is within the development charge program, the development charge credit shall be paid as follows:
 - a) Where the cost of the work is less than the development charges payable for the service involved, by the build-out of the landowner's development, a DC credit will be issued at subdivision registration. This credit is for the units involved in each subdivision, and will amount to the average cost of the work per unit. The average cost per unit is calculated as the cost of the infrastructure project involved, divided by the number of single detached equivalent units within the landowner's total development, and shall not exceed the prevailing rate for the service component. The landowner will continue to receive such credits until reimbursed for the cost of the infrastructure project, without interest or indexing.

- b) Where the cost of the work exceeds the development charge payable for the service involved, by build-out of the landowner's development, the development charge credit will amount to 50% of the development charge payable for the service involved. The remaining development charge credits will be paid beginning in the year that the project was originally scheduled to commence on an equal basis over the remaining term of the Bylaw i.e. 2017 to 2031. This payment will be based on a long-term credit payment arrangement, as approved by Regional Council, the timing of which recognizes the need to provide for the financing requirements of broader system-wide costs for the service involved and may include indexing provision.
- The credit will be restricted to the service component of the Regional development charge that the developer is required to pay at the registration/subdivision agreement stage (i.e. roads credits restricted to road development charge component that the developer is required to pay at registration).
 - Any development charge credit request that exceeds the development charges payable by the subdivider for a particular service (i.e. roads, water or sewer) will be subject to a negotiated long-term credit arrangement as approved by Regional Council and shall include a provision to consider the system-wide costs for the service component.
 - The developer shall, where warranted, be required to make a contribution toward the non-growth component costs based on the fact that the works are being constructed in advance of the Regional capital program (to minimize impacts on existing residents), particularly if the Regional Corporation is not in a position to adjust budgets, to provide for the non-growth portion of the project in a budget year:
 - a) Where the capital works are included in the ten-year capital program forecast and the works are advanced for construction to the current budget year, York Region shall reimburse the developer for an amount equivalent to the present value of York Region funding the non-growth portion ahead of the planned program expenditure. The present value will be calculated based on the subject works, and will be based on an interest rate reflecting an average of long term investment and debenture rates available to the Regional Corporation, adjusted to reflect future capital cost indexing.
 - b) In situations where York Region cannot adjust its capital budget to fund the Regional share of the growth and non-growth costs in a budget year, the development charge credit request may be denied and/or the developer requested to make a larger non-recoverable contribution. In addition, York Region may enter into a deferred repayment of the growth and non-growth components until a time consistent with the planned capital program, subject to approval by Council.
 - c) Where the capital works are not included in York Region's ten-year capital program forecast, the developer will be required to make a non-recoverable contribution for the full value of the non-growth costs.

- The credit for services constructed will be included in the York Region's subdivision agreement.
- The developer shall secure the total costs of the works by a Letter of Credit, in a format satisfactory to York Region's Treasurer. The Letter of Credit will also secure payment of the development charge component under consideration for credit. The Letter of Credit will be held until such time as the capital works are constructed to the satisfaction of the Regional Corporation.
- The Letter of Credit will be released in the following manner:
 - a) Where York Region has constructed the capital works the Letter of Credit shall be released in accordance with the holdback release provisions in the terms of the construction contract entered into by the Regional Corporation; or
 - b) Where the developer has constructed the capital works, a 10% holdback of the value of the works shall be retained by York Region for a one-year maintenance/warranty period after satisfactory construction of the works.
- A cost-recovery fee applicable to each credit request will be charged for engineering, legal and finance department costs incurred related to preparation and administration of the development charge credit agreement. The fee will be structured in the following manner when the developer constructs the capital works, the credit arrangement is incorporated in the subdivision agreement and the credits achieved upon satisfactory construction of the works:
 - a) A minimum fee of \$1,000 shall be required to review a development charge credit request.
 - b) A fee equivalent to 1.0% of the value of the works shall be applicable for all capital works under \$1 million.
 - c) A fee up to 1.0% of the value of the works shall be applicable for all capital works greater than \$1 million.
 - d) In instances where York Region's fees to prepare and administer the agreement are beyond the cost recovery provisions outlined above, such fees shall be separately quantified and invoiced to the developer.
- Where York Region constructs the capital works and the credit arrangement is to be administered in lieu of payment of development charges at the time of subdivision(s) registration, an administration fee up to 1.0% of the value of the works shall be required, in addition to the fees outlined above.

Note: Where York Region enters into an agreement to advance the construction timing of capital works in lieu of payment of development charges at the time of subdivision(s) registration, the above mentioned fee shall be based on the awarded price of the works. If the total project cost exceeds the awarded price by 20%, York Region's Treasurer may apply an additional administration fee to cover the cost associated with administering the agreement.

11.14 Development charges roadworks credits

11.14.1 General conditions

In general, York Region will consider development charge credits for road-related works constructed to the ultimate location, as outlined in a [Guideline for applicants](#). The ultimate location is defined by the next planned upgrade for a road section as detailed in the background report for the Development Charges Bylaw. The credit will be based on the capital cost of the works with each credit application being reviewed individually. The credit will be defined by that portion of materials placed in their ultimate location that can be reused by York Region. Development charge credits will be considered for the following:

- Construction of intersection improvements
- Construction of complete road sections
- Utility relocations (York Region's share of the cost)
- Contract design and inspection costs where the developer submits the contract drawings, design files and specification documents in the York Region approved format and the work is constructed in the ultimate location

In calculating the credit, staff will determine the work and materials that do not require further reconstruction by York Region in the development of the ultimate configuration. Development Charge credits will not apply to the following:

- Land purchases
- Overall project management, co-ordination or administration
- Construction contingencies
- Road improvements required for the exclusive use of a private entrance including new signals or signal alterations, turning lanes, etc.
- Construction of that portion of a local road within the York Region's Right of Way
- Removals, unless the new works are constructed to the ultimate location

To obtain credits, the developer must submit a list in York Region's tender format of detailed items which are to be considered as recoverable, including percentages recoverable from York Region. These prices will be compared to recent unit prices for York Region's contract prices. York Region will establish a scale of project(s) to allow for unit prices for smaller sized projects undertaken by developers to be differentiated from larger sized projects.

Other costs may be recommended to be eligible by the Commissioner of Transportation Services, when such services are deemed to be in the interest of York Region subject to approval by Regional Council.

11.14.2 Non-growth recovery

For capital works included in the 10-year forecast, York Region will endeavour to recognize intersection improvements (and scheduling) as part of the capital forecast, and consider their improvement prior to the ultimate reconstruction of a road. The discount rate used by York Region to account for the differential in non-growth expenditure timing will be adjusted to reflect future capital cost indexing.

For capital works not included in the 10-year forecast, York Region will continue to require the developer to make a non-refundable contribution to the non-growth costs of projects in order to expedite the works' construction timing. In order to recover a portion of the non-growth costs, Regional Council is required to endorse the projects for construction in York Region's ten-year capital program.

Note: York Region shall endeavour to assist developers by liaising with utilities when possible where projects require utility relocation.

A cost-recovery fee applicable to each credit request will be charged for preparation and administration of the development charge credit will be structured in the following manner where the developer constructs the capital works and the credit arrangement is incorporated in the subdivision agreement and the credits achieved upon satisfactory construction of the works:

- A minimum fee of \$1,000 shall be required to review a DC credit request
- A fee equivalent to 1.0% of the value of the works shall be applicable for all capital works under \$1 million
- A fee up to 1.0% of the value of the works shall be applicable for all capital works greater than \$1 million

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12 DC BYLAW AND POLICIES: AREAS OF REVIEW

The following sections outline the development charges policies and bylaw considerations that will be part of the 2022 Bylaw:

- Areas of the Bylaw and policies that have been reviewed but remain unchanged
- Areas of the Bylaw that have been reviewed and updated
- Policies that have been amended

12.1 Areas of the Bylaw and Policies reviewed but unchanged

The following are areas of the Bylaw and associated policies that were reviewed but remain unchanged.

12.1.1 Region-wide versus area-specific development charges

Under section 10 of the Act, before passing a development charges bylaw, Council must consider the use of area-specific development charges. Area-specific development charges are most appropriately applied to clearly defined localized area(s) where the growth-related infrastructure provides a clear benefit to the anticipated development.

Area-specific development charges are also most often used to recover costs for hard infrastructure or engineering projects such as water towers, water mains, sewer pumping stations, sewer mains and sometimes roads and related infrastructure.

Historically, the Region has levied a uniform, Region-wide charges for its services, with the exception of the water resource recovery facility located in the Village of Nobleton.

Ontario municipalities do not typically levy area-specific development charges for “soft” services or protection services such as police, social housing, paramedic stations or others. These types of services are typically planned for and delivered on a municipality-wide basis and therefore a uniform approach would be the most appropriate.

In February 2022, Council endorsed, in principal, the use of a uniform Region-wide development charges rate structure to recover the growth-related costs for all services contained in the 2022 Development Charges Bylaw and Background Study, including the Yonge North Subway Extension. Key reasons for continuing with a Region-wide, uniform approach for all services were:

- Majority of the Region’s services provide a Region-wide benefit, whereas area-specific development charges are usually more suitable for new, or currently unfunded, standalone water/wastewater systems where the benefitting area is clearly defined
- Regional services are managed as a network and the level of service is relatively consistent across the Region
- Aligns with the use of uniform Region-wide property taxes to fund the non-DC share of costs

- Data and robust methodologies are available to establish the nexus between the infrastructure and growth
- Deviation from a uniform, Region-wide approach may set a precedent

The Region retained Hemson Consulting to conduct a detailed analysis of uniform region-wide rate structure and two area specific alternatives for the Yonge North Subway Extension. This analysis can be found in Appendix B of this background study. An additional analysis can be found in Attachment 3 to the May Council report titled, “2022 Development Charges Bylaw and Background Study – Final”.

12.1.2 Threshold to delineate large and small apartments

As part of the 2017 Bylaw update, Council revised the threshold to delineate large and small apartments, from 650 sq. ft. to 700 sq. ft. Staff committed to reviewing this threshold as part of the work on the next DC bylaw.

An analysis using 2016 Census and size data of close to 37,000 apartments confirmed that a 700-square-foot threshold continues to be appropriate to delineate large and small apartments in York Region for the purposes of the 2022 Bylaw. In November 2021, Council approved maintaining this delineation point for the 2022 Bylaw.

12.2 Areas of the Bylaw that have been reviewed and updated

The following are areas of the Bylaw that were reviewed and updated.

12.2.1 Treatment of stacked townhouses

The Region’s 2017 Bylaw has four categories of residential charges: single and semi-detached dwellings, multiple-unit dwellings, large apartments, equal to or greater than 700 sq.ft., and small apartment less than 700 sq.ft.. Stacked townhouses were charged a multiple unit dwelling rate.

The differences in the rates are based on the average anticipated occupancy levels, or persons per unit, for each residential category. The 2022 Bylaw and Background Study, whilst maintaining the above-mentioned four categories, uses Statistics Canada data to forecast persons per unit in each type of dwelling to determine the residential development charges rates. Statistics Canada definition of apartments includes stacked townhouses. Treating stacked townhouses as apartments, for the purposes of levying development charges, would therefore be consistent with the Statistics Canada classification of apartments which includes stacked townhouses.

12.2.2 Treatment of residential dwellings less than 700 sq. ft. (“Tiny homes”)

“Tiny homes” are small, self-contained residential units built for year-round use with a living area that includes a kitchen, dining, bathroom and sleeping area. Under the 2017 Bylaw, a detached tiny home would have been assessed at a single-detached dwelling rate. However, based on observed sizes across Ontario, these homes appear to be closer to, if not smaller than, small apartments.

Through Council approval in November 2021, any residential dwelling in York Region less than 700 sq. ft. will be charged the small apartment rate in the 2022 Bylaw.

12.2.3 Treatment of hospices

To reflect the need for the vital services that hospices provide, and to simplify the existing process, it is being recommended that Section 3.5.1 of the 2022 Bylaw provide a development charge deferral or exemption for hospices, contingent on local municipal matching.

12.2.4 Statutory DC Exemptions – Residential and Non-Residential

Through changes to the Act and accompanying regulations, additional exemptions for both residential and non-residential developments have been provided.

Subject to [restrictions](#), the Act now not only provides development charges exemptions for additional dwellings in, or ancillary to, existing residential buildings, but also for second suites in, or ancillary to, new residential buildings.

The Regulation also provides that common areas in existing rental buildings can be converted into residential units and be exempt. This conversion exemption is limited to additional units equivalent to the greater of 1 and 1% of existing units.

Finally, through Bill 213, development on land owned or leased to a university, receiving funding from the government for the purposes of post-secondary education, is exempt from development charges.

The 2022 Bylaw will reflect these exemptions.

12.2.5 Timing of payment – phased development charges payments

The 2022 Bylaw will also be updated to incorporate changes to the Act which provide that rental housing, that is not non-profit, institutional development and non-profit housing can phase in their development charges payments.

Development charges for rental housing, that is not non-profit, and institutional developments will be paid, beginning at occupancy, in equal annual instalments over five years. Development charges for non-profit housing are to be paid, beginning at occupancy, over 20 years.

12.2.6 Definition of ‘general services’

The definition of general services has been expanded to include the YNSE. In addition, the following general services’ names have been changed:

- Social Housing to Housing Services
- Senior Services Capital Component to Long-Term Care/Seniors Services
- Paramedic Services to Ambulance Services

12.3 Policies that have been amended

On November 25, 2021, Regional Council approved changes to a series of development charges policies, summarized in the Table 12-1 below:

TABLE 12-1

COUNCIL-APPROVED CHANGES TO DEVELOPMENT CHARGES POLICIES

Policy	Key Changes
Purpose-Built Rental	Removal of four-storey requirement; to align with current legislation and other Regional development charges deferral policies and to provide clarification
Office Buildings Open Air Motor Vehicle Storage Structures	To align with current legislation and other Regional development charges deferral policies and to provide clarification
Interest Policy	Provision of up to a 14-day grace period (contingent of local municipal matching)

13 ASSET MANAGEMENT PLAN

13.1 Background

Under the Act, municipalities proposing to enact a development charges bylaw are required to submit an Asset Management Plan (AMP) as part of the development charges background study.

The asset management plan shall:

1. Deal with all assets whose capital costs are proposed to be funded under the DC by-law
2. Demonstrate that all the assets mentioned in item 1). are financially sustainable over their full lifecycle

This chapter has been prepared based on the *Development Charges Act, 1997* and Ontario Regulation 82/98 and includes the analysis pertaining to assets that are proposed to be funded, in whole or in part, by development charges.

Asset management at the Region has been evolving and speaks to all assets including growth, renewal and operating needs as required by [O.Reg. 588/17](#).

The Region has an Asset Management Framework to streamline asset management activities across all infrastructure service areas. The framework incorporates leading industry asset management knowledge and provides templates for service areas to follow in advancing their asset management programming.

Key areas of the framework include:

1. Standardized State of Infrastructure Report for annual updates related to condition, capacity, and reliability
2. Risk Assessment System for understanding asset condition risks across the portfolio
3. Level of Service Framework to adhere to regulatory requirements
4. Climate Change Workbook to incorporate climate change impacts into infrastructure decision making
5. 100-year lifecycle costs to understand long-term costs of each service area portfolio, and to act as a mechanism for reserve fund planning for the Region's asset portfolio as a whole

To provide a full view of the asset management needs for all assets funded under the Region's DC Bylaw, the full range of services is included in this analysis (Section 13.3.1 – Table 13-2):

- Water
- Wastewater
- Roads
- Transit

- Toronto-York Spadina Subway Extension
- Yonge North Subway Extension
- Police
- Waste Diversion
- Ambulance Services
- Long-Term Care/ Seniors Services
- Public Health
- Housing Services
- Court Services

13.1.1 Growth to 2041

The 2022 Development Charges Background Study uses a population and employment forecast to 2041 as the basis for determining growth-related infrastructure needs, as detailed in Chapter 2.

13.1.2 Development Charges Act, 1997 Requirements

The Act requires an analysis be prepared, as shown in Figure 13-1, to support the proposed infrastructure in a development charges bylaw. Additionally, a summary of the current state of infrastructure, planned level of service and potential asset management strategies must be prepared for proposed development-charge-funded transit infrastructure.

FIGURE 13-1

ASSET MANAGEMENT PLAN REQUIREMENTS



13.2 Potential Asset Management Strategies

In general, growth assets included in this asset management plan have yet to undergo environmental assessments and detailed design. This section identifies potential asset management strategies that may apply and will be considered in future lifecycle planning. Transit-specific asset management strategies are discussed in Section 13.5 of this asset management plan.

13.2.1 Asset Condition Monitoring

Annual tracking, monitoring, and reporting of asset condition by department, and an assessment of reserves for asset management are undertaken as part of the annual performance metric reporting on the percentage of Regional assets with a condition rating of fair or better.

In 2020, the overall percentage of core assets, defined by O.Reg 588/17 as water, wastewater and roads, was reported at 86% being in fair or better condition, with roads service assets accounting for approximately 10.5% of assets in poor or very poor condition. Water and wastewater service assets in similar poor and very poor condition accounted for 3.5% of the total asset base. All assets identified in the poor and very poor categories have planned rehabilitation and replacement activities in place.

The Region has set up an Asset Management Framework to streamline asset management activities across the organization; this includes ensuring a climate change lens is incorporated into infrastructure decision making.

Condition monitoring and assessments will support the refinement of asset management decision making from methods such as age-based planning to risk / condition / performance-based planning, which may allow for the greatest service life to be realized, reducing lifecycle costs.

13.2.2 Asset Lifecycle Rehabilitation and Replacement Analysis

To realize designed service life, asset rehabilitation may be required for some assets. In most cases, lifecycle cost projections have included rehabilitation needs typical for each asset type; however, as more information is known about an asset, this broad projection can be tailored to consider specific factors affecting each asset. For example, changing regulations or construction quality may apply to specific assets, differently impacting the lifecycle cost.

For major assets where rehabilitation or replacement is expected in the next 10 years, detailed condition assessments and monitoring is undertaken to verify asset deterioration and program short-term budget priorities as part of the annual budget process.

13.3 Estimated Lifecycle Costs

13.3.1 Lifecycle Cost Projection Methodology

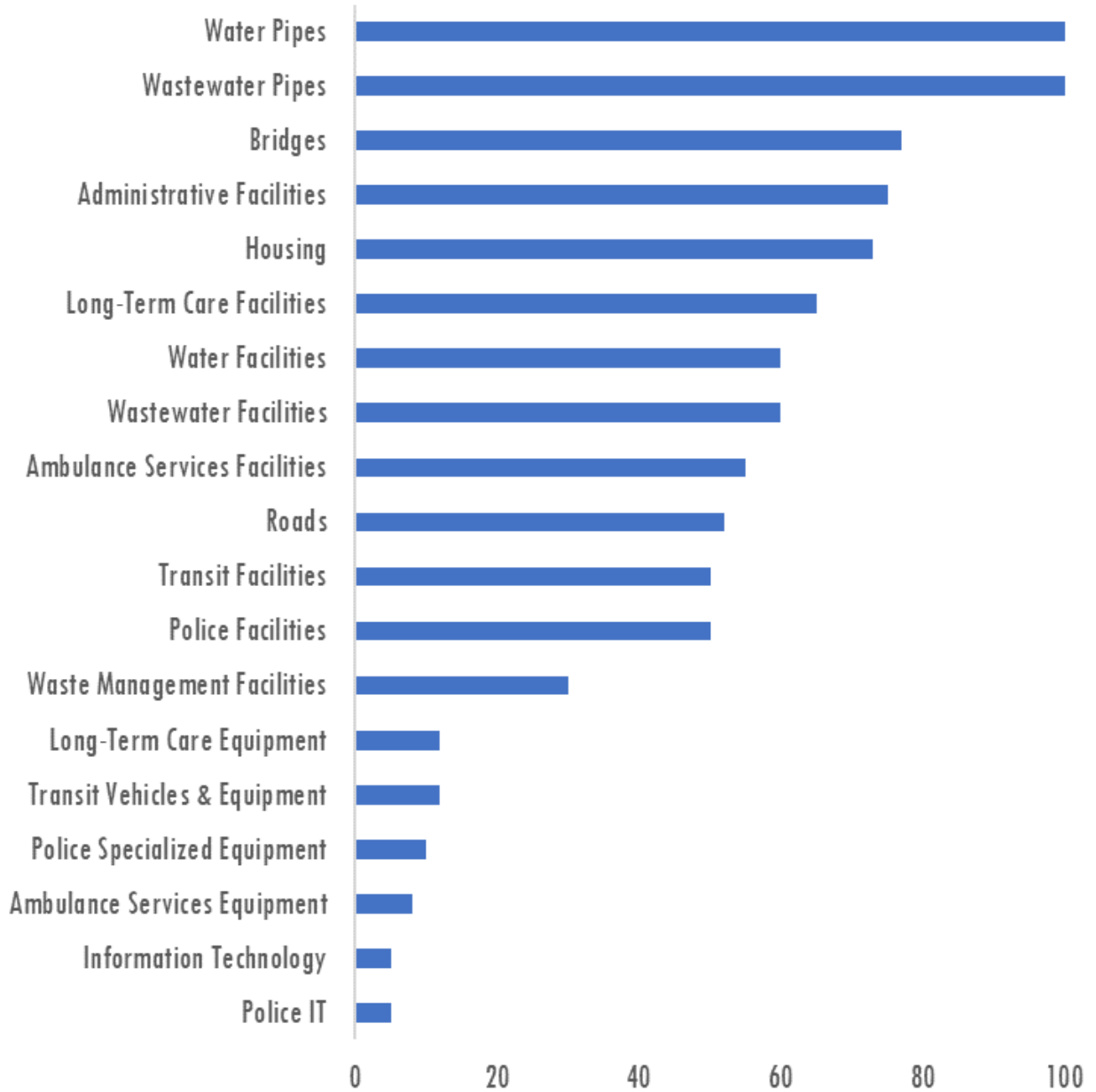
Asset lifecycles have been projected based on two methods depending on whether sufficient condition information is available. Typically, meaningful condition assessment information is not available until determinate signs of deterioration are observable. The two methods are summarized in Table 13.1 below.

TABLE 13-1
LIFECYCLE COST PROJECTION METHODOLOGY

Assets	Projection Method
Newly constructed assets and assets planned but not yet designed or constructed	Method A Expected Service Life for Asset-Type Estimated Replacement Cost
Existing assets with condition assessment information	Method B Detailed Condition Assessment and Deterioration Projection results

Lifecycle costs for the majority of assets included in this plan have been projected based on Method A in Table 13-1, which assumes that assets will be replaced at the end of expected service life. Expected service life for the asset types included in this plan is presented in Figure 13-2.

**FIGURE 13-2
EXPECTED SERVICE LIFE**



13.3.2 Lifecycle Cost Summary

This section summarizes the long-term investment needs to sustain the DC-funded infrastructure required to enable growth to 2041. Table 13-2 summarizes the total lifecycle costs over a 100-year period. Detailed discussion regarding lifecycle costs of transit assets can be found in Section 13.5.1 of this asset management plan.

TABLE 13-2
LIFECYCLE COST SUMMARY OF DC-FUNDED SERVICES

DC-funded Services	Gross Project Costs (Emplacement)* \$M	100-Year Lifecycle Needs (Excluding Emplacement) \$M
Rate-Funded:		
Water	676	793
Wastewater	2,389	3,144
Sub-Total: Rate	3,065	3,938
Tax Levy-Funded:		
Roads**	8,369	9,938
Transit**	1,297	1,745
TYSSE***	7	0
YNSE***	1,120	-
Police	369	3,999
Waste Diversion	130	406
Public Works	279	708
Ambulance Services	41	146
Public Health	32	64
Housing Services	909	1,817
Long-term Care/ Senior Services	3	5
Court Services	0	0
Sub-Total: Tax Levy	12,555	18,827
GRAND TOTAL	15,620	22,765
Contingencies		
Roads	1,607	1,828

* For this table, Gross Project Costs exclude items without associated life-cycle costs, like DC credits, environmental assessments, and growth studies.

** The 2022 Background Study reflects \$2.9 billion in Bus Rapid Transit (BRT) costs, which are included in Roads and Transit services. This analysis assumes that the Region is not responsible for the lifecycle costs of BRTs, consistent with the Region's existing BRT network.

*** YYSSE lifecycle costs are funded by the City of Toronto. YNSE lifecycle costs will be determined once ownership and operational agreements are negotiated.

13.4 Transit Infrastructure

13.4.1 Requirements under the Act and the Ontario Regulation 82/98

Section 8(3) of the Ontario Regulation 82/98 under the Act states that if a council of a municipality proposes to impose a development charge in respect of transit services, the asset management plan referred to in clause 10(2) (c.2) of the Act shall include the following in respect of those services:

- A section setting out the state of local infrastructure
- A section that sets out the proposed level of service
- An asset management strategy that:
 - sets out planned actions that will enable the assets to provide the proposed level of service in a sustainable way, while managing risks, at the lowest life cycle cost
 - is based on an assessment of potential options to achieve the proposed level of service, which assessment compares: life cycle costs, all other relevant direct and indirect costs and benefits, risks associated with potential options
 - provides a summary of (in relation to achieving the proposed level of service) non-infrastructure solutions, maintenance activities, renewal and rehabilitation activities, replacement activities, disposal activities, and expansion activities
 - discusses procurement measures that are intended to achieve the proposed level of service
 - includes an overview of the risks associated with the strategy and any actions that will be taken in response to those risks
- A financial strategy

This section addresses the first three requirements. The financial strategy can be found in Section 13.6 of this chapter.

13.4.2 State of Infrastructure

13.4.2.1 Asset Type and Historical Cost

York Region currently owns approximately \$749 million worth of transit infrastructure, including bus fleet vehicles, garages, transit terminals and loops, transit stops, equipment and technology.

TABLE 13-3
TRANSIT ASSET TYPE AND HISTORICAL COST

Asset Type	2019 Inventory	2019 Historical Cost (\$M)
Bus Fleet Vehicles	590	355
Garages, transit terminals and loops	20	254
Transit stops	5,000+	
Equipment and Technology	Various	140
TOTAL		749

(Source: 2019 Transportation State of Infrastructure Report Card)

Note: Only Transit Fleet (Conventional, Bus Rapid Transit (Viva buses), and Mobility on Request) and Facilities (Garages, Terminals, Transit loops, and Transit Stops) have been included in the current Transit AMP.

13.4.3 Growth Planning Proposed Level of Service

The Act requires that a planned level of service be defined if development charges are levied for Transit infrastructure. For the purpose of the development charges background study, the planned level of service for transit is defined in the Region’s 10-year capital plan. Through approval of the annual budget, which includes a 10-year capital plan, Council indicated that it intends to ensure that an increase in need for transit service will meet the transit network as per the latest [Transportation Master Plan, York Region Transit Strategic Plan and Service Guidelines](#). Service Guidelines define how new services are designed, and how existing transit routes are evaluated for service adjustments. They are applied in tandem with route performance measures.

Development of Transit levels of service starts with the objectives for Transportation Services identified in York Region’s Vision and 2019 to 2023 Strategic Plan. Levels of service at the customer, technical and operational levels were developed based on these directions, focusing on safety, reliability, and efficiency.

Tables 13-4 and 13-5 provide the levels of service as indicated in the Transit Asset Management Plan.

**TABLE 13-4
FLEET LEVELS OF SERVICE CATEGORIES**

Service	Performance Metric	1 (Lowest)	2	3	4	5 (Highest)
Fleet Reliability	Distance between failures (km)	<10,000	10,000-12,000	>12,000-14,000	>14,000-16,000	>16,000
Capacity	Demand to capacity ratio by route	<50%	50-59%	60-69%	70-90%	>90%
Operating Efficiencies (Net Cost per Passenger)	Vehicle and overhead cost per passenger (as multiples of the average fare)	>5x	>4x – <=5x	>3x – <=4x	>2x – <=3x	<=2x
Operating Reliabilities (On-time Performance)	Early/late trip starts	<91%	91-<92%	92-<93%	93-<94%	>=94%
Fleet Cleanliness	Cleanliness score based on sample inspected	<93%	93- <95%	95- <97%	97-<99%	>=99%

The Region evaluates asset performance by looking beyond the physical infrastructure condition and incorporating other factors impacting service quality and satisfaction. Levels of service are defined by current and future Regional needs, and can be defined at three levels: corporate, customer, and technical and operational. Indicators have been established to support assessment and reporting. These levels of service have been measured at the technical and operational level and linked to the Region’s Strategic Plan Objectives and Transportation Services Mission.

**TABLE 13-5
FACILITIES LEVELS OF SERVICE CATEGORIES**

Service	Performance Metric	1 (Lowest)	2	3	4	5 (Highest)
Condition	Assessment results for Garages	Architectural components are well maintained/ functional and all other components are either Poor or higher	Architectural components are well maintained/ functional and all other components are either Fair or higher except one component in Poor condition	Architectural components are well maintained/ functional and all other components are either Fair or higher	Architectural components are well maintained/ functional and all other components are either Good or Very Good except one component in Fair condition	Architectural components are well maintained/ functional and all other components are either Good or Very Good
Capacity	Capacity as a percentage of fleet size ratio for each garage	>85%	70% - 85%	60% - <70%	50% - <60%	<50%
Service Coverage	Location	<50%	50-69%	70-84%	85-89%	>=90%

(Based on 2019 Data)

Note that the level of service in this asset management plan refers to the metric that is used to identify infrastructure needs due to population and employment growth. This metric also underpins the Region’s growth-related capital program, which is designed to meet these targets. This level-of-service metric is not the same as metrics used to determine long-term lifecycle needs.

Growth planning level of service for transit infrastructure is planned using average annual increase in ridership. This data is based on projections from the Regional transportation demand forecasting tool Activity Based Model (ABM) and the network of transportation improvements identified in the Transportation Master Plan updates, in terms of modal splits and forecast trips in the peak hour and peak direction. Network improvements as identified in the Transportation Master Plan and the Council-endorsed capital plan are used to update the Transit AMP.

13.4.4 Current Level of Performance Relative to the Targets

The Transit AMP defines the following levels of service categories (Table 13-6 and Table 13-7) and the level of services.

**TABLE 13-6
FLEET LEVELS OF SERVICE CATEGORIES**

Service Category	Metric	Level of Service Summary (Grade 5 = Highest)
Fleet Reliability	Distance between failures	Grade 5 - Average for conventional and Viva busroutes was greater than 16,000 km
Capacity	Demand to capacityratio	Number of Services by Grade:Grade 5 – 24 routes Grade 4 – 17 routes Grade 3 – 11 routes Grade 2 – 5 routes Grade 1 – 21 routes
Operating Efficiencies (Net Cost per Passenger)	Vehicle and overheadcost per passenger	Number of Services by Grade: Grade 5 – 64 routes Grade 4 – 9 routes Grade 3 – 5 routes Grade 2 – 1 route Grade 1 – 5 routes
Operating Reliabilities (On- time Performance)	Early/late trip starttime	Grade 5 – The percentage of on-time trip starts forconventional and Viva bus routes was greater than94%
Cleanliness	Vehicle condition (vandalism/ paint)	Grade 5 – Viva and Mobility Plus buses achieved a cleanliness score above 99% Grade 4 – Conventional buses achieved a 97% score

**TABLE 13-7
FACILITIES LEVELS OF SERVICE CATEGORIES**

Service Category	Performance Metric	Level of Service Summary (Grade 5 = Best)
Facility Condition	Condition inspection for garages	Grade 5 and 4 – The majority of inspected garages had all or most components in Good condition Grade 3 – One inspected garage had more than one component in Fair condition
Garage Capacity	Fleet size as a percentage of garage capacity	Grade 1 and 3 – In 2019, two of the transit garages had a capacity to fleet ratio of 95% or higher, while one garage was at 65%
Service Coverage	Location of transit stops relative to population	Grade 5 – 93.7% of urban residents are within 500m of a transit stop

(Based on 2019 Data)

13.5 Transit Asset Management Strategy

13.5.1 Estimated Useful Life

Table 13-8 shows the average useful life for Transit assets. Mobility on Request vehicles vary by type with Eldorado vehicles having a useful life of 12 years and other vehicles estimated to have a useful life of seven years.

**TABLE 13-8
USEFUL LIFE ESTIMATES**

Asset Type	Useful Life (years)
Bus fleet (60' and 30')	12
Bus fleet (40')	18
Garages, terminals, and transit loops	50
Transit stops (shelters and platforms)	15
Equipment and Technology	5-15

(Source: Transportation Services Department)

13.5.2 Fleet Age

Figure 13-3 provides the age profile for the York Region Transit conventional fleet. The Region owns and operates conventional buses, Viva buses and the Mobility-on-Request program. Table 13-9 shows the replacement cost profile by age of asset and type of fleet.

FIGURE 13-3
AGE PROFILE FOR ALL TRANSIT BUSES BY REPLACEMENT COST (2019 DATA)

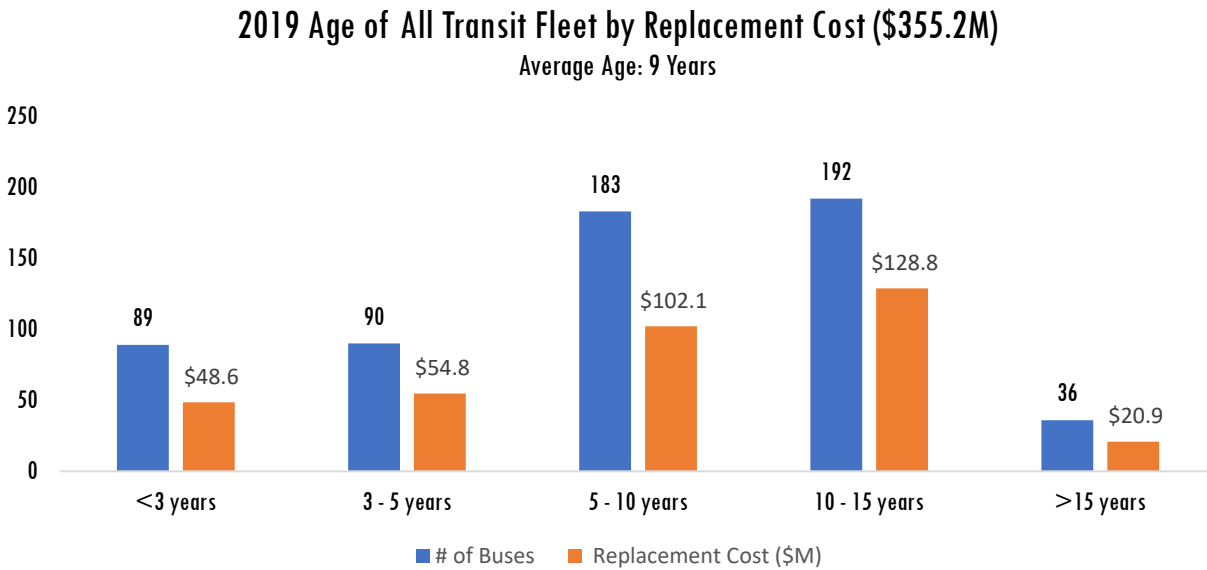
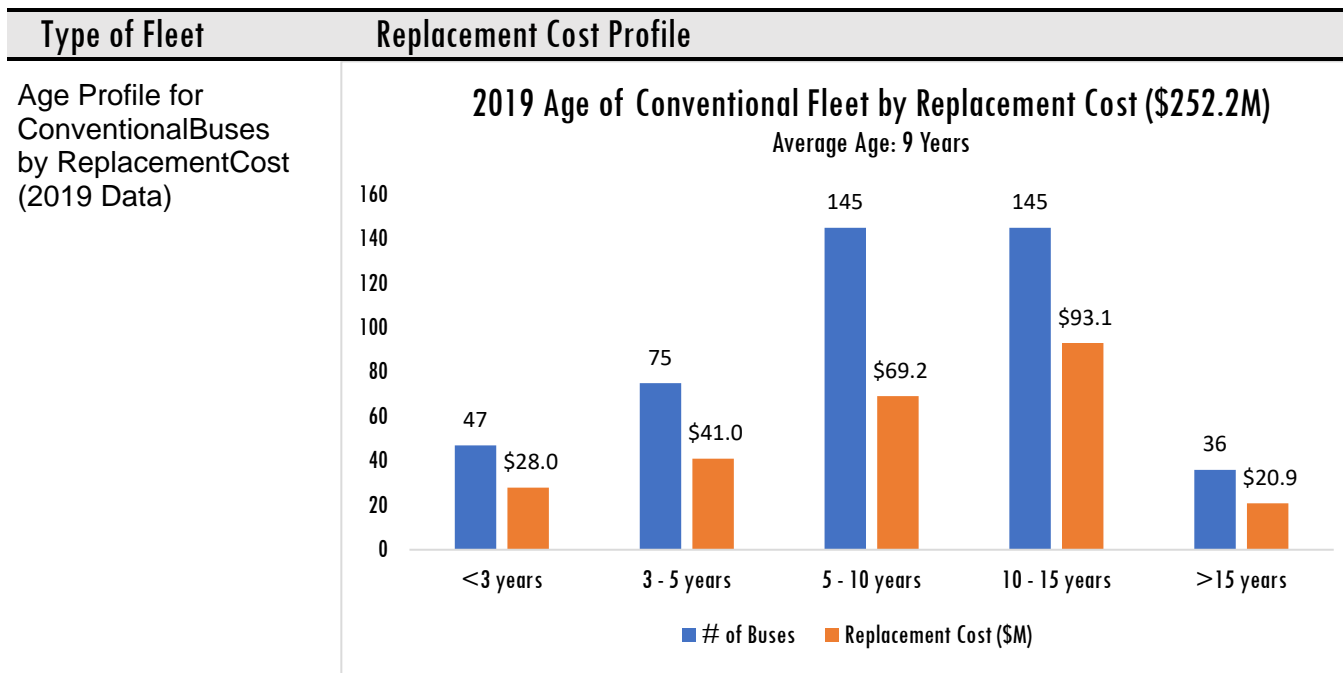
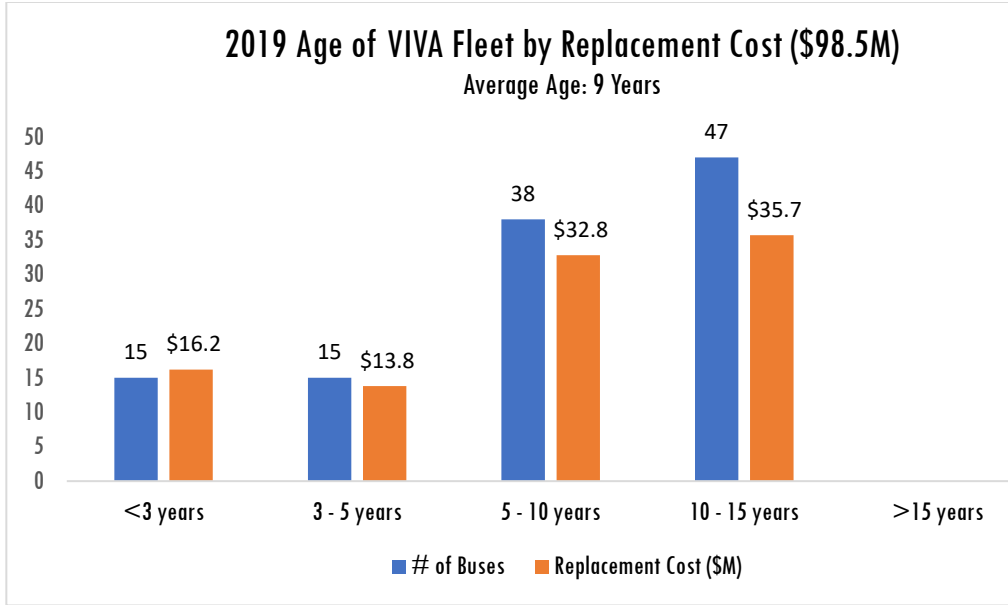


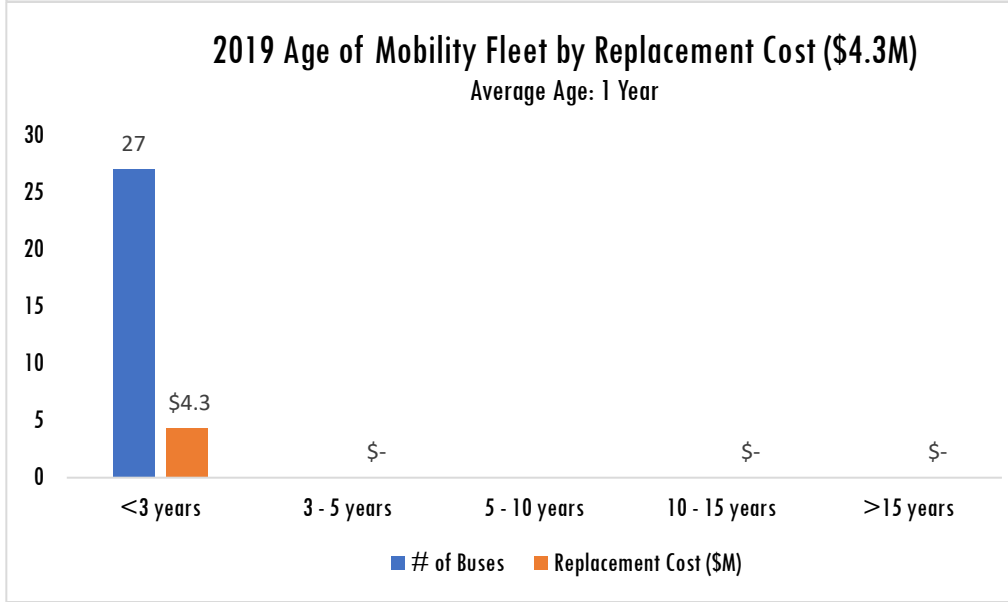
TABLE 13-9
REPLACEMENT COST PROFILE BY TYPE OF FLEET



Age Profile for Viva Buses by Replacement Cost (2019 Data)



Age Profile for Mobility-on-Request Buses by Replacement Cost (2019 Data)



13.5.3 Fleet remedial schedule and costs

Table 13-10 provides the planned fleet remedial schedule.

TABLE 13-10
FLEET CAPITAL REFRESH, REHABILITATION, AND REPLACEMENT SCHEDULE

Vehicle Type	30 ft. (years)	40 ft. (years)	60 ft. (years)	Mobility Plus (years)
Total Life	12	18	12	7 - 12
Capital Refresh	None	None	6	None
Mid-Life (Rehabilitation)	None	10	None	None

(Source: Transit AMP)

Table 13-11 shows the estimated cost of remedial activities for Transit fleet.

TABLE 13-11
COST ASSOCIATED WITH REMEDIAL ACTION

Action Type	Cost, \$000s
Capital Refresh	\$70
Mid-life Rehabilitation	\$210
Replacement/ Growth	
Conventional	\$600
Viva	\$700 - \$1,200
Mobility Plus	\$260

(Source: Transit AMP)

13.5.4 Average Sustainment Requirements

Figures 13-4 and 13-5 provide the estimated Transit average annual sustainment needs (excluding maintenance) for fleet and facilities for 2022 to 2041 as $(\$37.5M + \$7.8M) = \$45.3M$.

FIGURE 13-4
ANTICIPATED FLEET SUSTAINMENT NEEDS

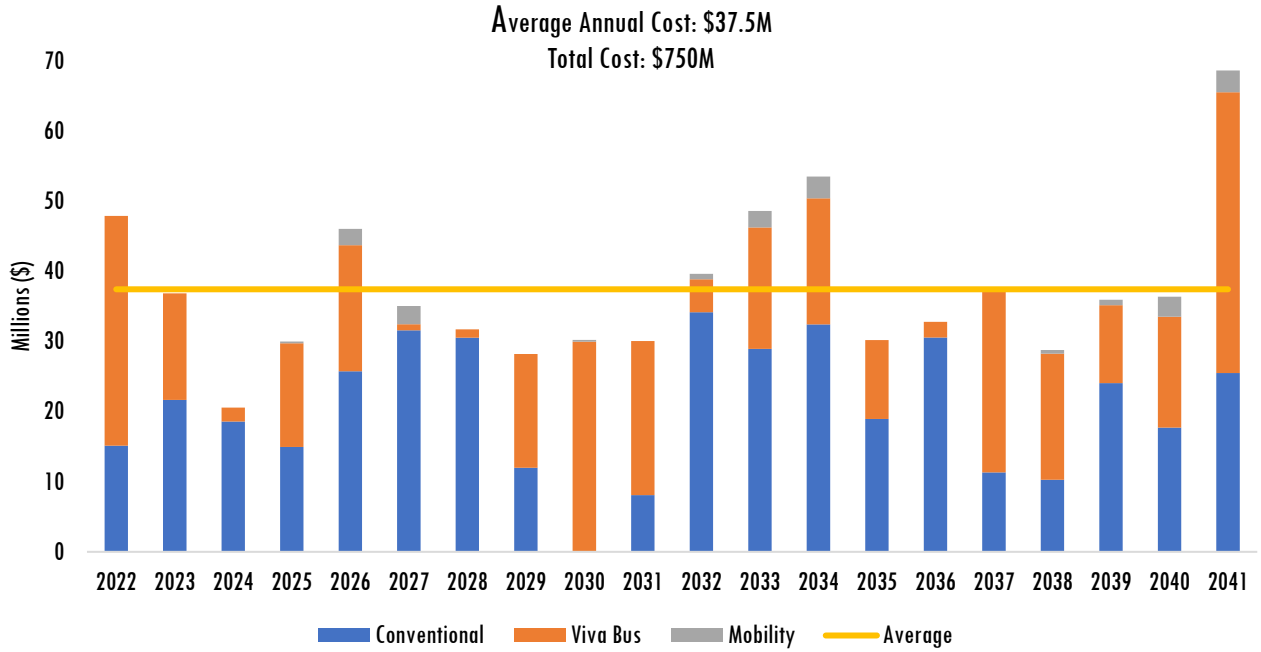
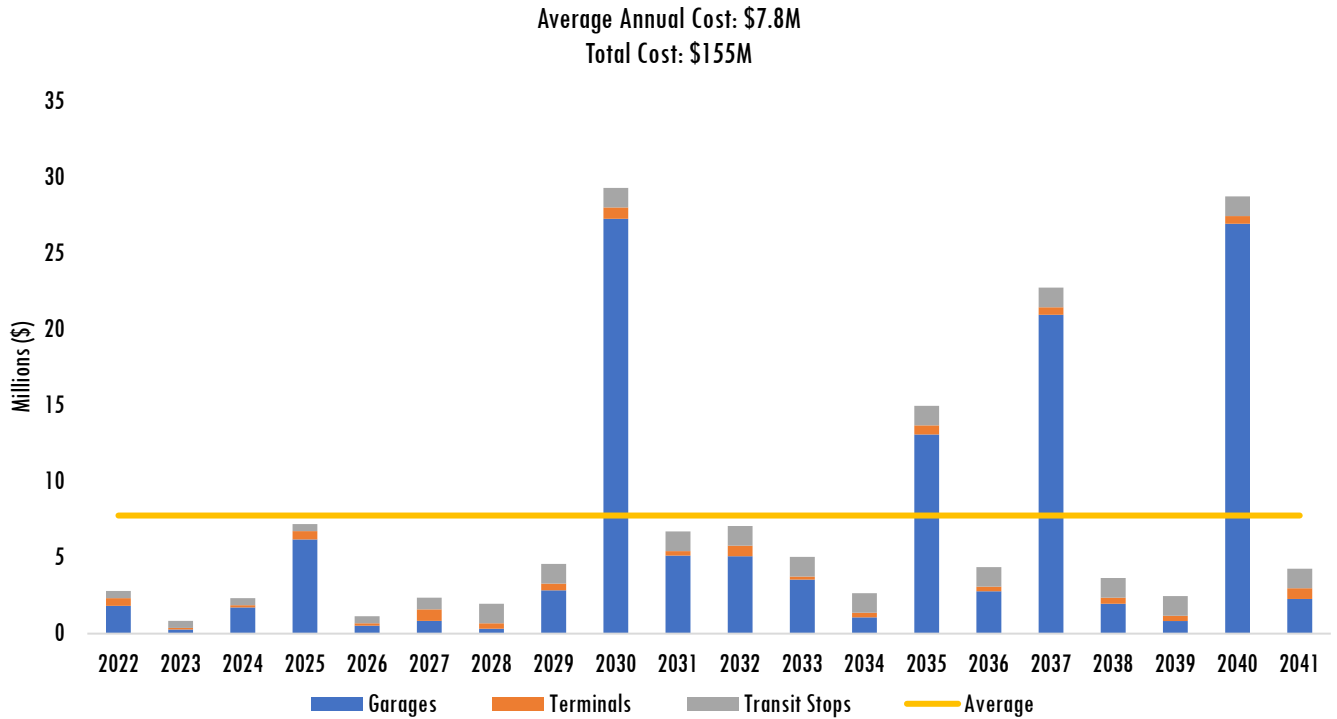


FIGURE 13-5
ANTICIPATED FACILITIES SUSTAINMENT NEEDS



Based on the Transit Business Plan, Transportation Master Plan and Transit AMP, the average annual growth needs for fleet and facilities for 2022 to 2041 is $(\$12.2M + \$10.6M) = \$22.8M$ as indicated in Figures 13-6 and 13-7, below.

FIGURE 13-6
ANTICIPATED FLEET GROWTH NEED

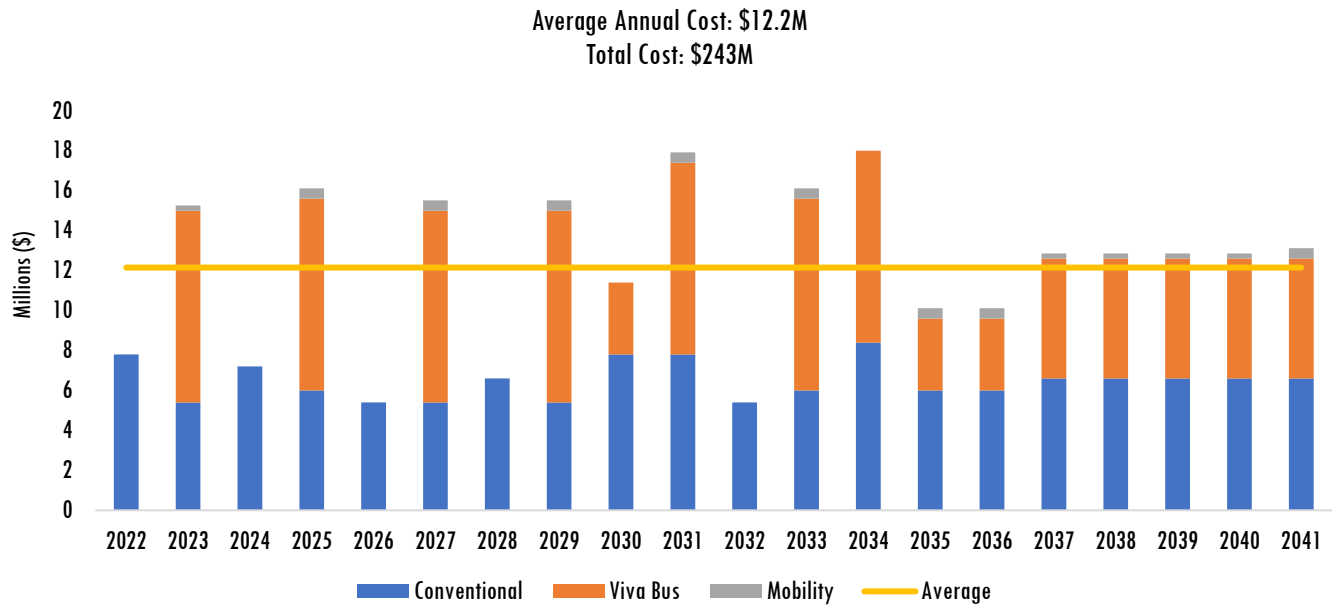
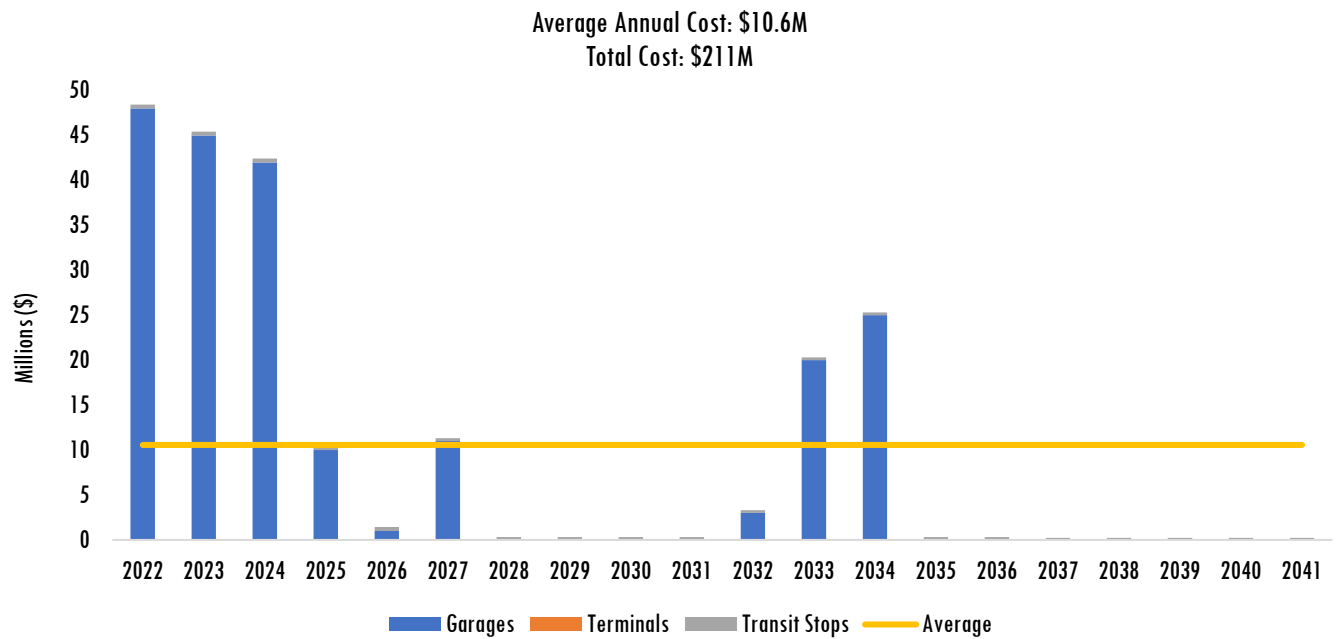
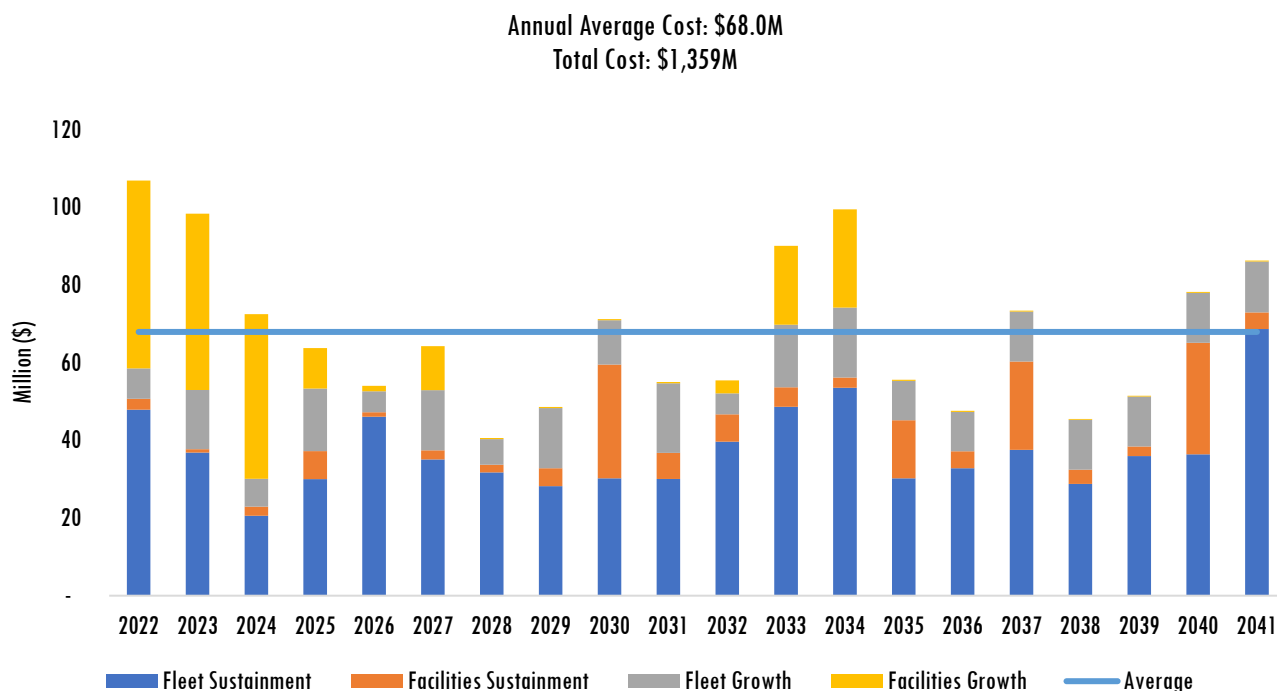


FIGURE 13-7
ANTICIPATED FACILITIES GROWTH NEEDS



Based on the Transit Business Plan, Transportation Master Plan, and Transit AMP, average annual sustainment and growth needs for fleet and facilities for 2022 to 2041 is \$68.0M as indicated in Figure 13-8 below.

FIGURE 13-8
INTEGRATED NEEDS FOR FLEET AND FACILITIES



13.5.5 Transit Asset Management Overview

For transit vehicles, maintenance is managed through third party maintenance contracts. These performance-based contracts help incentivize the contractors to maintain appropriate levels of service. The service contract defines criteria in which the thirdparty has to follow outlined preventative maintenance, routine maintenance, and proactive maintenance requirements. These allow the Region to better benchmark andevaluate its current state.

Rehabilitation, defined as remedial actions that increase the life of the asset, is generally considered a capital expenditure. Remedial actions can increase the asset life by increasing its useful life as a whole or by installing new components to stretch out the useful life of the asset.

The purpose of replacement is to acquire an asset to substitute a current asset because the asset is at its end of life. This may slightly increase capacity and condition because of technological improvement reasons. However, the main purpose is to replace the asset due to age.

For transit fleet, the capital budget also includes capital refresh as part of sustainment in addition to rehabilitation and replacement. Although capital refresh may not extend the life of the asset beyond its design life it is part of capital expenses.

Regional Council has endorsed a Transit Bus Fleet Electrification plan, including transition of the Region's bus fleet to clean electric bus technology by the Region's target of 2051. The endorsed plan is a phased approach to electrification with a mix of electric and diesel buses being purchased between 2021 and 2029, transitioning to exclusive purchase of electric buses by 2030.

For transit fleet, York Region proactively performs midlife overhauls. Buses purchased by York Region Transit have a design life of 12 years as specified by the original equipment manufacturer. The midlife overhaul extends the life of a normal vehicle from 12 to 18 years, as required by Regional Council. Additionally, a major overhaul of the mechanical systems is conducted, including engine, transmission, radiator, charge air cooler and drive axle assessment, brake relining, suspension replacement, and auxiliary heater and air conditioning refresh.

For more details, please refer to the Transportation Asset Management Plan.

13.6 Financial Strategy

A detailed analysis was undertaken to evaluate the financial sustainability of the full life cycle costs of assets that are proposed to be funded under the development charges by-law, per Subsection 10(3) of the Act.

Financial sustainability is defined, based on the Region's Fiscal Strategy, as:

1. Balancing the current and long-term needs of the Region by:
 - Managing the capital plan, which sets priorities among infrastructure projects
 - Reducing reliance on debt
 - Saving for the future by building up reserves
2. Generating stable and adequate financing to maintain Regional infrastructure and operational capacity to provide core services
 - Stable and adequate financing will rely on revenue sources available or confirmed at the time, without relying on additional support from higher levels of government
3. Aiming for equitable outcomes by ensuring benefiting users pay for the services they are provided (e.g., growth pays for growth; the principle of inter-generational equity)

To fully assess the financial impact of the projects in the Region's proposed 2022 Development Charges Bylaw, it is necessary to consider all of the financial requirements that the Region will likely face in the future.

The financial analysis incorporates the full operating and capital requirements related to both existing and future assets, as well as service areas without capital plans (e.g., Office of the Regional Chair). Consistent with the Region's Fiscal Strategy, the analysis assumes that capital reserves will be built up adequately to avoid the use of future user rate or tax levy debt for any foreseen asset lifecycle needs, including growth related capital. It also takes inter-generational equity into account by attempting to spread the cost of capital equitably across the tax/user rate base over time.

Asset management and lifecycle assumptions were derived from service area asset management plans. To facilitate analysis of assets yet to be emplaced, life-cycle costs have been estimated based on the estimated useful life provided by the Region's tangible capital asset guideline. It is acknowledged that these assets might be further componentized into smaller asset elements as they come on-line but since they are similar to assets currently in use, the estimated useful life is deemed to be a reasonable proxy.

Water and wastewater infrastructure lifecycle costs are funded through water and wastewater rates while all other infrastructure is funded primarily through the tax levy. As such, the Region's analysis looks at services funded through water and wastewater user rates separately from all tax-supported services.

13.6.1 Rate Funded (Water and Wastewater)

In September 2021, Regional Council approved six years of water and wastewater rate increases with the goal of achieving and maintaining full cost recovery. Water and wastewater rate-setting is guided by goals and principles that recognize the importance of both operational excellence and long-term financial sustainability.

For financial sustainability, the goal is to set prices that cover the full cost of providing services, a goal to which York Region has been committed for more than a decade. Full costs include both day-to-day operating expenses and contributions to reserves to cover current and future rehabilitation and replacement costs.

The approved rate increases ensure that asset management activities can be afforded when they are required to minimize lifecycle costs and that there will be adequate reserve balances to avoid any future user rate debt. A description of the work that supported Council's 2021 rate approval can be found in the [Water and Wastewater Financial Sustainability Plan](#).

Tables 13-12 and 13-13 summarize the capital funding and additional (incremental) operating expenses and revenue for the growth-related infrastructure identified in the 2022 DC Background Study. Operating expenditures include provisions for the emplacement of infrastructure and contributions to the replacement of new and existing assets to reflect their impact on billings.

TABLE 13-12
CAPITAL FUNDING SOURCES FOR RATE SUPPORTED GROWTH PROJECTS 2022-2041:
COST OF EMPLACEMENT

Funding Sources (\$000s)	Total	2022-2026	2027-2031	2032-2036	2037-2041
User Rate Funding (Reserves)	40,439	56	3,785	29,851	6,747
Development Charges	2,742,253	647,820	796,715	651,939	645,779
Other Funding	282,761	122,737	74,258	30,773	54,993
Total	3,065,453	770,613	874,758	712,563	707,519

For this table, Gross Project Costs exclude items without associated life-cycle costs, like DC credits, environmental assessments, and growth studies.

TABLE 13-13
INCREMENTAL GROWTH-RELATED OPERATING EXPENSES AND REVENUES 2022- 2041:
RATE FUNDED

Operating Impact of Growth (\$000s)	Total	2022-2026	2027-2031	2031-2036	2037-2041
Salaries and Benefits	37,009	9,081	7,688	9,039	11,201
Purchased Services	51,261	7,960	9,754	14,149	19,397
Asset Management Contributions	104,095	18,649	22,241	28,872	34,333
Growth-Related Financing Costs	(5,265)	20,508	20,356	(60,662)	14,534
Other Expenses*	12,140	3,070	3,221	1,987	3,862
Gross Expenditures	199,240	59,268	63,260	(6,614)	83,326
User Rates	(191,840)	(30,640)	(38,761)	(53,635)	(68,804)
Fees and Charges	(1,232)	(252)	(287)	(332)	(362)
DC Recovery	5,265	(20,508)	(20,356)	60,662	(14,534)
Total Revenue	(187,807)	(51,401)	(59,403)	6,696	(83,699)
Potential Billing Revenue Requirements	11,433	7,867	3,857	81	(373)

*Other Expenses include General Expenses; Professional Contracted Services; Occupancy & R&M Costs; Minor Capital; and Allocations and Capital Recoveries

Overall, the additional costs for water and wastewater services due to growth are paid for through revenues generated by growth. Over the period from 2022 to 2041, it is anticipated that growth will increase expenditures by \$199 million and increase revenue by \$188 million, resulting in a net impact of \$11 million on the existing user base over 20 years. The water and wastewater projects in the DC Background Study are similar to those that informed the [Water and Wastewater Financial Sustainability Plan](#). The operating projections are based on the anticipated revenues generated by the rates approved by Council, and are deemed to be financially sustainable.

13.6.2 Tax-Levy Funded

A similar methodology (as used in the water and wastewater analysis) was also applied to services funded by property taxes.

Tables 13-14 and 13-15 summarize the capital funding and additional (incremental) operating revenues and expenses related to growth projects on the main list of the 2022 DC Background Study. Similar to the user rate analysis, the incremental operating requirements calculated here include operating costs resulting from the emplacement of infrastructure and contributions to the replacement of new and existing assets.

TABLE 13-14

CAPITAL FUNDING SOURCES FOR TAX-LEVY-SUPPORTED GROWTH PROJECTS ON THE MAIN LIST OF THE 2022 DC BACKGROUND STUDY 2022-2041: COST OF EMPLACEMENT

Funding Sources (\$000s)	Total	2022-2026	2027-2031	2032-2036	2037-2041
Tax Levy Funding (Reserves)	3,468,908	814,178	1,021,226	789,810	843,695
Development Charges	6,458,795	1,536,076	2,084,536	1,350,270	1,487,913
Other Funding	2,627,615	468,006	1,025,589	538,735	595,285
Total	12,555,318	2,818,260	4,131,350	2,678,816	2,926,893

TABLE 13-15
CAPITAL FUNDING SOURCES FOR TAX-LEVY-SUPPORTED GROWTH PROJECTS ON THE
CONTINGENCIES LIST OF THE 2022 DC BACKGROUND STUDY 2022-2041:
COST OF EMPLACEMENT

Funding Sources (\$000s)	Total	2022-2026	2027-2031	2032-2036	2037-2041
Tax Levy Funding (Reserves)	44,092	-	-	20,852	23,240
Development Charges	753,764	-	-	356,471	397,293
Other Funding	809,460	-	-	382,811	426,649
Total	1,607,316	-	-	760,134	847,182

As shown in Table 13-16, the incremental increase in operating expenditures created by growth total nearly \$1.2 billion over the 20-year projection period, with operating revenue expected to rise by \$387 million. Forecasted assessment growth revenue of \$392 million is projected to offset more than half of the resulting net expenditure increase on taxpayers. As a result, about \$395 million of the increase is forecast to be recovered from the tax base over the 20-year forecast period. This funding requirement is considered financially sustainable as it is expected that it can be reasonably absorbed by the tax base over the forecast period.

TABLE 13-16**INCREMENTAL GROWTH-RELATED OPERATING REVENUES AND EXPENSES FOR THE MAIN LIST OF THE 2022 DC BACKGROUND STUDY 2022-2041: TAX LEVY FUNDED***

Total over period (\$000s)	Total	2022-2026	2027-2031	2032-2036	2037-2041
Salaries and Benefits	495,136	79,837	104,801	138,069	172,430
Program Specific Expenses	190,181	30,925	42,426	56,310	60,520
Asset management contributions	260,330	47,983	55,002	74,042	83,303
Growth-related capital reserve contributions	33,620	13,881	11,846	5,075	2,818
Other costs**	195,769	33,044	41,835	56,351	64,539
Gross Expenditures	1,175,037	205,669	255,911	329,847	383,610
Grants and Subsidies	(282,368)	(50,999)	(64,462)	(79,272)	(87,635)
User fees	(61,922)	(6,696)	(11,521)	(18,224)	(25,480)
Other Revenues***	(43,089)	(8,515)	(10,696)	(11,912)	(11,966)
Total Revenue	(387,379)	(66,211)	(86,680)	(109,409)	(125,080)
Net Expenditure Before Assessment Growth	787,657	139,459	169,231	220,438	258,529
Assessment Growth Revenue	(392,200)	(89,900)	(101,000)	(104,500)	(96,800)
Potential Net Expenditure after Assessment Growth Revenue	395,457	45,559	68,231	115,938	161,729

* Excludes the impact of growth on development charges and the debt-related payments they fund. The net impact of these two items on net expenditures is expected to be zero.

**Other Expenses include General Expenses, Chair & Council Expenses, Minor Capital, Professional Contracted Services, Occupancy and R&M costs, Contribution to non-capital reserves, Insurance, Departmental Recoveries.

***Other Revenues include Contributions from reserves, Fine Revenue, Fees and Charges, and Third-Party Recoveries.

The results of this analysis reflect the best information available at this time and are based on a number of critical assumptions, which carry an inherent degree of uncertainty. Among these include assumptions around ongoing costs for projects like the YNSE, where project details have not been finalized. However, detailed analysis will continue through the annual budget process to confirm required levels of spending, mitigate tax rate impacts and employ other funding mechanisms, where possible, consistent with the Region's Fiscal Strategy. For example, revising service levels, asset management, and/or financing strategies could contribute to alleviating the funding need.

13.7 Transit Services

The Act supported by O.Reg. 82/98 prescribes specific requirements for Transit services. One of the requirements is a detailed financial strategy that:

- Shows the yearly expenditure forecasts that would achieve the proposed level of service, categorized by,
 - A. Non-infrastructure solutions
 - B. Maintenance activities
 - C. Renewal and rehabilitation activities
 - D. Replacement activities
 - E. Disposal activities
 - F. Expansion activities
- Provides actual expenditures in respect of the categories set out above from the previous two years, if available, for comparison purposes,
- Gives a breakdown of yearly revenues by source,
- Discusses key assumptions and alternative scenarios where appropriate, and
- Identifies any funding shortfall relative to financial requirements that cannot be eliminated by revising service levels, asset management or financing strategies, and discusses the impact of the shortfall and how the impact will be managed.

Tables 13-17 and 13-18 summarize the capital funding and additional (incremental) operating revenues and expenses specifically related to growth in Transit services.

TABLE 13-17
CAPITAL FUNDING SOURCES FOR GROWTH-RELATED TRANSIT PROJECTS* 2022-2041
COST OF EMPLACEMENT

Funding Sources (\$000s)	Total	2022-2026	2027-2031	2032-2036	2037-2041
Tax Levy Funding (Reserves)	141,479	17,032	124,447	-	-
Development Charges	560,214	67,441	492,773	-	-
Other Funding	595,440	71,681	523,758	-	-
Total	1,297,133	156,153	1,140,979	-	-

*Growth Related Transit Projects includes Bus Rapid Transit projects that fall in the Transit service area.

TABLE 13-18
INCREMENTAL GROWTH-RELATED OPERATING REVENUES AND EXPENSES 2022-2041:
TRANSIT SERVICES*

Total over period (\$000s)	Total	2022-2026	2027-2031	2032-2036	2037-2041
Maintenance/ Non-Infrastructure Solutions					
Salaries and Benefits	11,700	2,317	2,581	3,273	3,529
Program Specific Expenses	58,969	12,338	13,230	16,345	17,057
Other Expenses**	44,761	8,855	9,867	12,586	13,453
Renewal/ Rehabilitation & Replacement/ Disposal Activities					
Asset Management Contributions	73,318	13,514	15,491	20,853	23,461
Expansion Activities					
Growth-Related Capital Reserve Contributions	11,555	4,771	4,072	1,744	969
Gross Expenditures	200,304	41,794	45,239	54,801	58,468
User Rates	(67,720)	(12,508)	(11,517)	(18,220)	(25,475)
Other Revenues***	(5,092)	(2,274)	(1,032)	(990)	(796)
Total Revenue	(72,812)	(14,782)	(12,549)	(19,209)	(26,271)

* Excludes the impact of growth on development charges and the debt-related payments they fund. The net impact of these two items on net expenditures is expected to be zero.

** Other Expenses include General Expenses, Minor Capital, Professional Contracted Services, Occupancy and R&M costs, Contribution to non-capital reserves, Insurance, Departmental Recoveries

*** Other Revenues include contributions from reserves, fees and charges, and third-party recoveries

As shown in Table 13-18, growth in Transit services is projected to increase expenses by about \$200 million by the end of 2041, while user rates (transit fares) and other revenue sources would increase by \$73 million. The remainder would need to be collected through other sources, like property taxes. As noted in the aggregate financial analysis discussed in Section 13.6.2, this funding requirement is considered financially sustainable as it is expected that it can be absorbed by the tax base over the forecast period through tax levy increases.

Alternatively, revising service levels, asset management, and/or financing strategies could contribute to alleviating the funding need. These alternatives will be examined in detail through the annual budget process.

13.8 Conclusion

York Region has provided the required information specific to asset management to meet the requirements as outlined in the Act supported by [O.Reg. 82/98](#).

York Region has undertaken asset management planning analysis to ensure that assets required to enable growth to 2041 are financially sustainable as demonstrated in section 13.6 Financial Strategy.

Appendix A: Interjurisdictional Scan

INTERJURISDICTIONAL SCAN OF DEVELOPMENT CHARGES RATES

This Appendix is split into two parts:

Part I provides an interjurisdictional scan of development charges rates in neighboring municipalities (as of February 2, 2022). It compares, across municipalities:

- Residential development charges rates (single and semi-detached dwellings, rows/multiple unit dwellings, large apartments and small apartments)
- Non-residential development charges rates (retail, office and industrial)

York Region rates are as proposed under the 2022 Development Charges Bylaw.

Figure A-1 provides a comparison of **total** development charges rates for all Greater Toronto Area municipalities per single detached dwelling as of February 2, 2022

Figure A-2 provides a comparison of **total** development charges rates for all Greater Toronto Area municipalities per rows/multiples as of February 2, 2022.

Figure A-3 provides a comparison of **total** development charges rates for all Greater Toronto Area municipalities per large apartments as of February 2, 2022.

Figure A-4 provides a comparison of **total** development charges rates for all Greater Toronto Area municipalities per small apartments as of February 2, 2022.

Figure A-5 provides a comparison of **total** development charges rates for all Greater Toronto Area municipalities per square foot for retail developments as of February 2, 2022.

Figure A-6 provides a comparison of **total** development charges rates for all Greater Toronto Area municipalities per square foot for industrial developments as of February 2, 2022.

Figure A-7 provides a comparison of **total** development charges rates for all Greater Toronto Area municipalities per square foot for office developments as of February 2, 2022.

Part II provides an interjurisdictional scan of development charges rates in Barrie and Simcoe County (as of February 2, 2022). It compares, across municipalities:

- Residential development charges rates (single and semi-detached dwellings, rows/multiple unit dwellings, large apartments and small apartments)
- Non-residential development charges rates (retail, office and industrial)

York Region rates are as proposed under the 2022 Development Charges Bylaw.

Figure A-8 provides a comparison of **total** development charges rates for Barrie and all Simcoe County municipalities per single detached dwelling as of February 2, 2022.

Figure A-9 provides a comparison of **total** development charges rates for Barrie and all Simcoe County municipalities per rows/multiples as of February 2, 2022.

Figure A-10 provides a comparison of **total** development charges rates for Barrie and all Simcoe County municipalities per large apartments as of February 2, 2022.

Figure A-11 provides a comparison of **total** development charges rates for Barrie and all Simcoe County per small apartments as of February 2, 2022.

Figure A-12 provides a comparison of **total** development charges rates for Barrie and all Simcoe County municipalities per square foot for retail developments as of February 2, 2022.

Figure A-13 provides a comparison of **total** development charges rates for Barrie and all Simcoe County per square foot for industrial developments as of February 2, 2022.

Figure A-14 provides a comparison of **total** development charges rates for Barrie and all Simcoe County municipalities per square foot for office developments as of February 2, 2022.

Figure A-1

Development Charges per Single or Semi-Detached Dwelling
for Greater Toronto Area Municipalities with Proposed York Region Rates

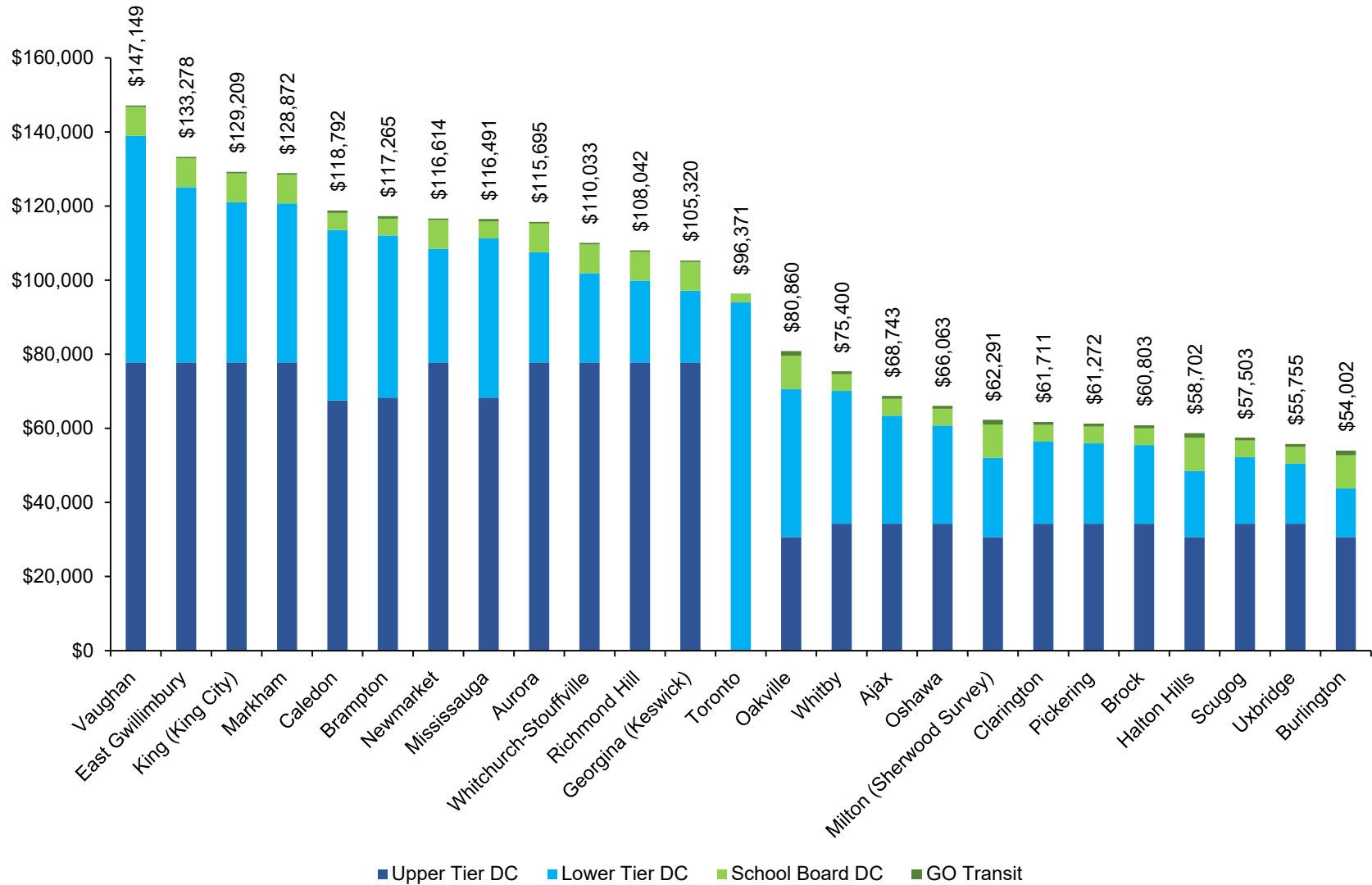


Figure A-2

**Development Charges per Multiple Unit Dwelling
for Greater Toronto Area Municipalities with Proposed York Region Rates**

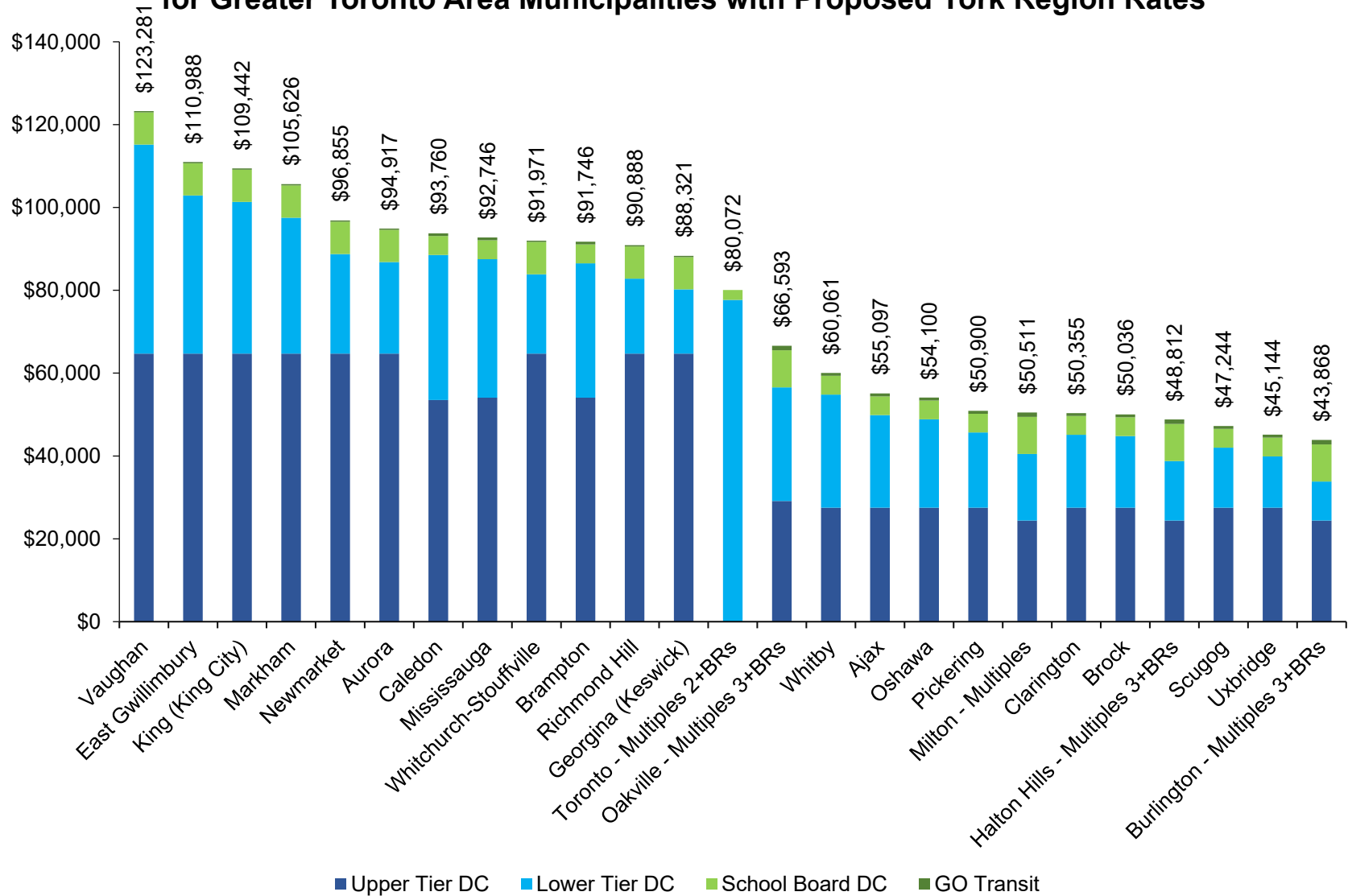


Figure A-3

**Development Charges per Large Apartments
for Greater Toronto Area Municipalities with Proposed York Region Rates**

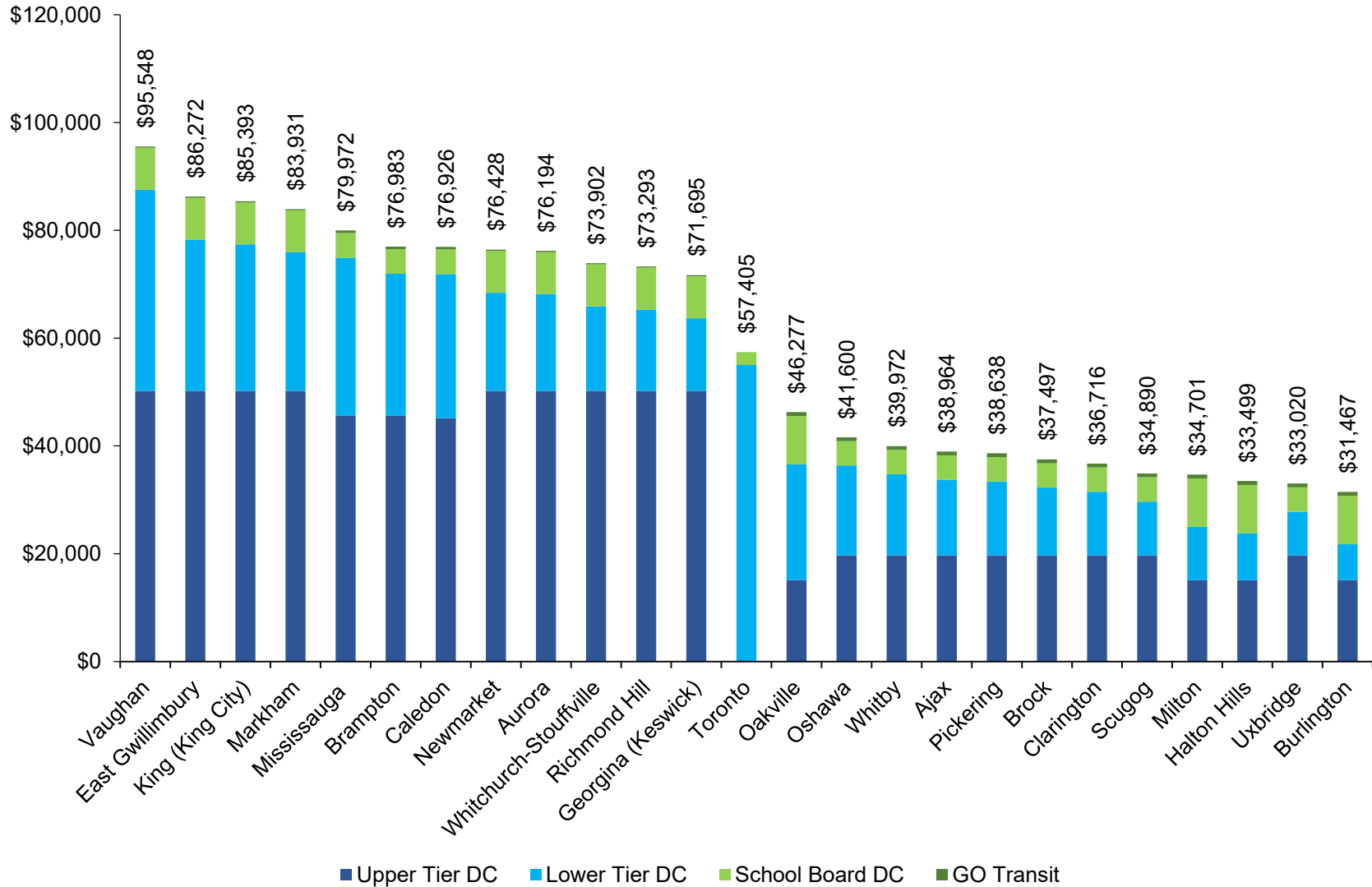


Figure A-4

Development Charges per Small Apartments For Greater Toronto Area
Municipalities with Proposed York Region Rates

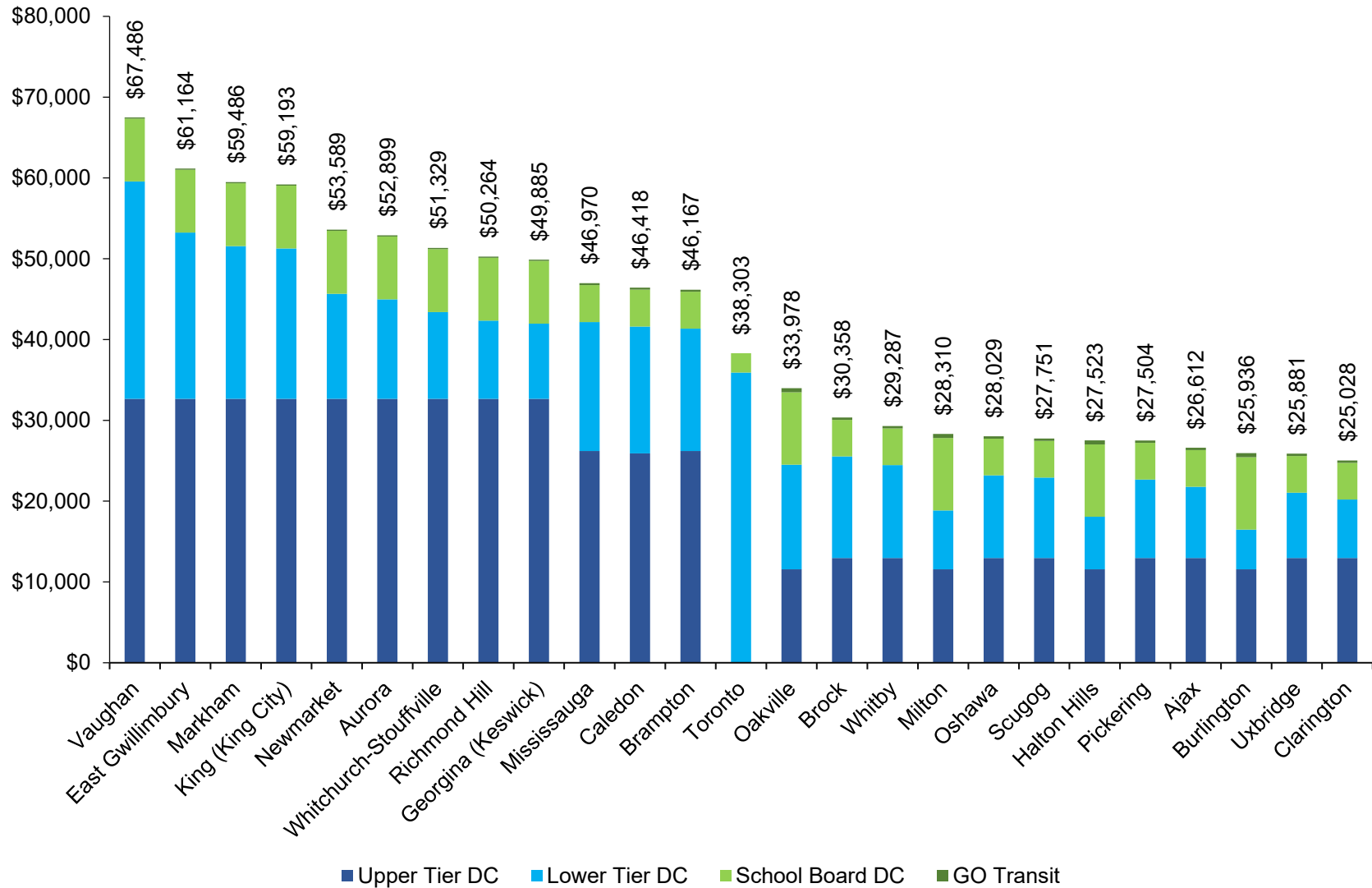


Figure A-5

**Retail Development Charges per Square Foot
for Greater Toronto Area Municipalities with Proposed York Region Rates**

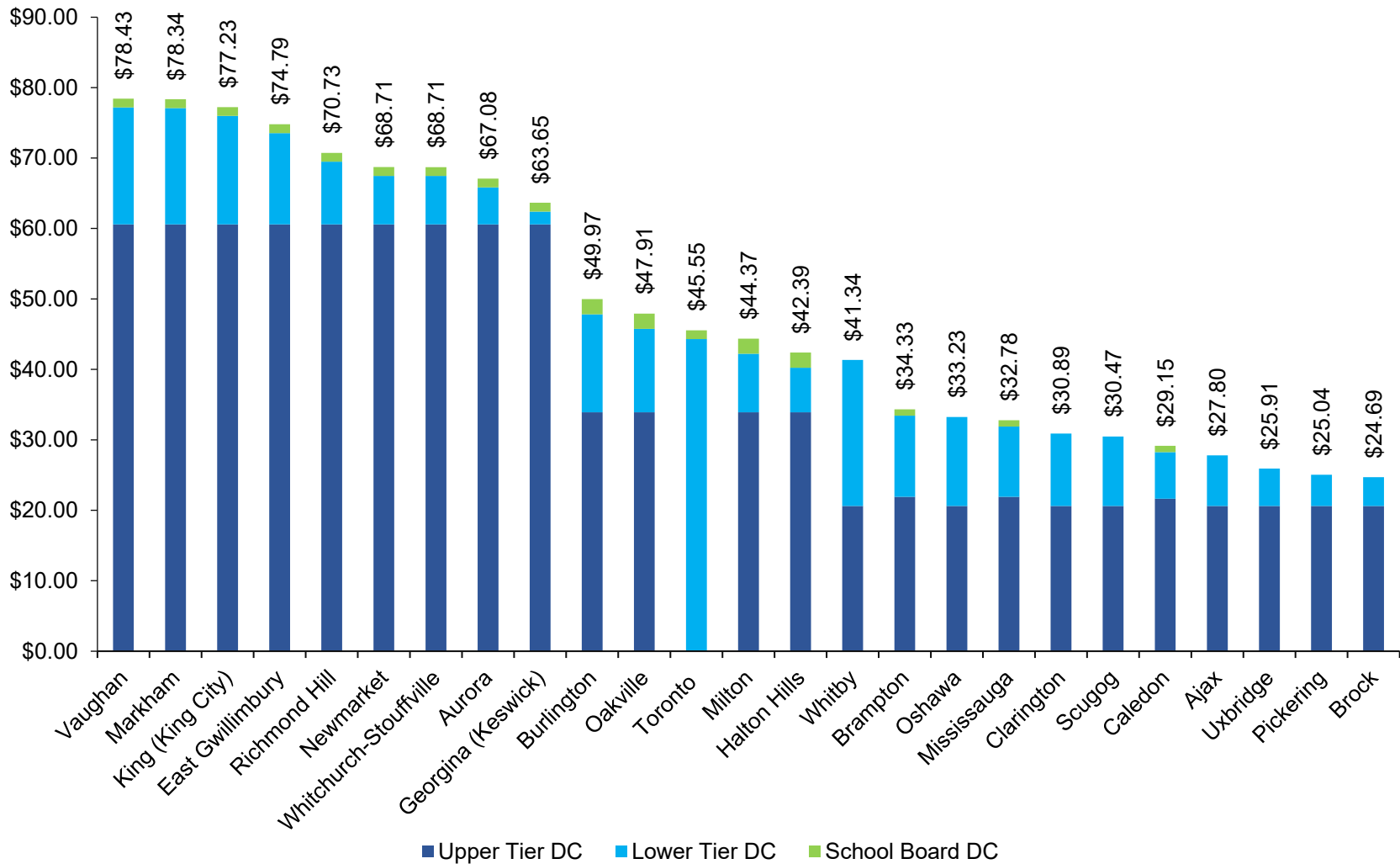


Figure A-6

**Industrial Development Charges per Square Foot
for Greater Toronto Area Municipalities with Proposed York Region Rates**

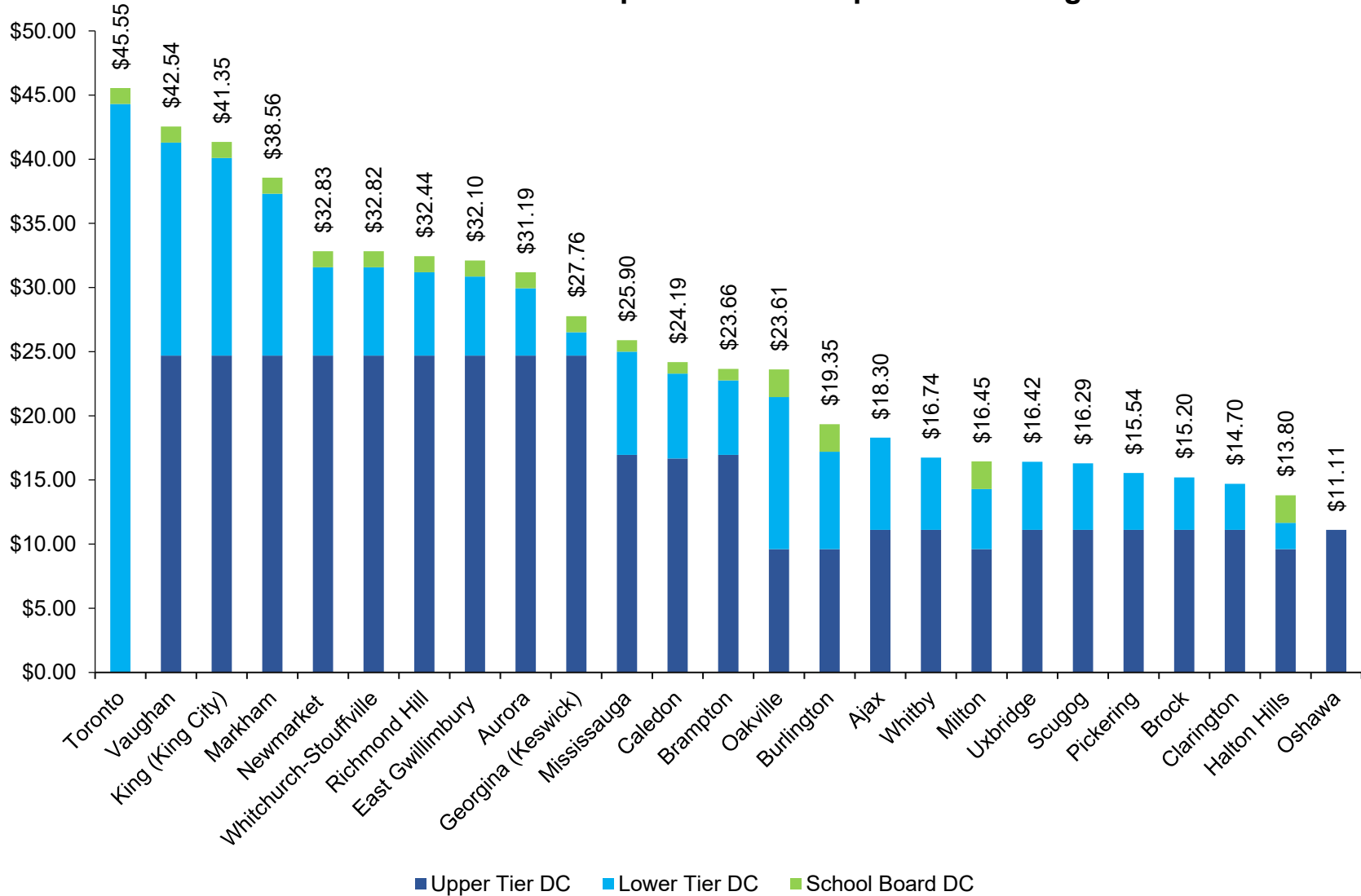


Figure A-7

Office Development Charges per Square Foot
for Greater Toronto Area Municipalities with Proposed York Region Rates

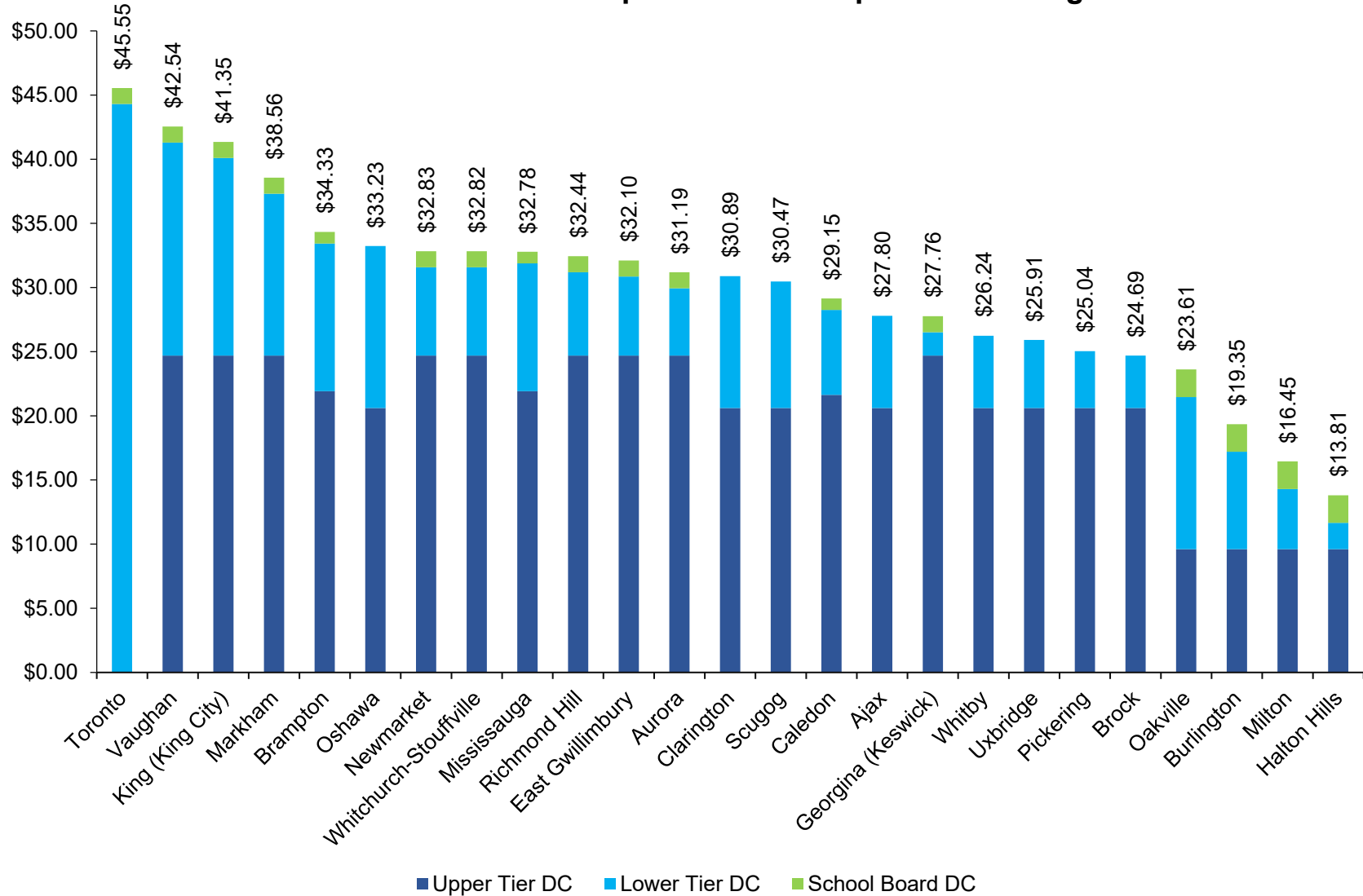


Figure A-8

Development Charges per Single and Semi-Detached Dwelling for Simcoe County and Barrie with York Region Proposed Rates

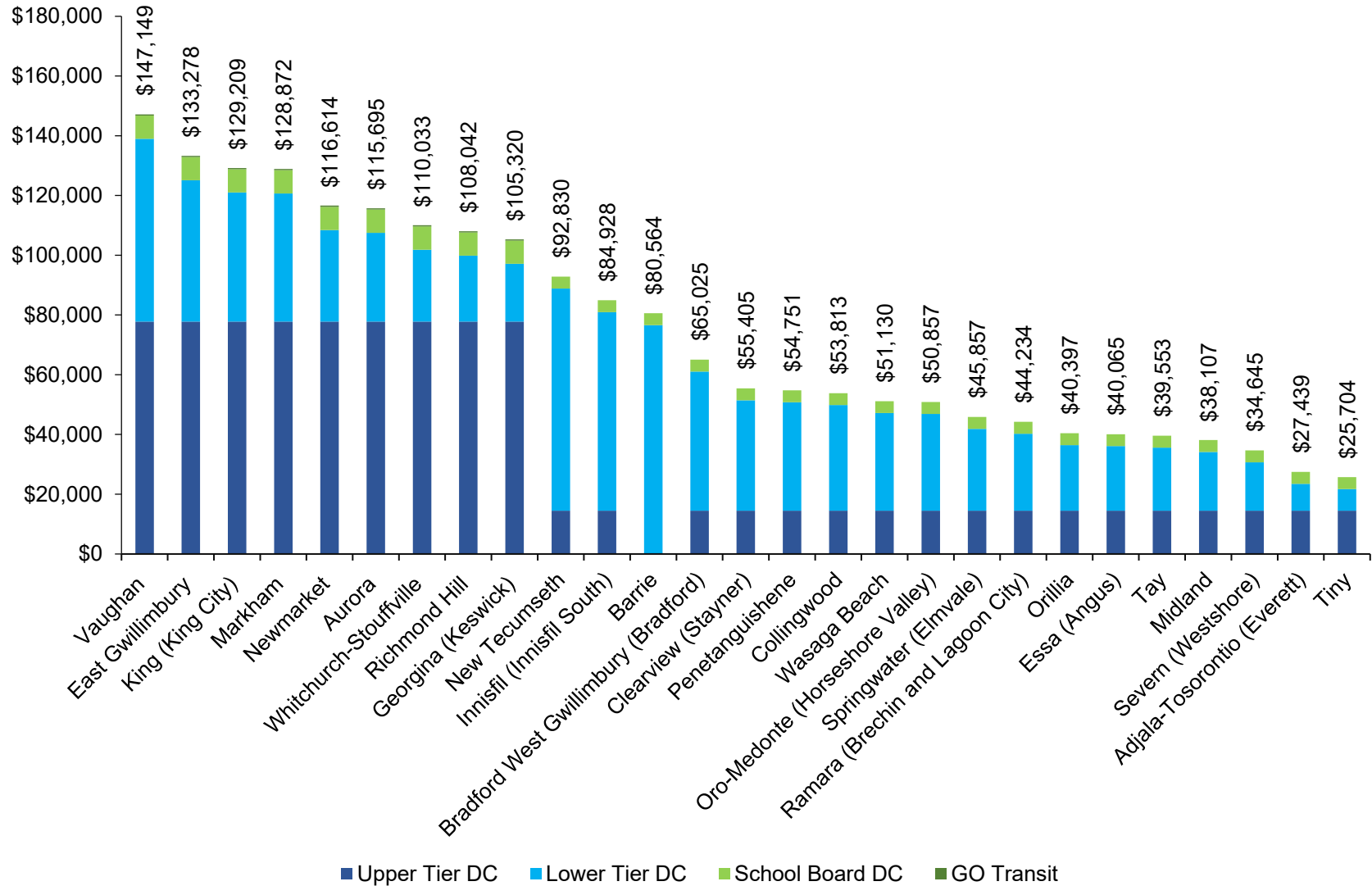


Figure A-9

Development Charges per Multiple Unit Dwelling
for Simcoe County and Barrie with York Region Proposed Rates

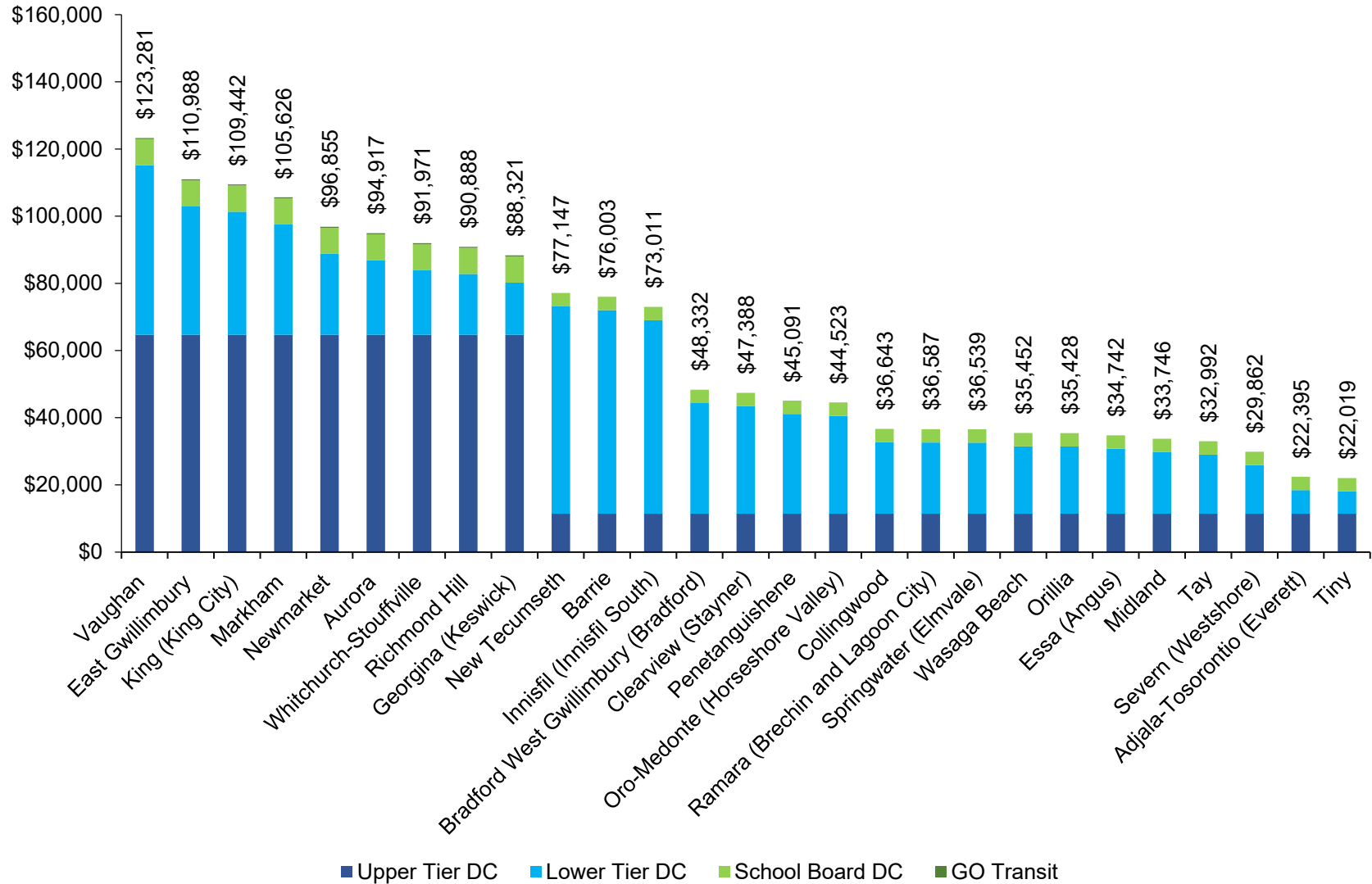


Figure A-10

Development Charges per Large Apartment
for Simcoe County and Barrie with York Region Proposed Rates

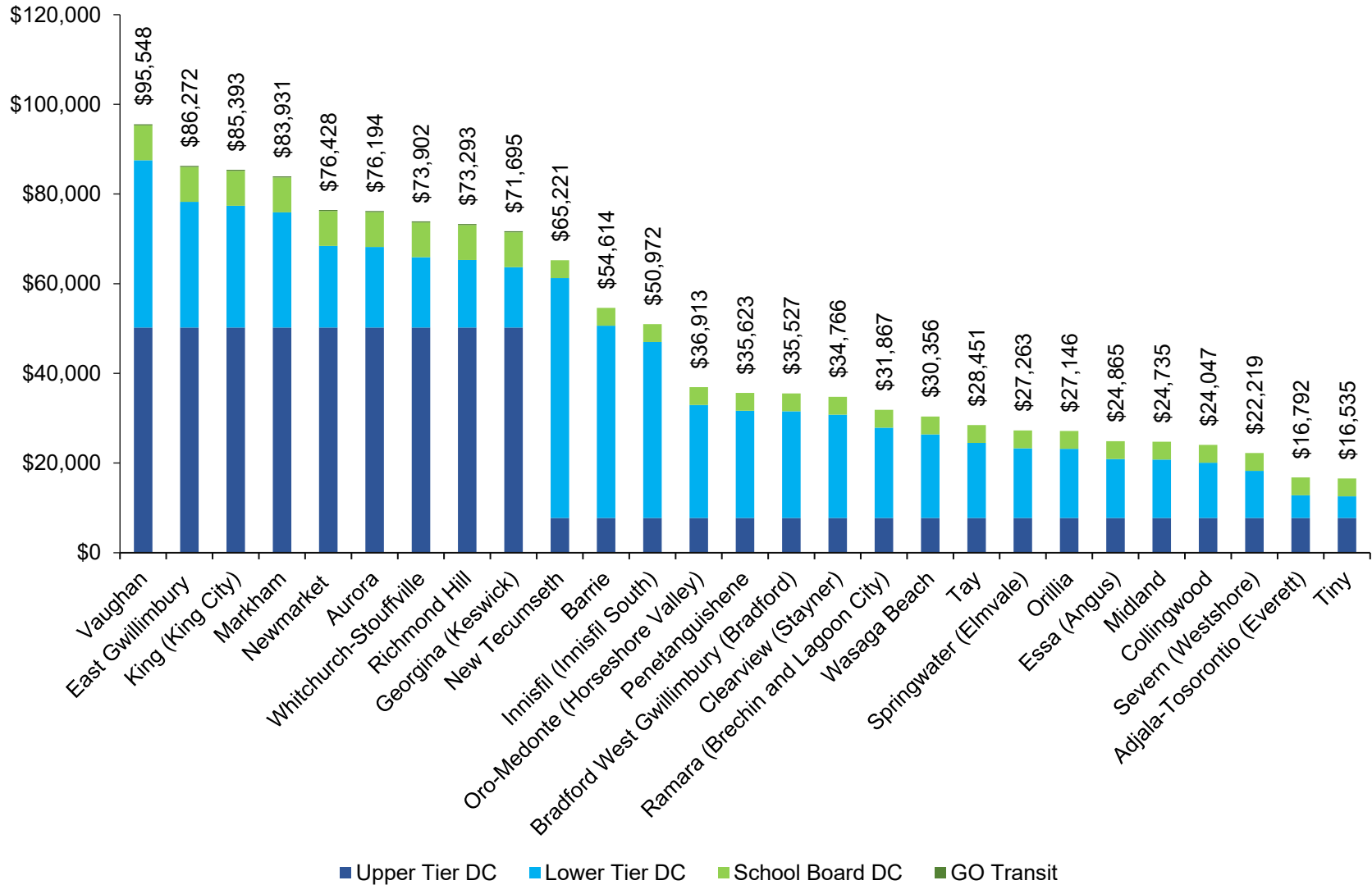


Figure A-11

Development Charges per Small Apartment
for Simcoe County and Barrie with York Region Proposed Rates

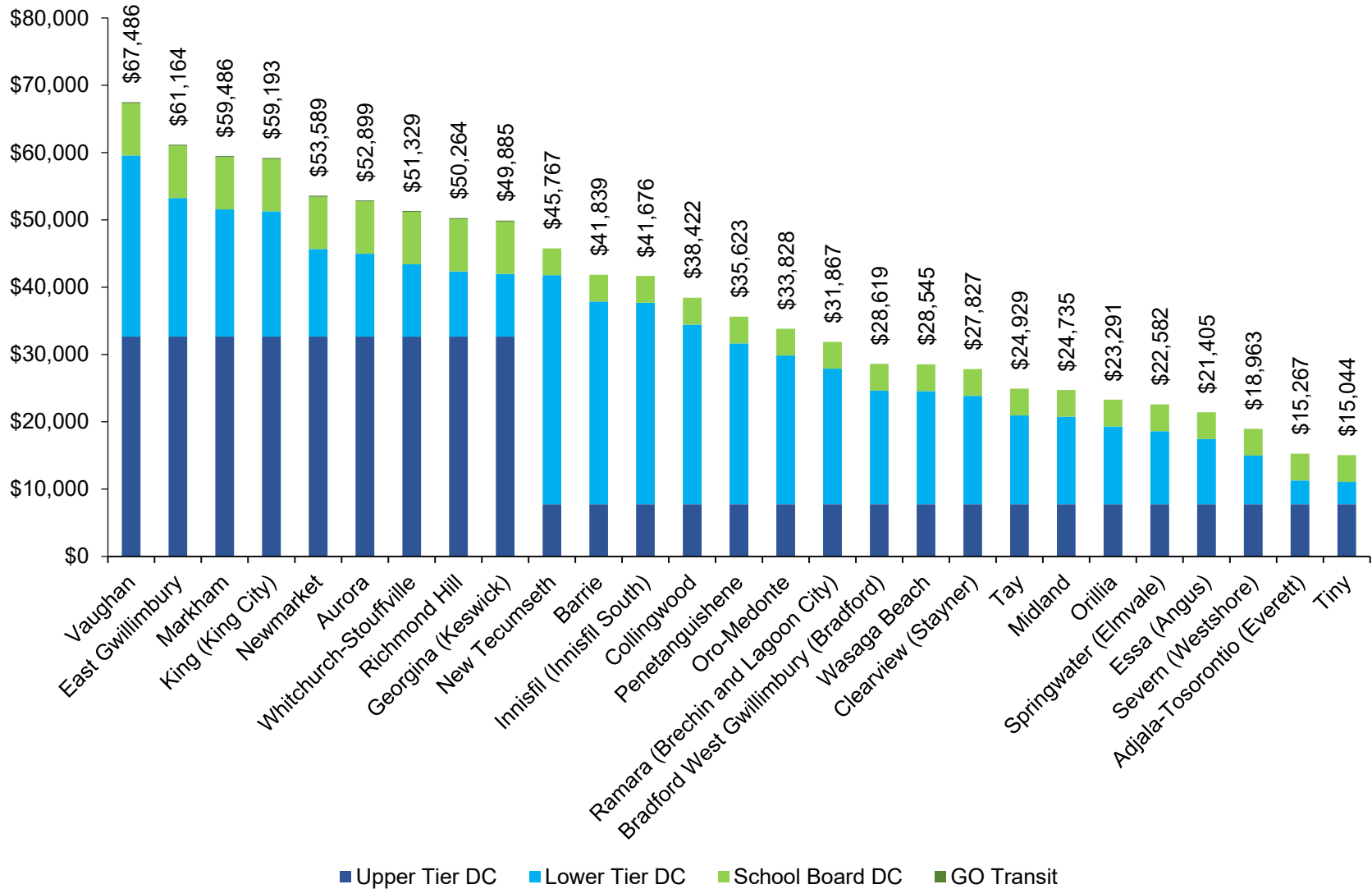


Figure A-12

**Retail Development Charges per Square Foot
for Simcoe County and Barrie with Proposed York Region Rates**

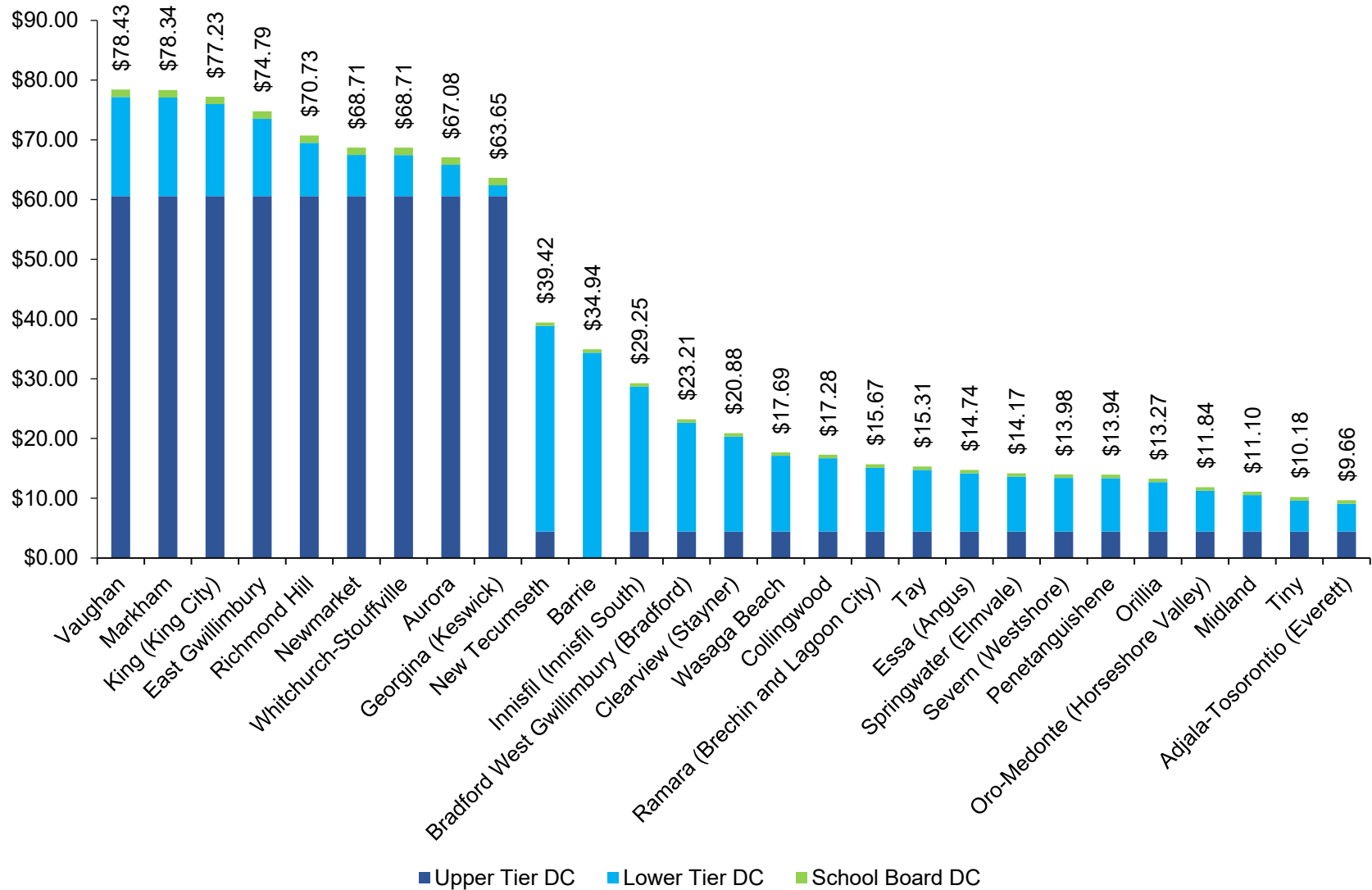


Figure A-13

**Industrial Development Charges per Square Foot
for Simcoe County and Barrie with Proposed York Region Rates**

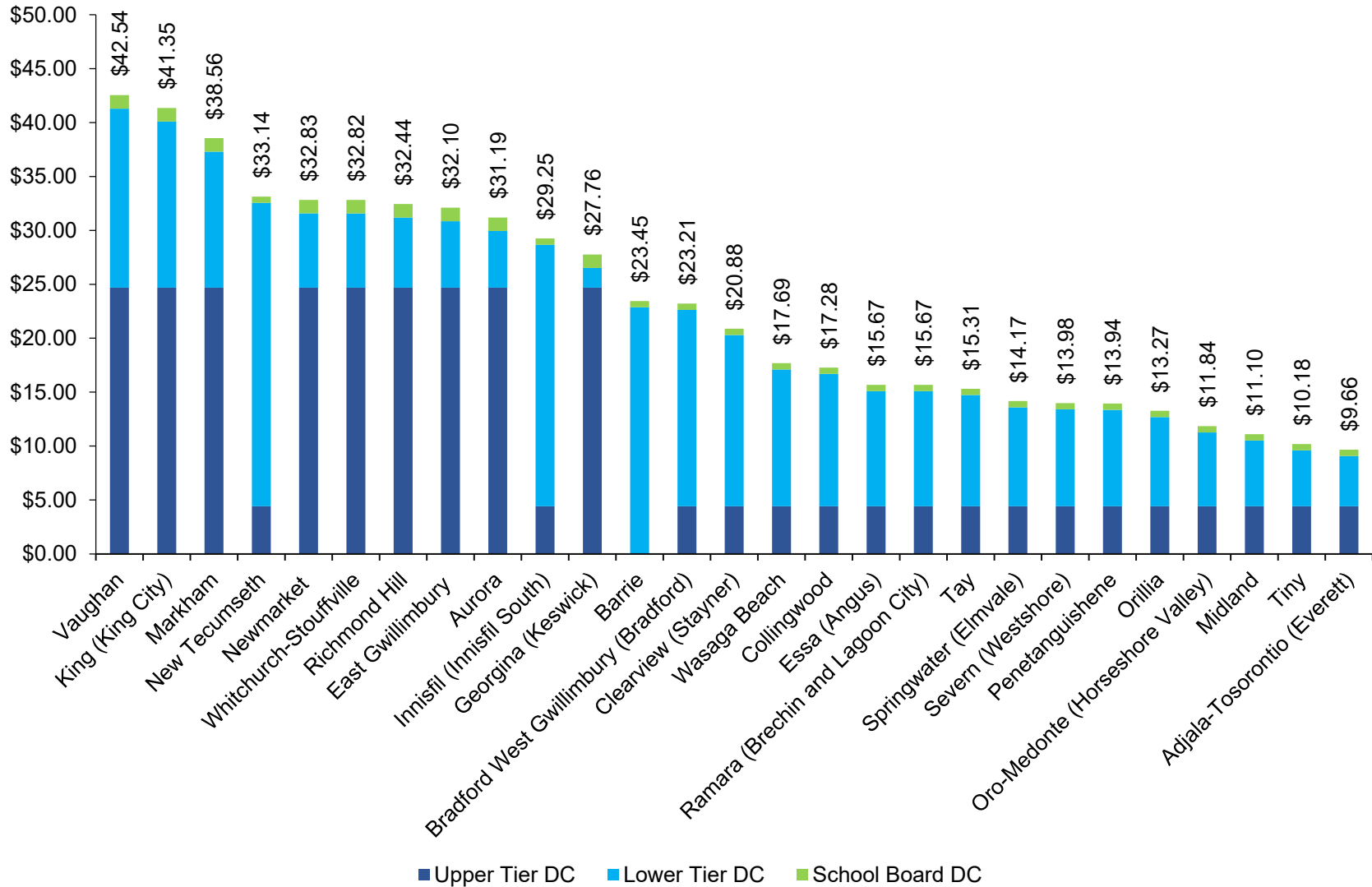
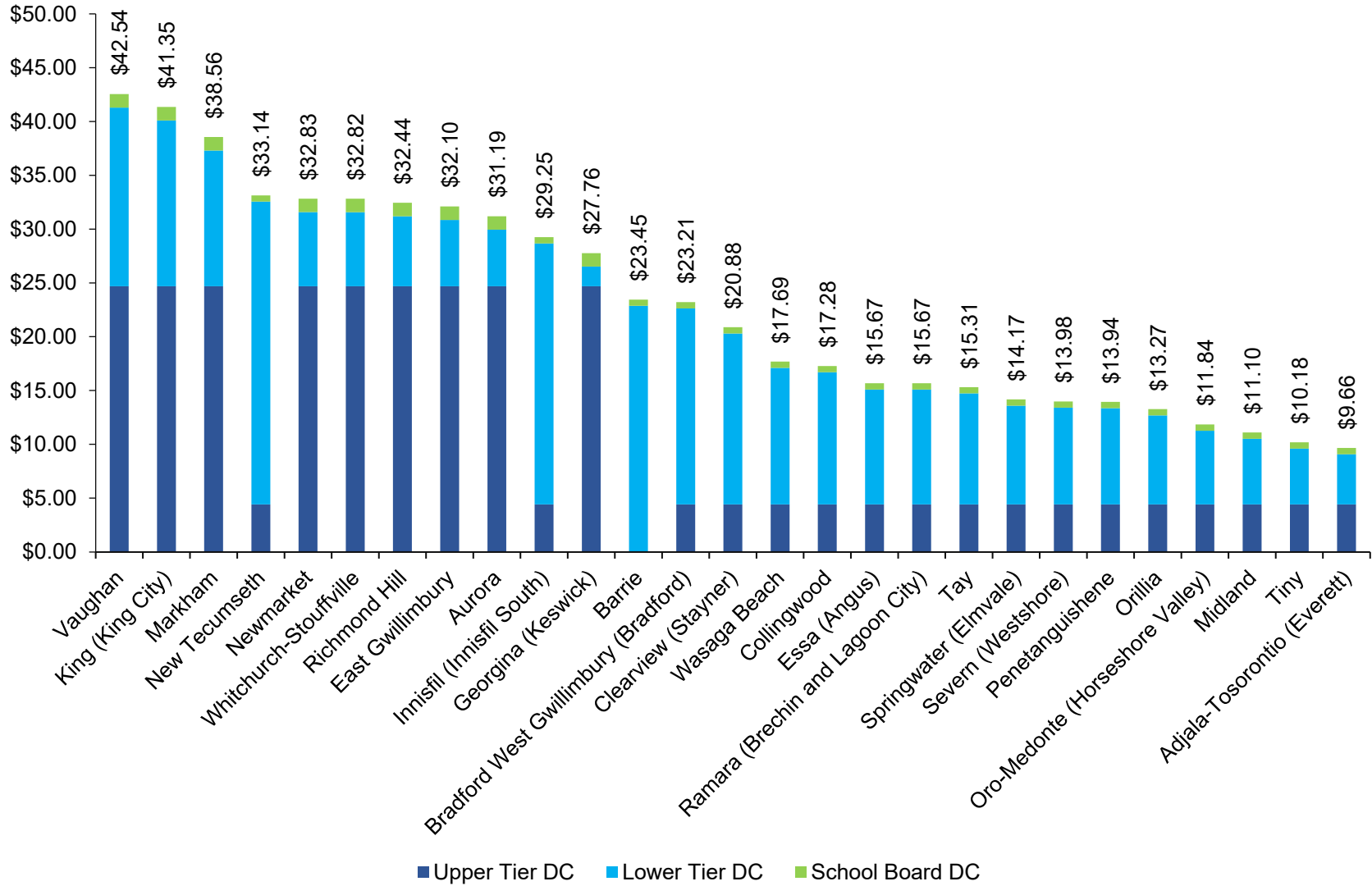


Figure A-14

Office Development Charges per Square Foot
for Simcoe County and Barrie with Proposed York Region Rates



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Appendix B:
YNSE Area-specific
development charges
options

YNSE RATE STRUCTURE CONSIDERATIONS

The following section explores options for recovering YNSE costs both on a uniform region-wide basis and on an area-specific development charge (ASDC) basis. This analysis makes up part of the consideration of the use of area rating in the Region.

Three options were considered in the recovery of growth related YNSE capital costs. The first of which is a uniform region-wide approach similar to all other services in the DC Bylaw, with the exception for wastewater, specifically the standalone wastewater system in Nobleton. The next two options deal with various levels of area-specific recoveries:

1. Uniform region-wide Rate
2. Municipalities currently serviced by the rapid transit or VIVA BRT network (Aurora, Markham, Newmarket, Richmond Hill and Vaughan) would pay for a greater share of the cost.
3. An area-specific rate for five Major Transit Station Areas (MTSAs) in addition to a Region-wide rate.

As noted in Chapter 8, and in all options considered below, the YNSE total project cost is estimated at \$5.6 billion. The Region’s share of the YNSE is estimated at \$1.12 billion, matching a 75% share of the total municipal contribution. This share is expressed as the principal cost of the subway line in this background study. Details on the BTE share can be found in subsection 8.4 of Chapter 8.

A summary of rates per Single Detached Unit (SDU) for the Council approved, uniform Region-wide rate structure, and ASDC approaches reviewed is presented in Table 1 below.

Table 1
Summary of Residential Rates

SCENARIO	RATE	REGION-WIDE	BRT SERVICED	NON-BRT	MTSAS
1. Uniform	\$/SDU	\$5,837			
	% of Uniform	100%			
2. BRT Serviced	\$/SDU		\$6,972	\$1012	
	% of Uniform		19%	-83%	
3. MTSA	\$/SDU	\$5,439			\$11,274
	% of Uniform	-7%			186%

Table 2 below includes the calculated non-residential rates for each scenario.



Table 2
Summary of Non-Residential Rates

SCENARIO	RATE	REGION-WIDE	BRT SERVICED	NON-BRT	MTSAS
1. Uniform	Retail	\$5.92			
	IOI*	\$1.96			
	Hotel	\$1.04			
2. BRT Serviced	Retail		\$5.83	\$0.85	
	IOI*		\$1.67	\$0.24	
	Hotel		\$1.03	\$0.15	
3. MTSA	Retail	\$5.52			\$11.44
	IOI*	\$1.58			\$3.28
	Hotel	\$0.97			\$2.02

* Industrial/Office/Institutional

a) Development Forecast

The Council endorsed uniform region-wide rate structure as well as the other area-specific options are based on the development forecast for the Region aligned with the forecast used for other services. Details on the development forecast can be found in Chapter 2. Area-specific forecasts are detailed in the individual option sections below.

1. UNIFORM REGION-WIDE APPROACH

A uniform region-wide approach for collecting DCs with respect to costs associated with the YNSE is in-line with past practices for high order transit, namely TYSSE, and other DC eligible services. This approach is also supported by an overall approach to transportation planning as a network including all travel modes. Robust data is available to support this approach including transportation mode shares. The benefit of using a Region-wide approach is that it recognizes the Region-wide benefit of the works such as lower road congestion, reduced emissions, and resulting health benefits. It’s also of note that it is the most common approach for recovering transit DC capital costs among Ontario municipalities. With this approach, the YNSE-related rate for a single-family detached home would be \$5,837.

Further details on the calculation of the Region-wide approach can be found in Chapter 8.



2. MUNICIPALITIES CURRENTLY SERVICED BY RAPID TRANSIT

This option takes into consideration the relationship between existing rapid transit network and the future YNSE. Five municipalities have a BRT (VIVA) line through them: Aurora, Newmarket, Markham, Richmond Hill and Vaughan.

The residential share of growth to occur within the municipalities serviced by rapid transit over the 2022 to 2041 period is 80% with the remainder to occur in municipalities without rapid transit. This is used to develop the area-specific population forecast for the 2022 to 2041 forecast period.

Table 3
Shares of Residential Growth in Municipalities with and without Rapid Transit

AREA	TOTAL AT 2021	TOTAL AT 2041	SHARE OF GROWTH
With Rapid Transit	1,063,164	1,445,011	80%
Without Rapid Transit	164,536	259,689	20%
Total	1,227,700	1,704,700	100%

Residential and non-residential growth within municipalities that are serviced by rapid transit and those not serviced is presented in Table 4 below.

Table 4
Residential and Non-Residential Shares of Growth
(2022-2041)

AREA	GROSS POPULATION	SHARE OF GROWTH	NON-RESIDENTIAL*	SHARE OF GROWTH	TOTAL (POP. & EMP.)
With Rapid Transit	382,177	74%	133,542	26%	515,719
Without Rapid Transit	91,400	78%	26,260	22%	117,660
Total	476,277		159,802		633,379

Notes:

1. Numbers may not sum due to rounding.
2. *Employment requiring new space.

The shares of cost attributed to municipalities with rapid transit is based on growth in trips generated in each municipality. The municipalities with rapid transit of Aurora, Newmarket, Markham, Richmond Hill and Vaughan make up 97% of the growth in trips over the 2021 to 2041 period with the remaining 3% in Georgina, East Gwillimbury, King and Whitchurch-Stouffville.

Of the total DC-eligible cost of \$840.0 million, \$812.2 is attributed to growth within municipalities with rapid transit and the remaining \$27.8 million to municipalities without rapid transit based on the growth in trips noted above. Of the share attributed to development in municipalities with rapid transit, the costs are split \$601.5 million residential and \$210.7 million non-residential development (based on shares identified in Table 4. The shares attributed to residential development in municipalities without rapid transit total \$21.7 million and \$6.0 million is attributed to non-residential development also based on the shares in Table 4.

The anticipated ASDC for YNSE-related costs for municipalities with rapid transit would be \$1,830 per capita or \$6,972 per single detached home. The remaining four municipalities of Georgina, East Gwillimbury, King and Whitchurch-Stouffville would have a charge of \$266 per capita or \$1,012 per single detached home.

When comparing Option 2 to the uniform region-wide rate, the five rapid transit serviced municipalities would have an 19% higher rate, or \$1,136 per SDU, while the development in the other four municipalities would be subject to a substantially lower rate, by 83% or \$4,824 per SDU. The lower YNSE DC rates in municipalities not serviced by rapid transit, under Option 2, are not reflective of the direct and indirect benefits that development in these areas will receive from the subway extension.

Generally, the non-residential rate for this option is closely aligned as under Option 1. Details on non-residential allocation methodology can be found in Chapter 6. Calculated non-residential rates for this option are as follows:

Table 5
Summary of Non-Residential Rates (Rapid Transit Serviced and Not Serviced)

RATE	BRT SERVICED	NON-BRT
Retail (excl. Hotel)	\$5.83	\$0.85
Industrial/Office/Institutional	\$1.67	\$0.24
Hotel	\$1.03	\$0.15

3. OPTION 3 – BASE RATE WITH MTSA “SURCHARGE”

The last option considered is a blended approach of both a Region-wide charge and an additional ASDC in the five MTSAs located along the YNSE Richmond Hill Centre, Langstaff-Longbridge, Royal Orchard MTSA, Clark Avenue and Steeles.

ii. Development Forecast

Residential share of development costs in the MTSA is based on the Region-wide scenario of 75% residential and 5.39% Retail (excluding Hotel), 19.61% IOI (Industrial, Office and Institutional) and 0.12% Hotel.

iii. Shares of Population in MTSAs

Based on the development forecast data, it is estimated that 6.8% of the Region-wide gross population growth over the YNSE DC planning horizon, 2022-2041, will be within the MTSAs identified above. The option is premised upon the higher projected draw on service and benefits enjoyed by development in the MTSA and therefore, arguably, should pay a higher share of the development-related costs of the YNSE.

For the purpose of this analysis the following assumption has been applied: development in the MTSA zones will be allocated an incremental benefit based on the share of population growth of 6.8% to occur in the MTSA zones. The residential share of the YNSE development-related costs is approximately \$630.0 million and under this option \$586.2 million (93%) is recovered on a region-wide uniform basis (including development in the MTSA zones) and the remaining \$42.8 million (7%) is recovered as an incremental ASDC on development in the MTSAs.

In addition to the shares of population growth in the MTSAs, ridership data suggests that trip origins in the MTSAs are approximately two times higher than the region-wide ridership. By 2041, the MTSA average trips per capita increase to 0.0777 while the Region-wide average increases to 0.0402. It is therefore appropriate that the MTSA total charge is approximately double that which is applied Region-wide.

iv. Shares of Employment in MTSA Approach

Of the total DC-eligible YNSE cost, \$211.0 million is related to non-residential development in the Region which is further broken down with \$73.6 million is related to Retail (excluding Hotel), \$136.0 million related to IOI, and \$1.4 million related to Hotel.

Region-wide non-residential development shares for YNSE were used for the purposes of determining MTSA rates. The share of non-residential growth forecasted to occur within the MTSA is 6.8%. The costs are allocated based on trip generated by each sector which forms the basis of the cost attributed to non-residential development \$5.0 million – Retail (excluding Hotel), \$9.2 million – IOI, and \$93,100 – Hotel) and region-wide (\$68.6 million - Retail (excluding Hotel), \$126.78 million – IOI, and \$1.3 million – Hotel).

The table below summarizes the non-residential rates under Option 3.

Table 6
Summary of Non-Residential Rates (MTSA and Region-Wide)

RATE	REGION-WIDE	MTSAS
Retail (excl. Hotel)	\$5.52	\$11.44
Industrial/Office/Institutional	\$1.58	\$3.28
Hotel	\$0.97	\$2.02

v. Uplift in Land Value Analysis

In 2020, York Region retained Conference Board of Canada to examine the economic impact of the Yonge North Subway Extension. Included in this work is an analysis of potential land value uplift in areas proximate to the subway. The surcharge detailed above for the MTSA development is equivalent to capturing 5% of the uplift in land value.

This illustrates that the population approach in the section above does not result in the calculated MTSA ASDCs creating a significant financial impact on development as the approach captures just 5% of the land value uplift.

vi. Comparison with Region-Wide Rates

Based on the approach described above, a base YNSE DC of \$5,443 per SDU would apply. This base DC rate would be applied against all development in the region, including in the MTSA. The incremental benefit to the MTSA is valued at \$42.8 million which results in an YNSE ASDC rate of \$5,841 per SDU. For greater clarity, development in the YNSE MTSA would be subject to a total YNSE DC of \$11,284 per SDU, made up of the \$5,443 region-wide charge plus the \$5,841 ASDC.

Under Option 3, the development in the five MTSA would have experience significantly higher, approximately \$5,438 per SDU or 186%, YNSE DC rates while the development in the other four municipalities would be subject to a lower, \$397 per SDU or 7%, YNSE DC rates when compared to the calculated uniform Region-wide YNSE DC rates noted in Table 1.

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Appendix C: 2022 Development Charges Bylaw

THE REGIONAL MUNICIPALITY OF YORK

BYLAW NO. 2022-XX

A bylaw to impose development charges against lands to pay for increased capital costs required because of increased needs for services arising from development within The Regional Municipality of York

WHEREAS Section 2 of the *Development Charges Act, 1997*, S.O. 1997, c. 27 (the “Act”) authorizes Regional Council to enact a bylaw to impose development charges against land to pay for increased capital costs required because of increased needs for services arising from development;

AND WHEREAS a background study dated May 5, 2022, required by Section 10 of the Act, was presented to Regional Council along with a draft of this bylaw as then proposed on March 3, 2022 and was completed within a one-year period prior to the enactment of this bylaw;

AND WHEREAS Regional Council directed that the background study and draft proposed bylaw be made available to the public and such documents were made available to the public 60 days prior to the passage of the bylaw and at least two (2) weeks prior to the public meeting required pursuant to Section 12 of the Act;

AND WHEREAS the development charge background study includes an asset management plan that deals with all assets whose capital costs are intended to be funded under the development charges bylaw and that such assets are considered to be financially sustainable over their full life-cycle pursuant to Subsection 10(3) of the Act;

AND WHEREAS notice of the public meeting was provided in accordance with the requirements of Section 12 of the Act and in accordance with the regulations under the Act, and such public meeting was held on March 24, 2022;

AND WHEREAS any person who attended the public meeting was afforded an opportunity to make representations and the public generally were afforded an opportunity to make written submissions relating to the proposed bylaw;

AND WHEREAS Regional Council resolved on May 26, 2022 that it is the intention of Regional Council to ensure that the increase in need for services identified in connection with the enactment of the bylaw will be met;

AND WHEREAS Regional Council resolved on May 26, 2022 that no further public meeting be required and that this bylaw be brought forward for enactment;

The Council of The Regional Municipality of York hereby enacts as follows:

1.0 DEFINITIONS

1.1 In this bylaw, the following definitions apply:

“**accessory use**” means that the building or structure is naturally and normally incidental to or subordinate in purpose or both, and exclusively devoted to a principal use, building or structure;

“**Act**” means the *Development Charges Act, 1997*, S.O. 1997, c. 27;

“**agricultural use**” means lands, buildings or structures, excluding any portion thereof used as a dwelling unit, used or designed or intended for use for the purpose of a *bona fide* farming operation including, but not limited to, animal husbandry, dairying, livestock, fallow, field crops, removal of sod, forestry, fruit farming, horticulture, market gardening, pasturage, poultry keeping, equestrian facilities and any other activities customarily carried on in the field of agriculture;

“**apartment building**” means a residential building or the residential portion of a mixed-use building, other than a townhouse, consisting of more than three (3) dwelling units, which dwelling units have a common entrance to grade;

“**area municipality**” means a city, town or township in the Region;

“**banquet hall**” means a building or part of a building used primarily for the purpose of catering to banquets, weddings, receptions or similar social functions for which food and beverages are served;

“**building permit**” means a permit issued under the Building Code Act, 1992, which permits the construction of a building or structure or, which permits the construction of the foundation of a building or structure;

“**community use**” means a facility traditionally provided by a municipality which serves a municipal purpose and shall include a community centre, library/research facility, recreation facility and a shelter;

“**convention centre**” means a building with a gross floor area greater than 40,000 square feet which is designed and used primarily to accommodate the following:

- (a) the assembly of large gatherings of persons for trade, business or educational purposes, or any combination thereof;
- (b) the display of products or services;
- (c) accessory uses may include administrative offices, display areas, show-rooms, training facilities and banquet facilities, but does not include a banquet hall;

“development” means construction, erection or placing of one or more buildings or structures on land or the making of an addition or alteration to a building or structure that has the effect of increasing the size or changing the use thereof from nonresidential to residential or from residential to non-residential and includes redevelopment

“development charges” means charges imposed pursuant to this bylaw adjusted in accordance with Section 5;

“duplex” means a building comprising, by horizontal division, two (2) dwelling units, each of which has a separate entrance to grade;

“dwelling unit” means a room or suite of rooms used, or designed or intended for use by one (1) person or persons living together, in which culinary and sanitary facilities are provided for the exclusive use of such person or persons;

“funeral home” means a building with facilities for the preparation of dead persons for burial or cremation, for the viewing of the body and for funeral services;

“future development” means a block identified within a plan of subdivision which requires a subsequent planning approval, in addition to a building permit, which planning approval shall include a site plan approval or the approval of a plan of condominium;

“general services” means services in regard to transit, Toronto-York Spadina Subway Extension, Yonge North Subway Extension, police, ambulance services, public health, waste diversion, public works, housing services, court services, growth studies, and long-term care/seniors services;

“gross floor area” means, in the case of a non-residential building or structure or the non-residential portion of a mixed-use building or structure, the aggregate of the areas of each floor, whether above or below grade, measured between the exterior faces of the exterior walls of the building or structure or from the centre line of a common wall separating a non-residential and a residential use, excluding, in the case of a building or structure containing an atrium, the sum of the areas of the atrium at the level of each floor surrounding the atrium above the floor level of the atrium, and excluding the sum of the areas of each floor used, or designed or intended for use for the parking of motor vehicles unless the building or structure, or any part thereof, is a retail motor vehicle establishment or a standalone motor vehicle storage facility or a commercial public parking structure, and, for the purposes of this definition, notwithstanding any other section of this bylaw, the non-residential portion of a mixed-use building is deemed to include one-half of any area common to the residential and non-residential portions of such mixed-use building or structure, and gross floor area shall not include the surface area of swimming pools or the playing surfaces of indoor sport fields including but not limited to hockey arenas, and basketball courts;

“group home” means a residential building or the residential portion of a mixed- use building containing a single housekeeping unit supervised on a 24 hour a day basis on site by agency staff on a shift rotation basis, funded wholly or in part by any government and licensed, approved or supervised by the Province of Ontario under any general or special act, for the accommodation of not less than three (3) and not more than eight (8) residents, exclusive of staff;

“hard services” means water services, wastewater services and road services;

“heritage property” means a building or structure which, in the opinion of the local architectural conservation advisory committee is of historic or architectural value or interest, or which has been so designated under the *Ontario Heritage Act*;

“hotel” means a commercial establishment offering lodging to travelers which shall be assessed at a per square foot/per square metre charge and may include, without limitation, other uses such as restaurants, meeting rooms and stores, that are available to guests and/or to the general public. If the combined gross floor area of other such uses are greater than thirty three percent of the combined gross floor area of the lodging quarters, each non-lodging use in the structure will be assessed at the rate applicable to such other uses;

“high rise residential” means an apartment building that is four (4) or more storeys above grade, consisting of four (4) or more dwelling units and shall not include a stacked townhouse, which is less than four (4) dwelling units and four (4) storeys above-grade;

“industrial” means lands, buildings or structures used or designed or intended for use for manufacturing, processing, fabricating or assembly of raw goods, warehousing or bulk storage of goods, and includes office uses and the sale of commodities to the general public where such uses are accessory to an industrial use, but does not include the sale of commodities to the general public through a warehouse club;

“institutional” means lands, buildings or structures used or designed or intended for use by an organized body, society or religious group for promoting a public or non-profit purpose and shall include, but without limiting the generality of the foregoing, places of worship, medical clinics and special care facilities;

“industrial/office/institutional” means lands, buildings or structures used or designed or intended for use for any of an industrial use, office use or institutional use and shall include a convention centre and any other non-residential use which is not a retail use;

“large apartment” means a dwelling unit in an apartment building, plex or stacked townhouse that is 700 square feet or larger in size;

“live-work unit” means a unit intended for both residential and non-residential uses concurrently;

“local board” means a local board as defined in the Act;

“mixed-use” means land, buildings or structures used, or designed or intended for use, for a combination of non-residential and residential uses;

“mobile home” means any dwelling that is designed to be made mobile, and constructed or manufactured to provide a permanent residence for one (1) or more persons, but does not include a travel trailer or tent trailer;

“multiple unit dwellings” includes townhouses, back-to-back townhouses, mobile homes, group homes and all other residential uses that are not included in the definition of “apartment building”, “small apartment”, “large apartment”, “single detached dwelling” or “semi-detached dwelling”;

“non-profit” means a corporation without share capital that has objects of a charitable nature;

“non-residential use” means lands, buildings or structures or portions thereof used, or designed or intended for use for other than residential use;

“office” means lands, buildings or structures used or designed or intended for use for the practice of a profession, the carrying on of a business or occupation or the conduct of a non-profit organization and shall include, but not be limited to, the office of a physician, lawyer, dentist, architect, engineer, accountant, real estate or insurance agency, veterinarian, surveyor, appraiser, financial institution, contractor, builder, land developer;

“place of worship” means a building or structure that is used primarily for worship;

“plex” means a duplex, a semi-detached duplex, a triplex or a semi-detached triplex;

“private school” means an educational institution operated on a non-profit basis, excluding any dormitory or residence accessory to such private school, that is used primarily for the instruction of students in courses of study approved or authorized by the Minister of Education;

“Region” means The Regional Municipality of York as a municipal corporation and, where the context requires, its geographic area;

“Regional Council” means the Council of The Regional Municipality of York;

“region-wide charges” means the development charges imposed with respect to the following services:

- (a) water;
- (b) wastewater;
- (c) roads;
- (d) transit;
- (e) Toronto-York Spadina Subway Extension;
- (f) Yonge North Subway Extension;
- (g) police;
- (h) ambulance services;
- (i) public health;
- (j) waste diversion;
- (k) public works;
- (l) housing services;
- (m) court services;
- (n) growth studies; and
- (o) long-term care/seniors services.

“Regulation” means O. Reg. 82/98 under the Act;

“residential use” means lands, buildings or structures used, or designed or intended for use as a residence for one (1) or more individuals, and shall include, but is not limited to, a single detached dwelling, a semi-detached dwelling, a townhouse, a stacked townhouse, a plex, an apartment building, a group home, a mobile home and a residential dwelling unit accessory to a non-residential use but shall not include a lodging house licensed by a municipality;

“residential in-fill use” means ground related residential use, such as a single detached-dwelling, semi-detached dwelling, townhouse or stacked townhouse, comprising three (3) lots or less;

“retail” means lands, buildings or structures used or designed or intended for use for the sale or rental or offer for sale or rental of goods or services to the general public for consumption or use and shall include, but not be limited to, a banquet hall, a funeral home, but shall exclude office;

“retail motor vehicle establishment” means a building or structure used or designed or intended to be used for the sale, rental or servicing of motor vehicles, or any other function associated with the sale, rental or servicing of motor vehicles including but not limited to detailing, leasing and brokerage of motor vehicles, and short or long-term storage of customer motor vehicles. For a retail motor vehicle establishment, gross floor area includes the sum of the areas of each floor used or designed or intended for use for the parking or storage of motor vehicles, including customer and employee motor vehicles. An exemption may be granted to exclude the sum of the areas for customer and employee motor vehicles on terms and conditions to the satisfaction of the Region;

“self storage building” means a building or part of a building consisting of individual storage units, which are accessible by the users, that are used to provide storage space to the public;

“semi-detached duplex” means one (1) of a pair of attached duplexes, each duplex divided vertically from the other by a party wall;

“semi-detached dwelling” means a building divided vertically into and comprising two (2) dwelling units;

“semi-detached triplex” means one (1) of a pair of triplexes divided vertically one (1) from the other by a party wall;

“serviced” for the purposes of Section 3 means the particular service is connected to or available to be connected to the lands, buildings or structures, or, as a result of the development, will be connected to or will be available to be connected to the lands, buildings or structures;

“services” means services designated in Section 2.1 of this bylaw;

“shelter” means a building in which supervised short-term emergency shelter and associated support services are provided to individuals who are fleeing situations of physical, financial, emotional or psychological abuse;

“single detached dwelling” and **“single detached”** means a residential building consisting of one (1) dwelling unit that is not attached to another structure above grade. For greater certainty, a residential building consisting of one (1) dwelling unit that is attached to another structure by footings only shall be considered a single family dwelling for purposes of this bylaw;

“small apartment” means a dwelling unit in an apartment building, a plex or a stacked townhouse that is less than 700 square feet in size;

“special care facilities” means lands, buildings or structures used or designed or intended for use for the purpose of providing residential accommodation, supervision, nursing care or medical treatment, which do not comprise dwelling units, that are licensed, approved or supervised under any special or general Act;

“stacked townhouse” means a building, other than a plex, townhouse or apartment building, containing at least three (3) dwelling units, being separated from the other vertically and/or horizontally, each dwelling unit having an entrance to grade or where the entrance is shared with no more than two (2) other units at grade.

“standalone motor vehicle storage facility” means a building or structure used or designed or intended for use for the storage or warehousing of motor vehicles that is separate from a retail motor vehicle establishment. For a standalone motor vehicle storage facility, gross floor area includes the sum of the areas of each floor used or designed or intended for use for the parking or storage of motor vehicles, including customer and employee motor vehicles. An exemption may be granted to exclude the sum of the areas for customer and employee motor vehicles on terms and conditions to the satisfaction of the Region;

“townhouse” means a building, other than a plex, stacked townhouse or apartment building, containing at least three (3) dwelling units, each dwelling unit separated vertically from the other by a party wall and each dwelling unit having a separate entrance to grade;

“triplex” means a building comprising three (3) dwelling units, each of which has a separate entrance to grade;

“university” has the same meaning as defined in Section 171.1 of the *Education Act*.

2.0 DESIGNATION OF SERVICES

2.1 The categories of services for which development charges are imposed under this bylaw are as follows:

- (a) water;
- (b) wastewater;
- (c) roads;
- (d) transit;
- (e) Toronto-York Spadina Subway Extension;
- (f) Yonge North Subway Extension;
- (g) police;
- (h) ambulance services;
- (i) public health;
- (j) waste diversion;
- (k) public works;
- (l) housing services;
- (m) court services;
- (n) growth studies; and
- (o) long-term care/seniors services.

2.2 The components of the services designated in Section 2.1 are described in Schedule A.

3.0 APPLICATION OF BYLAW RULES

3.1 Development charges shall be payable in the amounts set out in Sections 3.6, 3.9, 3.10 and 3.11 of this bylaw where:

- (a) the lands are located in the area described in Section 3.2; and
- (b) the development of the lands requires any of the approvals set out in subsection 3.4(a).

3.1.1 Development charges shall be calculated in accordance with this bylaw, the background study and all policies contained within the background study dated March 3, 2022, save and except for the development charge credit policy described in Section 11.13 of the background study.

Area to Which bylaw Applies

3.2 Subject to Section 3.3, this bylaw applies to all lands in the geographic area of the Region.

- 3.3** This bylaw shall not apply to lands that are owned by and used for the purposes of:
- (a) the Region or a local board thereof;
 - (b) a board as defined in Section 1(1) of the *Education Act*; or
 - (c) an area municipality or a local board thereof.

Approvals for Development

- 3.4** (a) Development charges shall be imposed on all lands, buildings or structures that are developed for residential or non-residential uses if the development requires,
- (i) the passing of a zoning bylaw or of an amendment to a zoning bylaw under Section 34 of the *Planning Act* or any successor thereto;
 - (ii) the approval of a minor variance under Section 45 of the *Planning Act* or any successor thereto;
 - (iii) a conveyance of land to which a bylaw passed under subsection 50(7) of the *Planning Act* or any successor thereto applies;
 - (iv) the approval of a plan of subdivision under Section 51 of the *Planning Act* or any successor thereto;
 - (v) a consent under Section 53 of the *Planning Act* or any successor thereto;
 - (vi) the approval of a description under the *Condominium Act, 1998*, or any successor thereto; or
 - (vii) the issuing of a permit under the *Building Code Act, 1992*, or any successor thereto, in relation to a building or structure.
- (b) No more than one (1) development charge for each service designated in Section 2.1 shall be imposed upon any lands, buildings or structures to which this bylaw applies even though two (2) or more of the actions described in subsection 3.4(a) are required before the lands, buildings or structures can be developed.

- (c) Notwithstanding subsection 3.4(b) and notwithstanding any other Section of this bylaw, if two (2) or more of the actions described in subsection 3.4(a) occur at different times, additional development charges shall be imposed if the subsequent action has the effect of increasing the need for services.
- (d) Subsection 3.4(a) shall not apply in respect of an action mentioned in subsection 3.4 (a) (i) to (vii), if the only effect of the action is to:
 - (i) permit the enlargement of an existing dwelling unit; or
 - (ii) permit the creation of additional dwelling units as prescribed, subject to the prescribed restrictions, in prescribed classes of existing residential buildings or prescribed structures ancillary to existing residential buildings.
- (e) The creation of a second dwelling unit in prescribed classes of proposed new residential buildings, including structures ancillary to dwellings, is, subject to the prescribed restrictions, exempt from development charges.
- (f) For greater clarity, prescribed under sections subsections 3.4(d) and 3.4 (e) of this bylaw shall be the same as is prescribed in the Regulation.

Exemptions

3.5.1 Notwithstanding the provisions of this bylaw, but subject to subsection 3.5.2, development charges shall not be imposed or may be deferred, on terms and conditions, satisfactory to the Region, with respect to:

- (a) the relocation of a heritage house;
- (b) a building or structure used for a community use owned by a non-profit corporation;
- (c) a hospice;
- (d) land owned by and used for the purposes of a private school that is exempt from taxation under the *Assessment Act* or any successor thereto;
- (e) lands, buildings or structures used or to be used for the purposes of a cemetery or burial ground exempt from taxation under the *Assessment Act* or any successor thereto;
- (f) non-residential uses permitted pursuant to Section 39 of the *Planning Act* or any successor thereto;
- (g) agricultural uses;

- (h) development creating or adding an accessory use or structure not exceeding 100 square metres of gross floor area, save and except for any live work units with a retail component; for such units development charges will be payable pursuant to Section 3.10 on the retail component;
- (i) a public hospital receiving aid under the *Public Hospitals Act* or any successor thereto;
- (j) lands vested in or leased to a university that receives regular and ongoing operating funds from the government for the purposes of post-secondary education, if the development in respect of which the development charges would otherwise be payable is intended to be occupied and used by the university.

3.5.2 The provisions of subsection 3.5.1 shall only apply to exempt or defer, as the case may be, a development described in paragraph (a), (b), (c) or (d) thereof from the payment of development charges if the area municipality in which the development is to be located exempts or defers development charges, as the case may be, with respect to the development in question.

Amount of Charge Residential

3.6 The development charges described in Schedule B to this bylaw shall be imposed on residential uses of lands, buildings or structures, including a dwelling unit accessory to a non-residential use and, in the case of a mixed-use building or structure, on the residential uses in the mixed-use building or structure, according to the type of residential unit, and calculated as follows:

- (a) Region-wide Charges
 - (i) a development charge with respect to each of the general services according to the type of residential use;
 - (ii) a development charge with respect to road services according to the type of residential use;
 - (iii) where the lands, buildings or structures are serviced by regional water services, the development charge with respect to water services according to the type of residential use;
 - (iv) where the lands, buildings or structures are serviced by regional wastewater services, the development charge with respect to wastewater services according to the type of residential use;

- (b) For determining development charges under this bylaw, any residential dwelling that is less than 700 square feet of total gross floor area shall be deemed a small apartment and pay the corresponding development charge set out in Schedule B.

3.7 Notwithstanding subsection 3.6(a),

- (a) a development charge with respect to regional water services shall not be imposed against the lands identified on the legend shown on Schedule C;
- (b) a development charge with respect to regional wastewater services shall not be imposed against the lands identified on the legend shown on Schedule D;
- (c) A development charge with respect to regional wastewater services shall not be imposed against the lands shown on Schedule E.

Contingent Development Charges

- 3.8** Thirty days after the happening of an event described in Column 3 of Schedule G, the residential development charge under Section 3.6 which corresponds to the service described in Column 2 of Schedule G shall be increased by the amounts shown in Columns 4, 5, 6 and 7 of Schedule G according to the type of residential unit.

Non-Residential

Industrial/Office/Institutional Uses

3.9 The development charges described in Schedule F to this bylaw shall be imposed on industrial/office/institutional uses of lands, buildings or structures, and, in the case of a mixed-use building or structure, on the industrial/office/institutional uses in the mixed-use building or structure, and calculated as follows:

(a) **Region-wide Charges**

- (i) a development charge with respect to each of the general services according to the gross floor area of the industrial/office/institutional use;
- (ii) a development charge with respect to road services according to the gross floor area of the industrial/office/institutional use;
- (iii) where the lands, buildings or structures are serviced by regional water services, the development charge with respect to water services according to the gross floor area of the industrial/office/institutional use;
- (iv) where the lands, buildings or structures are serviced by regional wastewater services, the development charge with respect to wastewater services according to the gross floor area of the industrial/office/institutional use.

3.9.1 Notwithstanding subsection 3.9(a)(iv), a development charge with respect to regional wastewater services shall not be imposed against the lands shown on Schedule E.

Retail Uses

3.10 The development charges described in Schedule F to this bylaw shall be imposed on retail uses of lands, buildings or structures, and, in the case of a mixed-use building or structure, on the retail uses in the mixed-use building or structure, and calculated as follows:

(a) **Region-wide Charges**

- (i) a development charge with respect to each of the general services according to the gross floor area of the retail use;

- (ii) a development charge with respect to road services according to the gross floor area of the retail use;
- (iii) where the lands, buildings or structures are serviced by regional water services, the development charge with respect to water services according to the gross floor area of the retail use;
- (iv) where the lands, buildings or structures are serviced by wastewater services, the development charge with respect to wastewater services according to the gross floor area of the retail use.

3.10.1 Notwithstanding subsection 3.10(a)(iv) a development charge with respect to regional wastewater services shall not be imposed against the lands shown on Schedule E.

Hotel Uses

3.11 The development charges described in Schedule F to this bylaw shall be imposed on hotel uses of lands, buildings or structures and calculated as follows:

(a) **Region-wide Charges**

- (i) a development charge with respect to each of the general services according to the gross floor area of the hotel use;
- (ii) a development charge with respect to road services according to the gross floor area of the hotel use;
- (iii) where the lands, buildings or structures are serviced by regional water services, the development charge with respect to water services according to the gross floor area of the hotel use;
- (iv) where the lands, buildings or structures are serviced by wastewater services, the development charge with respect to wastewater services according to the gross floor area of the hotel use.

3.11.1 Notwithstanding subsection 3.11(b)(ii) a development charge with respect to regional wastewater services shall not be imposed against the lands shown on Schedule E.

Multiple Industrial/Office/Institutional and Retail Uses

- 3.12** In the case of lands, buildings or structures used or designed or intended for use for both industrial/office/institutional uses and retail uses, the development charges otherwise applicable to such development under both Sections 3.9 and 3.10 shall be determined on the following basis:
- (a) as between the industrial/office/institutional uses and the retail uses, the principal use of the development shall be that use which has the greater gross floor area, such principal use being the use of 55% or greater of the total gross floor area. If no single use has 55% or greater of the total gross floor area, then the development charge payable on the total gross floor area shall be the average of the two non-residential charges payable;
 - (b) the development charges under either Section 3.9 or 3.10 applicable to such principal use as determined under paragraph (a), provided that there is a principal use determined under paragraph (a), shall be applied to the total non-residential gross floor area of the development;
 - (c) Notwithstanding this Section 3.12, if any building or structure designed or intended for use for both industrial/office/institutional uses and retail uses, and, where such building or structure contains multiple individually owned units, each unit's payable development charges will be assessed individually based on the predominant use of that unit.
 - (d) Subsections 3.12(a) and 3.12(b) do not apply to a retail motor vehicle establishment or a standalone motor vehicle storage facility. Where a retail motor vehicle establishment is one of multiple industrial/office/institutional uses and retail uses in a building or structure, the development charge payable shall be the retail charge. For a retail motor vehicle establishment, where the sum of the areas used, or designed or intended for use for the parking or storage of motor vehicles, excluding the sum of the areas for customer and employee motor vehicles, as determined by the Region, is more than two times greater than the remaining area, the retail rate shall be applied to two times the difference between the gross floor area of the entire retail motor vehicle establishment and the gross floor area of the area used for parking or storage, and any gross floor area above that shall be levied the industrial/office/institutional rate.

Contingent Development Charges

- 3.13** Thirty days after the happening of an event described in Column 3 of Schedule G, the non-residential development charge under Sections 3.9, 3.10 and 3.11 which corresponds to the service described in Column 2 of Schedule G shall be increased by the amounts shown in Columns 8, 9, and 10 of Schedule G according to the type of non-residential development.

Place of Worship

3.14 Notwithstanding Section 3.9, development charges shall not be imposed in respect of the gross floor area of a place of worship to a maximum of 5,000 square feet (or 464.5 square metres) or in respect of that portion of the gross floor area of a place of worship which is used as an area for worship, whichever is greater.

Reduction of Development Charges Where Redevelopment

3.15 Where, as a result of the redevelopment of land, a building or structure existing on the land within 48 months prior to the date of payment of development charges in regard to such redevelopment was, or is to be demolished, in whole or in part, or converted from one principal use to another, in order to facilitate the redevelopment, the development charges otherwise payable with respect to such redevelopment shall be reduced by the following amounts:

- (a) in the case of a residential building or structure, or in the case of a mixed-use building or structure, the residential uses in the mixed-use building or structure, an amount calculated by multiplying the applicable development charge under Section 3.6 of this bylaw by the number, according to type, of dwelling units that have been or will be demolished or converted to another principal use; and
- (b) in the case of a non-residential building or structure or, in the case of mixed-use building or structure, the non-residential uses in the mixed-use building or structure, an amount calculated by multiplying the applicable development charges under Section 3.9, 3.10, 3.11 or 3.12 of this bylaw by the gross floor area that has been or will be demolished or converted to another principal use. Development charges shall not be reduced under this subsection for a non-residential building or structure or, in the case of mixed-use building or structure, the non-residential uses in the mixed-use building or structure, being demolished or converted for which development charges were not imposed or were exempted, or which was not subject to development charges after November 23, 1991;

provided that such amounts shall not exceed, in total, the amount of the development charges otherwise payable with respect to the redevelopment. The 48 month time frame shall be calculated from the date of the issuance of the demolition permit.

3.15.1 For the purposes of Section 3.15, the onus is on the applicant to produce evidence to the satisfaction of the Region, acting reasonably, to establish the following:

- (a) the number of dwelling units that have been or will be demolished or converted to another principal use; or

- (b) the non-residential gross floor area that has been or will be demolished or converted to another principal use; and
- (c) in the case of a demolition, that the dwelling units and/or non-residential gross floor area were demolished within 48 months prior to the date of the payment of development charges in regard to the redevelopment.

3.15.2 Any building or structure, that is determined to be derelict or the equivalent of derelict prior to issuance of a demolition permit by the municipal council of the area municipality in which the building or structure is located, shall be eligible for development charge credits in accordance with subsection 3.15.3.

3.15.3 Any building or structure deemed derelict, or the equivalent of derelict in accordance with subsection 3.15.2 shall be eligible for development charge credits if a building permit is issued for a building or structure on the lands previously occupied by the deemed derelict building or structure within 120 months or less of the issuance of demolition permit for the deemed derelict building or structure. The development charge credit shall be calculated in accordance with the time requirements between demolition permit issuance and building permit issuance as set out in Schedule H. The amount of development charges payable for any development to which subsections 3.15.2 and 3.15.3 apply, shall be calculated in accordance with Section 3.15 and subsection 3.15.1.

Reduction of Development Charges Where Gross Floor Area is Increased

3.16 Notwithstanding any other provisions of this bylaw, if a development includes the expansion of the gross floor area of an industrial, office or institutional building, the amount of the development charge that is payable in respect of the expansion shall be calculated as follows:

- (a) If the gross floor area is expanded by fifty percent of the original gross floor area of the existing development, or less, the amount of the development charge in respect of the expansion is zero;
- (b) If the gross floor area is expanded by more than fifty percent of the original gross floor area of the existing development the amount of the development charge in respect of the expansion is the amount of the development charge that would otherwise be payable multiplied by the fraction determined as follows:
 - (i) determine the area by which the expansion exceeds fifty percent of the original gross floor area of the existing development before any expansion; and
 - (ii) divide the amount under paragraph (b)(i) by the amount of the expansion of the original gross floor area of the existing development.

When amount of development charge is determined

3.17 Where clause (1)(a) or (1)(b) of Section 26.2 of the Act applies to a development for the purposes of determining the amount of the development charge, the development charge payable under this bylaw shall be determined in accordance with Section 26.2 and such development charge shall be subject to interest in accordance with Region's Development Charge Interest Policy-Under sections 26.1 and 26.2 of the Development Charges Act, 1997, as may be amended by Regional Council.

Time of Payment of Development Charges

3.18 Development charges imposed under this Section are payable on the date on which a building permit is issued with respect to each dwelling unit, building or structure.

3.18.1 If a use or development of land, buildings or structures does not require the issuance of a building permit but requires one (1) or more of the actions listed in subsection 3.4(a)(i) to (vi) inclusive, a development charge shall be payable and shall be calculated and collected on the earliest of any of the actions listed in subsection 3.4(a)(i) to (vi) being required.

3.19 Notwithstanding Section 3.18, development charges with respect to Region-wide Charges imposed under subsection 3.6(a)(ii)(iii)and(iv) with respect to an approval of a residential plan of subdivision under Section 51 of the *Planning Act*, are payable immediately upon the owner entering into the Regional development charge agreement respecting such plan of subdivision, on the basis of the following, unless such a plan of subdivision includes blocks intended for future development, in which case development charges payable for such blocks shall be determined at building permit issuance:

- (a) the proposed number and type of dwelling units in the final plan of subdivision; and
- (b) with respect to blocks in the plan of subdivision intended for future development, development charges for such blocks shall be payable at building permit issuance.

3.20 For the purposes of paragraph (b) of Section 3.19, where the use or uses to which a block in a plan of subdivision may be put pursuant to a zoning bylaw passed under Section 34 of the *Planning Act*, are affected by the use of a holding symbol in the zoning bylaw as authorized by Section 36 of the *Planning Act*, the development charges for such blocks shall be payable at building permit issuance.

- 3.21** For the purposes of Sections 3.19 and 3.20, and notwithstanding any other provision of this bylaw, where a subdivision agreement identifies the number and type of dwelling units proposed for the residential plan of subdivision, the number and type of dwelling units so identified shall be used to calculate the development charges payable under Section 3.18.
- 3.22** Notwithstanding Section 3.18 of this bylaw, where Section 26.1 of the Act applies in respect of any part of a development, the development charges imposed under this bylaw, in respect that part of the development to which Section 26.1 of the Act applies only, shall be payable in annual installments in accordance with the requirements of subsection 26.1(3) of the Act, and shall be subject to interest in accordance with Region's Development Charge Interest Policy - Under sections 26.1 and 26.2 of the Development Charges Act, 1997, as may be amended by Regional Council.
- 3.23** Notwithstanding Sections 3.19 and 3.20, Regional Council, from time to time, and at any time, may authorize agreements providing for all or any part of a development charge to be paid before or after it would otherwise be payable.
- (a) If, at the time of issuance of a building permit or permits in regard to a lot or block on a plan of subdivision for which payments have been made pursuant to Section 3.19, the type of dwelling unit for which building permits are being issued is different from that used for the calculation and payment under Section 3.19, and there has been no change in the zoning affecting such lot or block, and the development charges for the type of dwelling unit for which building permits are being issued were greater at the time that payments were made pursuant to Section 3.19 than for the type of dwelling unit used to calculate the payment under Section 3.19, an additional payment to the Region is required, which payment, in regard to such different unit types, shall be the difference between the development charges in respect to the type of dwelling unit for which building permits are being issued, calculated as at the date of issuance of the building permit or permits, and the development charges previously collected in regard thereto, adjusted in accordance with Section 5.1 of this bylaw.
- (b) If, at the time of issuance of a building permit or permits in regard to a lot or block on a plan of subdivision for which payments have been made pursuant to Section 3.19, the total number of dwelling units of a particular type for which building permits have been or are being issued is greater, on a cumulative basis, than that used for the calculation and payment under Section 3.18, and there has been no change in the zoning affecting such lot or block, an additional payment to the Region is required, which payment shall be calculated on the basis of the number of additional dwelling units at the rate prevailing as at the date of issuance of the building permit or permits for such dwelling units.

- (c) If, at the time of issuance of a building permit or permits in regard to a lot or block on a plan of subdivision for which payments have been made pursuant to Section 3.19, the type of dwelling unit for which building permits are being issued is different than that used for the calculation and payment under Section 3.19, and there has been no change in the zoning affecting such lot or block, and the development charges for the type of dwelling unit for which building permits are being issued were less at the time that payments were made pursuant to Section 3.19 than for the type of dwelling unit used to calculate the payment under Section 3.19, a refund in regard to such different unit types shall be paid by the Region, which refund shall be the difference between the development charges previously collected, adjusted in accordance with Section 5.1 of this bylaw to the date of issuance of the building permit or permits, and the development charges in respect to the type of dwelling unit for which building permits are being issued, calculated as at the date of issuance of the building permit or permits.
- (d) If, at the time of issuance of a building permit or permits in regard to a lot or block on a plan of subdivision for which payments have been made pursuant to Section 3.19, the total number of dwelling units of a particular type for which building permits have been or are being issued is less, on a cumulative basis, than that used for the calculation and payment under Section 3.19, and there has been no change in the zoning affecting such lot or block, a refund shall be paid by the Region, which refund shall be calculated on the basis of the number of fewer dwelling units at the rate prevailing as at the date of issuance of the building permit or permits.

3.24 Notwithstanding subsections 3.23(c) and (d), a refund shall not exceed the amount of the development charges paid under Section 3.19

4.0 PAYMENT BY SERVICES

4.1 Notwithstanding the payments required under Sections 3.18 and 3.19, Regional Council may, by agreement, and in accordance with approved policies, give a credit towards a development charge in exchange for work that relates to a service for which a development charge is imposed under this bylaw.

5.0 INDEXING

5.1 Development charges pursuant to this bylaw shall be adjusted annually, without amendment to this bylaw, commencing on July 1, 2023 and each anniversary of that date thereafter, in accordance with the Statistics Canada Quarterly Construction Price Statistics.

6.0 SCHEDULES

6.1 The following schedules to this bylaw form an integral part thereof:

- Schedule A - Components of Designated Services
- Schedule B - Residential Development Charges
- Schedule C - Lands Exempt from Residential Development Charge in Regard to Regional Water Supply Services (Kleinburg Community)
- Schedule D - Lands Exempt from Residential Development Charge in Regard to Regional Wastewater Services (Kleinburg Community)
- Schedule E - Lands Exempt from Residential and Non-Residential Development Charges in regard to Regional Wastewater Services (Village of Nobleton)
- Schedule F - Non-Residential Development Charges
- Schedule G - Contingent Residential and Non-Residential Development Charges
- Schedule H - Calculation of Development Charge Credits provided to Derelict Buildings

7.0 EFFECTIVE DATE

7.1 This bylaw shall come into force on June 17, 2022.

8.0 DATE BYLAW EXPIRES

8.1 This bylaw will expire on June 16, 2027, unless it is repealed at an earlier date.

9.0 REPEAL

9.1 Bylaw Nos. 2017-35 and 2018-42 are hereby repealed effective June 16, 2022.

ENACTED AND PASSED on *, 2022.

Regional Clerk

Regional Chair

*Authorized by Item * of the Committee of the Whole dated *, adopted by Regional Council at its meeting on May **, 2022*

SCHEDULE A
COMPONENTS OF DESIGNATED SERVICES

Services	Service Components
Water	<ul style="list-style-type: none"> • Water Supply • Water Pumping • Water Storage • Water Linear • Water Cost Shared Works • Planning and Studies
Wastewater	<ul style="list-style-type: none"> • Wastewater Treatment • Wastewater Pumping • Wastewater Linear • Wastewater Cost Shared Works • Planning and Studies
Roads	<ul style="list-style-type: none"> • Growth Structures (Grade Separations) • New Interchanges • Midblock Crossings • Growth New Infrastructure (Missing Links) • Growth Widen to 4 lands • Growth Widen to 6 lands • Road Improvements to Support Transit • Reconstruction • Environmental Assessment, Design, Survey, and Property Acquisition for Future Capital Projects • Intersection and Miscellaneous Capital • Transportation Demand Management • Active Transportation Programs and Initiatives • Growth Planning

Transit	<ul style="list-style-type: none"> ● Facilities ● Vehicles ● Technology ● Bus Rapid Transit Infrastructure
Toronto-York Spadina Subway Extension	<ul style="list-style-type: none"> ● Toronto-York Spadina Subway Extension
Yonge North Subway Extension	<ul style="list-style-type: none"> ● Yonge North Subway Extension
Police	<ul style="list-style-type: none"> ● Facilities ● Land ● Vehicles ● Equipment
Ambulance Services	<ul style="list-style-type: none"> ● Facilities ● Land ● Vehicles
Public Health	<ul style="list-style-type: none"> ● Provision for public health facilities ● Provision for public health vehicles
Waste Diversion	<ul style="list-style-type: none"> ● Facilities ● Growth Studies
Public Works	<ul style="list-style-type: none"> ● Facilities ● Vehicles
Housing Services	<ul style="list-style-type: none"> ● Facilities
Court Services	<ul style="list-style-type: none"> ● Facilities
Growth Studies	<ul style="list-style-type: none"> ● Growth-related studies
Long-Term Care/Seniors Services	<ul style="list-style-type: none"> ● Facilities

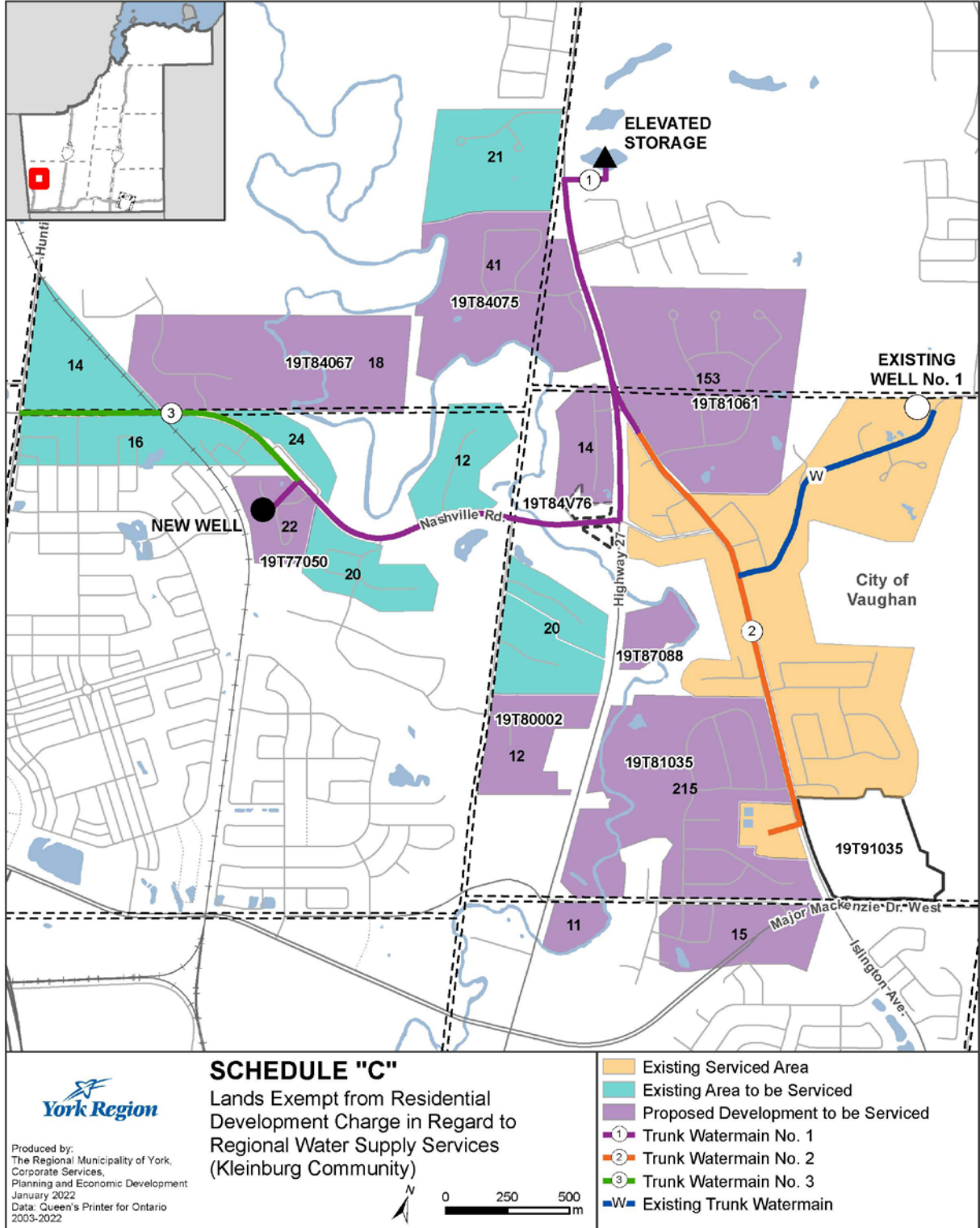
**SCHEDULE B
RESIDENTIAL DEVELOPMENT CHARGES
(\$ per unit)**

June 17 2022 to June 16 2027				
Service	Single and Semi- detached Dwelling	Multiple Unit Dwelling	Large Apartment (>=700 sqft)	Small Apartment (<700 sqft)
<u>Hard Services</u>				
Water	8,954	7,450	5,781	3,760
Wastewater	20,944	17,425	13,523	8,795
Roads	25,897	21,546	16,721	10,875
Subtotal Hard Services	55,794	46,421	36,024	23,430
<u>General Services</u>				
Transit	7,689	6,397	4,964	3,229
Toronto-York Spadina Subway Extension	3,448	2,869	2,226	1,448
Yonge North Subway Extension	5,837	4,856	3,769	2,451
Public Works	549	456	354	230
Waste Diversion	362	301	234	152
Police	1,078	897	696	453
Housing Services	1,608	1,338	1,038	675
Public Health	389	323	251	163
Ambulance Services	766	637	494	322
Growth Studies	175	146	113	74
Long Term Care/Seniors Services	0	0	0	0
Court Services	65	54	42	27
Subtotal General Services	21,965	18,275	14,182	9,224
Total	77,758	64,697	50,206	32,654

*Village of Nobleton is excluded in this table and is subject to a separate charge for Wastewater Treatment services

SCHEDULE C

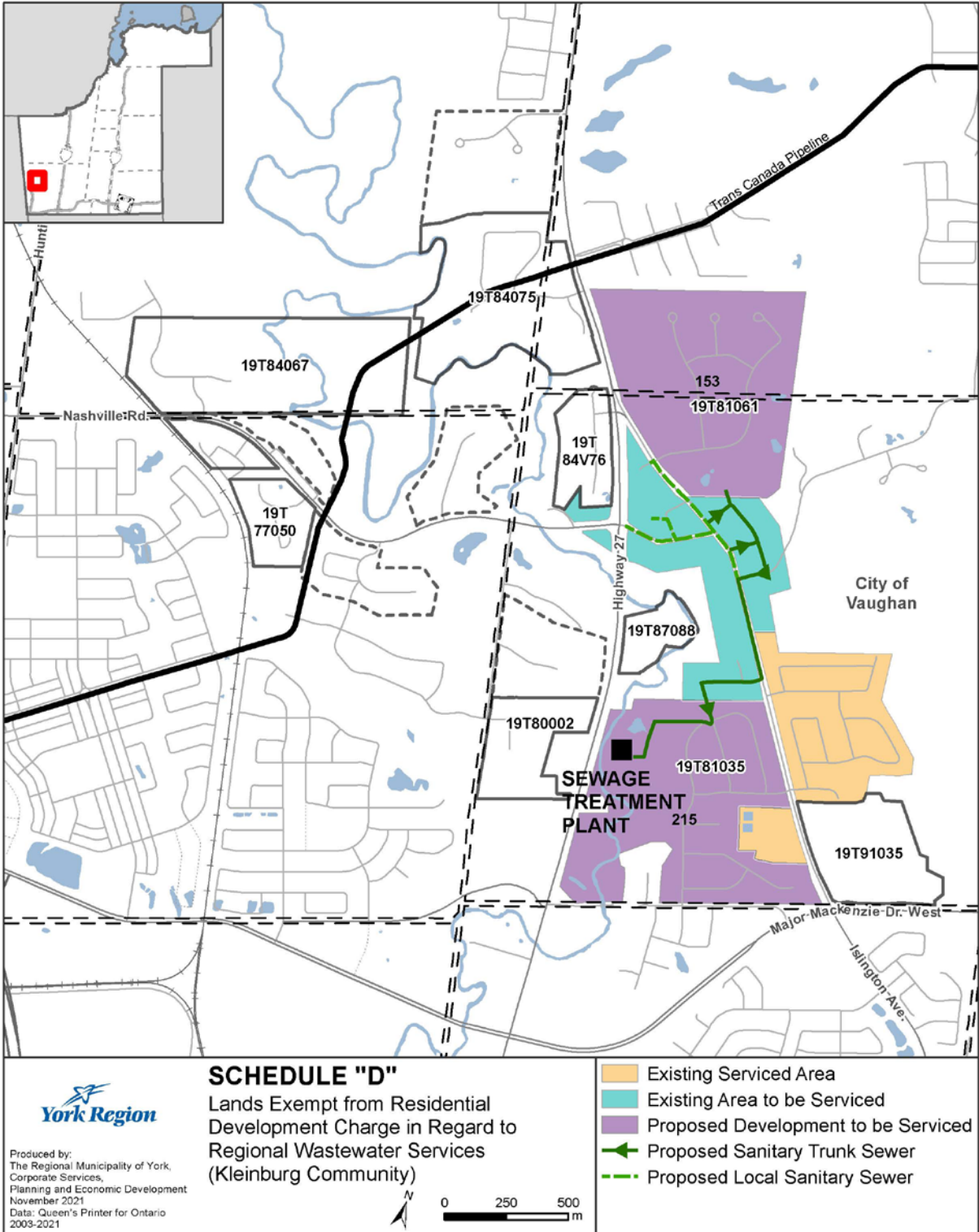
LANDS EXEMPT FROM RESIDENTIAL DEVELOPMENT CHARGE IN REGARD TO REGIONAL WATER SUPPLY SERVICES




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SCHEDULE D

LANDS EXEMPT FROM RESIDENTIAL DEVELOPMENT CHARGE IN REGARD TO REGIONAL WASTEWATER SERVICES (KLEINBURG COMMUNITY)




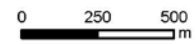


Produced by:
The Regional Municipality of York,
Corporate Services,
Planning and Economic Development
November 2021
Data: Queen's Printer for Ontario
2003-2021

SCHEDULE "D"

Lands Exempt from Residential
Development Charge in Regard to
Regional Wastewater Services
(Kleinburg Community)

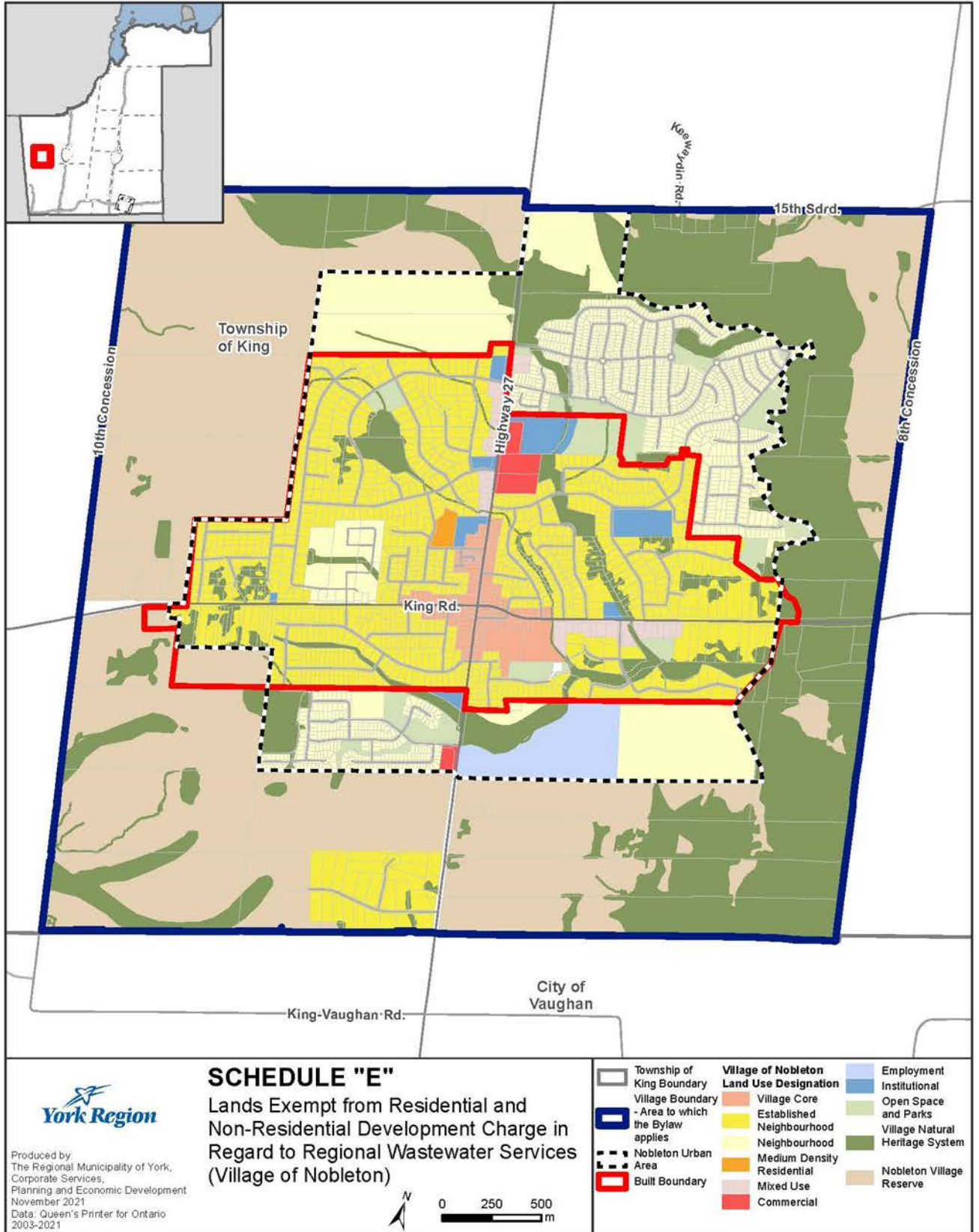
- Existing Served Area
- Existing Area to be Served
- Proposed Development to be Served
- Proposed Sanitary Trunk Sewer
- Proposed Local Sanitary Sewer

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SCHEDULE E

LANDS EXEMPT FROM RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES IN REGARD TO REGIONAL WASTEWATER SERVICES (VILLAGE of NOBLETON)



**SCHEDULE F
NON-RESIDENTIAL DEVELOPMENT CHARGES**

June 17 2022 to June 16 2027						
Service	(\$ per sqft)			(\$ per sqm)		
	Retail	Industrial/ Office/ Institutional	Hotel	Retail	Industrial/ Office/ Institutional	Hotel
Hard Services						
Water	4.22	2.79	0.91	45.42	30.03	9.80
Wastewater	9.9	6.58	2.13	106.56	70.83	22.93
Roads	27.39	8.57	4.53	294.82	92.25	48.76
Subtotal Hard Services	41.51	17.94	7.57	446.81	193.10	81.48
General Services						
Transit	7.90	2.54	1.36	85.03	27.34	14.64
Toronto-York Spadina Subway Extension	3.61	1.14	0.62	38.86	12.27	6.67
Yonge North Subway Extension	5.92	1.96	1.04	63.72	21.10	11.19
				0.00	0.00	0.00
Public Works	0.65	0.16	0.10	7.00	1.72	1.08
Waste Diversion	0.00	0.00	0.00	0.00	0.00	0.00
Police	0.67	0.44	0.14	7.21	4.74	1.51
Housing Services	0.00	0.00	0.00	0.00	0.00	0.00
Public Health	0.02	0.01	0.01	0.22	0.11	0.11
Ambulance Services	0.16	0.10	0.03	1.72	1.08	0.32
Growth Studies	0.13	0.09	0.03	1.40	0.97	0.32
Long Term Care/Seniors Services	0.00	0.00	0.00	0.00	0.00	0.00
Court Services	0.04	0.03	0.01	0.43	0.32	0.11
Subtotal General Services	19.1	6.47	3.34	205.59	69.64	35.95
Total	60.61	24.41	10.91	652.40	262.75	117.43

*Village of Nobleton is excluded in this table and is subject to a separate charge for Wastewater Treatment Services. Numbers may not add up due to rounding.

SCHEDULE G
CONTINGENT RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES

Project Number	Project Description	Scheduled Increase	Residential Development Charges (\$ per Unit)				Non-residential Development Charges (\$ per sqft)		
			Single and Semi-detached	Multiple Unit Dwelling	Large Apartment (>=700 sqft)	Small Apartment (<700 sqft)	Retail	Industrial/Office/Institutional	Hotel
1	Highway 404 Interchange at 19th Avenue	The local municipality transfers responsibility of 19th Avenue between Leslie Street and Woodbine Avenue to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	415	345	268	174	0.42	0.14	0.07
2	Midblock Crossing - Highway 400 north of Rutherford Road	Approval of a local official plan amendment, secondary plan, or development area plan for the redevelopment of, or portion of, the Canada's Wonderland property, or identification of any other transportation analysis, as deemed warranted by the Region of York, identifying the need for the crossing.	171	142	110	72	0.17	0.06	0.03
3	Midblock Crossing - Highway 400 south of Highway 7 (Regional	City of Vaughan's commitment to construct the crossing and inclusion in the capital program.	406	338	262	171	0.41	0.14	0.07

Project Number	Project Description	Scheduled Increase	Residential Development Charges (\$ per Unit)				Non-residential Development Charges (\$ per sqft)		
			Single and Semi-detached	Multiple Unit Dwelling	Large Apartment (>=700 sqft)	Small Apartment (<700 sqft)	Retail	Industrial/ Office/ Institutional	Hotel
	Share)								
4	Langstaff Road - Jane Street to Keele Street	A two-part trigger as follows: <ul style="list-style-type: none"> • Approval of an Environmental Assessment • Regional Council funding commitment to implement the project 	2,020	1,680	1,304	848	2.05	0.68	0.36
5	Elgin Mills Road - Woodbine Avenue to Warden Avenue	The local municipality transfers jurisdiction of this section of road to York Region and York Region adopts an Official Plan Amendment and/or amends the regional Roads Consolidation Bylaw as required.	107	89	69	45	0.11	0.04	0.02
6	Elgin Mills Road - Warden Avenue to Kennedy Road	The local municipality transfers jurisdiction of this section of road to York Region and York Region adopts an Official Plan Amendment and/or amends the regional Roads Consolidation Bylaw as required.	107	89	69	45	0.11	0.04	0.02

Project Number	Project Description	Scheduled Increase	Residential Development Charges (\$ per Unit)				Non-residential Development Charges (\$ per sqft)		
			Single and Semi-detached	Multiple Unit Dwelling	Large Apartment (>=700 sqft)	Small Apartment (<700 sqft)	Retail	Industrial/ Office/ Institutional	Hotel
7	Elgin Mills Road - Kennedy Road to McCowan Road	The local municipality transfers jurisdiction of this section of road to York Region and York Region adopts an Official Plan Amendment and/or amends the regional Roads Consolidation Bylaw as required.	196	163	126	82	0.20	0.07	0.03
8	Elgin Mills Road - McCowan Road to Highway 48	The local municipality transfers jurisdiction of this section of road to York Region and York Region adopts an Official Plan Amendment and/or amends the regional Roads Consolidation Bylaw as required.	109	91	70	46	0.11	0.04	0.02
9	Kirby Road - Weston Road to Jane Street	The local municipality transfers jurisdiction of this section of road to York Region and York Region adopts an Official Plan Amendment and/or amends the regional Roads Consolidation Bylaw as required.	402	334	259	169	0.41	0.13	0.07

Project Number	Project Description	Scheduled Increase	Residential Development Charges (\$ per Unit)				Non-residential Development Charges (\$ per sqft)		
			Single and Semi-detached	Multiple Unit Dwelling	Large Apartment (>=700 sqft)	Small Apartment (<700 sqft)	Retail	Industrial/ Office/ Institutional	Hotel
10	Kirby Road - Jane Street to Keele Street	The local municipality transfers jurisdiction of this section of road to York Region and York Region adopts an Official Plan Amendment and/or amends the regional Roads Consolidation Bylaw as required.	110	92	71	46	0.11	0.04	0.02
11	Kirby Road - Keele Street to Dufferin Street	The local municipality transfers jurisdiction of this section of road to York Region and York Region adopts an Official Plan Amendment and/or amends the regional Roads Consolidation Bylaw as required.	99	83	64	42	0.10	0.03	0.02
12	19th Avenue - Leslie Street to Woodbine Avenue	The local municipality transfers jurisdiction of this section of road to York Region and York Region adopts an Official Plan Amendment and/or amends the regional Roads Consolidation Bylaw as required.	388	323	250	163	0.39	0.13	0.07

Project Number	Project Description	Scheduled Increase	Residential Development Charges (\$ per Unit)				Non-residential Development Charges (\$ per sqft)		
			Single and Semi-detached	Multiple Unit Dwelling	Large Apartment (>=700 sqft)	Small Apartment (<700 sqft)	Retail	Industrial/ Office/ Institutional	Hotel
13	19th Avenue - Woodbine Avenue to Warden Avenue	The local municipality transfers jurisdiction of this section of road to York Region and York Region adopts an Official Plan Amendment and/or amends the regional Roads Consolidation Bylaw as required.	82	68	53	34	0.08	0.03	0.01
14	Langstaff Road - Weston Road to Jane Street	Commitment by the York Region to construct the road link of Langstaff Road between Jane Street to Keele Street.	236	197	153	99	0.24	0.08	0.04
15	Langstaff Road - Keele Street to Dufferin Street	Commitment by the York Region to construct the road link of Langstaff Road between Jane Street to Keele Street.	174	145	113	73	0.18	0.06	0.03
16	Steeles Avenue - Jane Street to Kennedy Road (YR Share)	TBDA two-part trigger as follows: - York Region executes an agreement with the City of Toronto to cost share works on Steeles Avenue west of Kennedy Road - Commitment by senior levels of government to partner with the Region of York and the City of Toronto to construct rapid transit on Steeles Avenue	437	364	282	184	0.44	0.15	0.08

**SCHEDULE H
CALCULATION OF DEVELOPMENT CHARGE CREDITS PROVIDED TO
DERELICT BUILDINGS**

Number of Months From Date of Demolition Permit to Date of Building Permit Issuance	Credit Provided (%) ¹
Up to and including 48 months	100
Greater than 48 months up to and including 72 months	75
Greater than 72 months up to and including 96 months	50
Greater than 96 months up to and including 120 months	25
Greater than 120 months	0

¹ Credits are calculated as a percentage of the prevailing development charge rates for the class of non-residential development or type of dwelling demolished.