2024 Development Charges Background Study

City of Burlington

For Public Circulation and Comment

March 22, 2024

Watson & Associates Economists Ltd.,
in association with Dillon Consulting Limited
905-272-3600
info@watsonecon.ca

Table of Contents

Page

Executive Summary ..... **i**

1. Introduction **1-1**
- 1.1 Purpose of this Document 1-1
- 1.2 Summary of the Process 1-2
- 1.3 Changes in the Development Charges Act, 1997 1-3
  - 1.3.1 More Homes for Everyone Act, 2022 1-4
  - 1.3.2 More Homes Built Faster Act, 2022 1-5
  - 1.3.3 Helping Homebuyers, Protecting Tenants Act, 2023 1-8
  - 1.3.4 Affordable Homes and Good Jobs Act, 2023 1-8

2. City of Burlington Current D.C. Policy **2-1**
- 2.1 Schedule of Charges 2-1
- 2.2 Services Covered 2-1
- 2.3 Timing and D.C. Calculation and Payment 2-3
- 2.4 Redevelopment Credits 2-3
- 2.5 Exemptions 2-4
- 2.6 Phase-in of Development Charges 2-5

3. Anticipated Development in the City of Burlington **3-1**
- 3.1 Requirements of the Act 3-1
- 3.2 Basis of Population, Household and Non-Residential Gross Floor Area Forecast 3-1
- 3.3 Summary of Growth Forecast 3-2

4. Approach to the Calculation of the Charge **4-1**
- 4.1 Introduction 4-1
- 4.2 Services Potentially Involved 4-1
- 4.3 Increase in Need for Service 4-1
- 4.4 Local Service Policy 4-5
- 4.5 Capital Forecast 4-5

Table of Contents (Cont'd)

Page

4.6 Treatment of Credits 4-6
4.7 Existing Reserve Funds 4-7
4.8 Deductions 4-8
4.8.1 Reduction Required by Level of Service Ceiling 4-8
4.8.2 Reduction for Uncommitted Excess Capacity 4-9
4.8.3 Reduction for Benefit to Existing Development 4-9
4.8.4 Reduction for Anticipated Grants, Subsidies, and Other Contributions 4-11
4.9 Municipal-wide vs. Area-Specific 4-11
4.10 Allocation of Development 4-11

5. D.C. Eligible Cost Analysis by Service 5-1
5.1 Introduction 5-1
5.2 Service Levels and 28-Year Capital Costs for City-wide D.C. Calculation 5-1
5.2.1 Services Related to a Highway 5-1
5.2.2 Stormwater Drainage Services 5-3
5.3 Service Levels and 10-Year Capital Costs for City-wide D.C. Calculation 5-13
5.3.1 Fire Protection Services 5-13
5.3.2 Parks and Recreation Services 5-14
5.3.3 Library Services 5-15
5.4 Transit Services 5-16

6. D.C. Calculation 6-1

7. D.C. Policy Recommendations and D.C. By-law Rules 7-1
7.1 Introduction 7-1
7.2 D.C. By-law Structure 7-2
7.3 D.C. By-law Rules 7-2
7.3.1 Payment in any Particular Case 7-2
7.3.2 Determination of the Amount of the Charge 7-2
7.3.3 Application to Redevelopment of Land (Demolition and Conversion) 7-3
7.3.4 Exemptions (Full or Partial) 7-3
7.3.5 Lot Coverage Relief 7-5
7.3.6 Mandatory Phasing In 7-5
7.3.7 Timing of Collection 7-5
7.3.8 Indexing 7-6
7.3.9 D.C. Spatial Applicability 7-6
7.4 Other D.C. By-law Provisions 7-8

Table of Contents (Cont'd)

Page

7.4.1 Categories of Services for Reserve Fund and Credit Purposes 7-8
7.4.2 By-law In-force Date 7-8
7.4.3 Minimum Interest Rate Paid on Refunds and Charged for Inter-Reserve Fund Borrowing 7-8
7.5 Other Recommendations 7-8

8. Asset Management Plan 8-1
8.1 Introduction 8-1
8.2 Non-Transit City Services 8-3
8.3 Transit Services 8-5
8.3.1 State of Local Infrastructure 8-5
8.3.2 Levels of Service 8-6
8.3.3 Asset Management Strategy 8-7
8.3.4 Financing Strategy 8-8

9. By-law Implementation 9-1
9.1 Public Consultation 9-1
9.1.1 Public Meeting of Council 9-1
9.1.2 Other Consultation Activity 9-1
9.2 Anticipated Impact of the Charge on Development 9-2
9.3 Implementation Requirements 9-3
9.3.1 Notice of Passage 9-3
9.3.2 By-law Pamphlet 9-3
9.3.3 Appeals 9-4
9.3.4 Complaints 9-4
9.3.5 Credits 9-4
9.3.6 Front-Ending Agreements 9-5
9.3.7 Severance and Subdivision Agreement Conditions 9-5

Appendix A Background Information on Residential and Non-Residential Growth Forecast A-1

Appendix B Historical Level of Service Calculations B-1

Appendix C Technical Appendix for Services Related to a Highway C-1

Appendix D Technical Appendix for Transit Services D-1

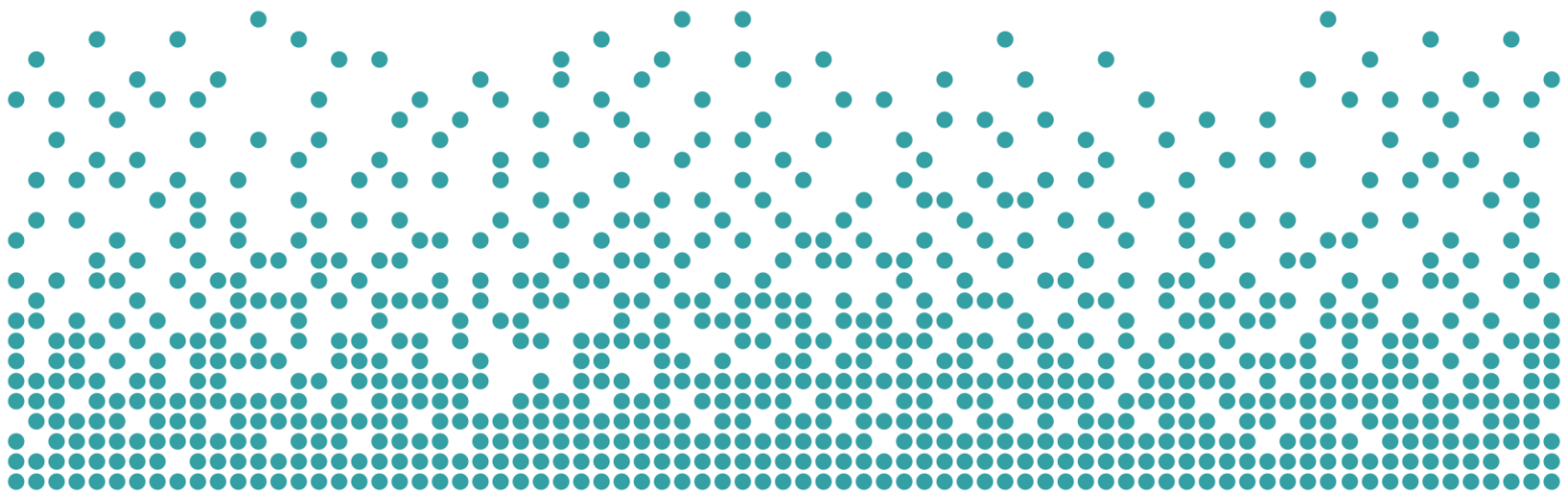
Appendix E Long-Term Capital and Operating Cost Examination E-1

Appendix F Local Service Policy F-1

Appendix G Proposed D.C. By-Law G-1

List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
A.M.P.	Asset Management Plan
D.C.	Development charge
D.C.A.	Development Charges Act, 1997
G.F.A.	Gross floor area
L.P.A.T.	Local Planning Appeal Tribunal
N.A.I.C.S.	North American Industry Classification System
N.F.P.O.W.	No Fixed Place of Work
O.M.B.	Ontario Municipal Board
O.P.A.	Official Plan Amendment
O.Reg.	Ontario Regulation
P.O.A.	Provincial Offences Act
P.P.U.	Persons per unit
S.D.E.	Single detached equivalent
S.D.U.	Single detached unit
s.s.	Subsection
sq.ft.	square foot
sq.m.	square metre



Executive Summary

Executive Summary

a) The report provided herein represents the Development Charges (D.C.) Background Study for the City of Burlington (City) required by the *Development Charges Act, 1997,* as amended (D.C.A.). This report has been prepared in accordance with the methodology required under the D.C.A. The contents include the following:

- Chapter 1: Introduction and an overview of the legislative requirements of the D.C.A.;
- Chapter 2: Review of the City's current D.C. policies;
- Chapter 3: Summary of the anticipated development for the City;
- Chapter 4: Approach to calculating the D.C.;
- Chapter 5: Review of the historical level of service, increase in need for services, identification of future capital costs to service the anticipated development, and related deductions and allocations;
- Chapter 6: Calculation of the D.C.s;
- Chapter 7: D.C. policy recommendations and rules;
- Chapter 8: Asset Management Plan; and
- Chapter 9: By-law Implementation.

b) D.C.s provide for the recovery of growth-related capital expenditures from new development. The D.C.A. is the statutory basis to impose these charges. The methodology required to determine the charges is detailed in Chapter 4; a simplified summary is provided below:

1. Identify amount, type, and location of the anticipated development;
2. Identify the increase in need for service to accommodate the anticipated development;
3. Identify the capital costs to provide services to meet the increase in needs;
4. Deduct:
    - Grants, subsidies, and other contributions;
    - Benefit to existing development; and
    - Amounts in excess of 15-year historical service calculation;

5. Net D.C. recoverable capital costs are then allocated between residential and non-residential development types; and
6. Net D.C. recoverable costs are divided by the anticipated development to provide the D.C.

c) The City passed it's current D.C. By-law in 2019. By-Law 29-2019 came into effect on June 1, 2019 and the City's "2019 Development Charges Background Study" dated March 28, 2019 provided the supporting documentation for the D.C. By-law.

d) Subsequent to the passage of the City's 2019 D.C. By-law, a number of amendments to the D.C.A. have taken place. The City amended By-Law 29-2019 in 2022, by passing By-law 26-2022, to update capital cost estimates and reflect the legislative amendments at that time. These amendments are contained in the City's "Development Charge Update Study" dated January 21, 2022. Chapter 1 of this background study provides a summary of legislative changes since that time. These changes have been incorporated throughout the report and in the draft by-laws, as necessary. The legislative Acts that have amended the D.C.A. include the following:

- Bill 109: *More Homes for Everyone Act, 2022*
- Bill 23: *More Homes Built Faster Act, 2022*
- Bill 97: *Helping Homebuyers, Protecting Tenants Act, 2023*
- Bill 134: *Affordable Homes and Good Jobs Act, 2023*

Details of each Act are provided in Chapter 1 of this report.

e) The City is undertaking a D.C. public process and anticipates passing new D.C. by-laws for each service identified in this D.C. Background Study. The mandatory public meeting has been set for May 14, 2024, with adoption of the D.C. by-laws anticipated for May 21, 2024. This will allow for the imposition of the new charges on June 1, 2024, when the current D.C. by-law expires.

f) In accordance with the methodology summarized above, Table ES-1 outlines the net population increase, residential unit increase, non-residential Gross Floor Area (G.F.A.) increase, and non-residential employment increase for the 10-year (2024 to 2033) and 28-year (2024 to 2051) forecast periods. The growth forecast is further detailed in Chapter 3 and Appendix A.

Table ES-1
City of Burlington
Summary of Anticipated Development for City-wide D.C.

Measure	10 Year 2024-2033	28 Year 2024-2051
(Net) Population Increase	22,617	68,962
Residential Unit Increase	11,520	34,450
Non-Residential Gross Floor Area Increase (sq.m.)	193,906	695,661
Non-Residential Employment Increase	5,494	19,408

g) In consideration of the basis for the increase in need for service, Services Related to a Highway and Storm Drainage Services are calculated based on a City-wide 28-year growth forecast. The remaining D.C. eligible services considered in the background study, as follows, are calculated based on a City-wide 10-year growth forecast:

- Fire Protection Services
- Transit Services
- Parks and Recreation Services
- Library Services

h) Table ES-2 summarizes the total D.C. eligible capital costs arising from the increase in need for services attributable to the anticipated development for each eligible service. Capital projects, cost estimates and the required deductions for each service are detailed further in Chapter 5.

In total, gross capital costs of approximately $791.1 million have been identified expressions of Council to address the increase in need for service attributable to development. These expressions include various Master Plans (including the Integrated Mobility Plan, Parks Provisioning Master Plan, Parks & Forestry/Transit Campus Master Plan, and Fire Master Plan), the City's 2024 Capital Budget and Forecast, the Multi-Year Community Investment Plan, Transit 5-Year Business Plan, and prior City D.C. Background Studies.

Approximately $8.7 million of the gross capital cost estimate is related to the needs of future growth beyond the 10-year forecast period included in the D.C. calculation for Fire Protection Services and Transit Services. These capital costs

will be considered in future D.C. Background Studies as committed excess capacity. In addition, $193.8 million of the gross cost relates to the portion of capital projects that will benefit the existing community, including the anticipated population increase in existing households over the forecast period. Finally, deductions related to grants, subsidies, and other contributions in the amount of $9.9 million have been made to only include anticipated City costs in the calculation of the charge.

The resultant net growth-related costs included in the D.C. calculations, after accounting for current D.C. reserve fund balances, is approximately $544.7 million. This represents approximately 69% of the gross capital costs.

The D.C.A. requires a summary be provided of the gross capital costs and the net costs to be recovered over the life of the by-laws (i.e., 10-years). This calculation is provided by service and is presented in Table 6-4 in Chapter 6. In total, approximately $143.0 million (26%) of the D.C. recoverable costs are anticipated to occur during the by-law term.

i) This background study has undertaken a calculation of the charges based on future identified needs, as presented in Table ES-2. Table ES-3 provides a schedule of D.C.s for residential and non-residential development based on these needs. The charges are provided on a City-wide basis for all services consistent with the City's current by-law. The residential charges are imposed by dwelling unit type, and the non-residential charges are imposed on a uniform basis, inclusive of all retail and non-retail development types.

The full calculated DC for a single and semi-detached residential dwelling unit is $28,432. Apartments with 2 bedrooms or more would pay a lower charge of $15,150 per dwelling units. This lower charge reflects a lower occupancy in higher density dwelling units. The non-residential charge is $205.70 per sq.m. of gross floor area (G.F.A.).

Table ES-2
City of Burlington
Summary of Anticipated Increase in Need for Service and D.C. Recoverable Capital Costs
By Service

Service/Class	Total Gross Cost	Tax Base or Other Non-D.C. Source		Post D.C. Period Benefit	Sources of Financing		
					D.C. Reserve Fund		
		Benefit to Existing	Other Funding		Existing Reserve Funds	Residential	Non-Residential
1 Services Related to a Highway							
1.1 Roads, Bridges and Culverts, Traffic Signals, Streetlights, Domes and Depots	604,647,558	93,369,122	5,363,833	-	26,054,244	365,486,614	114,373,745
2 Stormwater Drainage Services							
2.1 Storm Drainage Services	32,172,662	24,043,038	-	-	2,784,316	3,228,692	2,116,617
3 Fire Protection Services							
3.1 Fire facilities, vehicles, small equipment and gear	28,845,394	9,410,057	-	3,359,199	232,590	12,643,607	3,199,940
4 Parks and Recreation Services							
4.1 Park development, recreation facilities	35,864,840	3,680,596	-	-	2,790,580	27,814,181	1,579,483
5 Library Services							
5.1 Library facilities, materials, vehicles & equipment	2,562,103	346,061	-	-	538,064	1,587,811	90,167
6 Transit Services							
6.1 Transit Services	86,960,000	62,968,589	4,556,746	5,328,600	1,529,711	10,036,293	2,540,061
Total Expenditures & Revenues	**$791,052,556**	**$193,817,463**	**$9,920,579**	**$8,687,799**	**$33,929,505**	**$420,797,197**	**$123,900,013**

Table ES-3
City of Burlington
Calculated Schedule of Development Charges

Service/Class of Service	RESIDENTIAL						NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Multiples - 3 or more Bedrooms	Multiples - 1 or 2 Bedrooms	Special Care/Special Dwelling Units	(per sq.m of Gross Floor Area)
Municipal Wide Services/Class of Service:							
Services Related to a Highway	19,864	10,585	8,003	15,759	11,349	6,468	164.47
Stormwater Drainage Services	175	93	71	139	100	57	3.01
Fire Protection Services	2,038	1,086	821	1,617	1,164	664	16.47
Transit Services	1,617	862	651	1,283	924	527	13.13
Parks and Recreation Services	4,482	2,388	1,806	3,556	2,561	1,460	8.18
Library Services	256	136	103	203	146	83	0.43
TOTAL - Full Calculated Rate	**28,432**	**15,150**	**11,455**	**22,557**	**16,244**	**9,259**	**205.70**

j) The D.C.A. requires that charges imposed under a new by-law be phased-in over a 5-year period, as follows:

- Year 1 – 80% of the maximum charge;
- Year 2 – 85% of the maximum charge;
- Year 3 – 90% of the maximum charge;
- Year 4 – 95% of the maximum charge; and
- Year 5 to expiry – 100% of the maximum charge.

k) The City-wide D.C. currently in effect under By-law 29-2019, as amended, represents 85% of the full calculated D.C. provided in the City's 2022 D.C. Update Study, due to the mandatory phase-in. To provide an accurate comparison of the impact of the calculated charges that could be imposed on June 1, 2024, we have indexed the current charges (as permitted under the by-law[1]) and adjusted the phase-in to the Year 3 amount (i.e. 90% of the maximum charge). We have also adjusted the full calculated rates provided in Table ES-3 to the permitted Year 1 amount (i.e. 80% of the maximum charge). Table ES-4 provides a comparison for D.C.s for a residential apartment dwelling with 2 or more bedrooms. Tables ES-5 and ES-6 provide a comparison for retail and non-retail non-residential development types.

[1] Estimated at 5.5% based on the recently published index.

l) The City-wide D.C. currently in effect for residential apartment dwelling with 2 or more bedrooms is $9,235/unit. As summarized in Table ES-4, the comparable charge on June 1, 2024 is estimated to be $10,316/unit with indexing and phasing. The calculated charge with phasing is $12,120/unit. The calculated increase in the charge for this dwelling unit type is $1,804/unit, or an increase in the charge of approximately 17%.

Table ES-4
City of Burlington
Comparison of June 1, 2024 D.C. for Large Apartment Dwelling Units
($/dwelling unit)

DEVELOPMENT CHARGES WITH PHASE-IN	Current Rate (with phase-in)	Current Rate (with assumed April index, with phase-in)	Calculated Rate (with phase-in)	Difference	Percentage Change
Municipal Wide Services/Classes:					
Services Related to a Highway	4,667	5,213	8,468	3,255	
Stormwater Drainage Services	951	1,063	74	(988)	
Fire Protection Services	98	110	869	759	
Transit Services	376	420	690	270	
Parks and Recreation Services	2,695	3,011	1,910	(1,101)	
Library Services	431	482	109	(373)	
Studies	17	18	-	(18)	
Total Municipal Wide Services/Classes	**9,235**	**10,316**	**12,120**	**1,804**	**17%**

m) The City currently imposed separate non-residential charges for retail and non-retail developments. This is based on prior D.C. background study assumptions of greater transportation needs for retail development as compared to non-retail development. This background study proposes to impose a uniform non-residential charge based on the anticipated transportation needs in the City's Integrated Mobility Plan.

n) The City-wide D.C. currently in effect for retail non-residential development is $162.96/sq.m. As summarized in Table ES-5, the comparable charge on June 1, 2024 is estimated to be $182.04/sq.m with indexing and phasing. The calculated charge with phasing is $164.56/sq.m. The calculated decrease in the charge for this type of development is $17.48/sq.m, or a reduction in the charge of approximately 10%.

Table ES-5
City of Burlington
Comparison of June 1, 2024 D.C. for Retail Development
($/sq.m)

RETAIL - DEVELOPMENT CHARGES WITH PHASE-IN	Current Rate (with phase-in)	Current Rate (with assumed April index, with phase-in)	Calculated Rate (with phase-in)	Difference	Percentage Change
Municipal Wide Services/Classes:					
Services Related to a Highway	144.11	160.98	131.58	(29.40)	
Stormwater Drainage Services	5.91	6.60	2.41	(4.19)	
Fire Protection Services	1.96	2.19	13.18	10.98	
Transit Services	7.67	8.57	10.51	1.94	
Parks and Recreation Services	2.56	2.86	6.54	3.68	
Library Services	0.41	0.46	0.34	(0.12)	
Studies	0.33	0.37	-	(0.37)	
Total Municipal Wide Services/Classes	**162.96**	**182.04**	**164.56**	**(17.48)**	**-10%**

o) The City-wide D.C. currently in effect for non-retail non-residential development (i.e. office, service commercial, industrial and non-exempt institutional) is $92.37/sq.m. As summarized in Table ES-6, the comparable charge on June 1, 2024 is estimated to be $103.18/sq.m with indexing and phasing. The calculated charge with phasing is $164.56/sq.m. The calculated increase in the charge for this type of development is $61.38/sq.m, or an increase in the charge of approximately 59%.

Table ES-6
City of Burlington
Comparison of June 1, 2024 D.C. for Non-Retail Development
($/sq.m)

NON-RETAIL - DEVELOPMENT CHARGES WITH PHASE-IN	Current Rate (with phase-in)	Current Rate (with assumed April index, with phase-in)	Calculated Rate (with phase-in)	Difference	Percentage Change
Municipal Wide Services/Classes:					
Services Related to a Highway	73.52	82.13	131.58	49.45	
Stormwater Drainage Services	5.91	6.60	2.41	(4.19)	
Fire Protection Services	1.96	2.19	13.18	10.98	
Transit Services	7.67	8.57	10.51	1.94	
Parks and Recreation Services	2.56	2.86	6.54	3.68	
Library Services	0.41	0.46	0.34	(0.12)	
Studies	0.33	0.37	-	(0.37)	
Total Municipal Wide Services/Classes	**92.37**	**103.18**	**164.56**	**61.38**	**59%**

p) Chapter 7 herein, provides the policy recommendations and rules that govern the imposition of the charges. Council will consider the findings and recommendations provided herein and, in conjunction with public input, approve such policies and rates it deems appropriate. These directions will refine the draft D.C. by-laws for each service, which are appended in Appendix G herein. These decisions may include:

- Adopting the charges and policies recommended herein;
- Considering additional exemptions to the D.C. by-laws; and
- Considering reductions in the charge (obtained by removing certain services or capital costs on which the charge is based and/or by a general reduction in the charge).

As the D.C.A. does not allow for any exempted or reduced amount to be made up through higher D.C.s from other development, any such decision would require the consideration of an alternative (i.e., non-D.C.) funding source provided by the City.

Report

Chapter 1
Introduction

1. Introduction

1.1 Purpose of this Document

This Development Charges (D.C.) Background Study has been prepared for public comment. The study has been prepared pursuant to the requirements of section 10 of the *Development Charges Act, 1997* (D.C.A.), as amended, and recommends new D.C. rates and by-law policies for the City of Burlington (City) and Council's consideration.

The City retained Watson & Associates Economists Ltd. (Watson) to undertake this D.C. background study process in 2023. Dillon Consulting Limited (Dillon) was retained as a sub-consultant to Watson during the process to undertake the Services Related to a Highway and Transit Services components of the study process. Watson, in association with Dillon, worked with City staff in preparing the D.C. analysis and policy recommendations herein.

This D.C. background study will be distributed to members of the public in order to provide interested parties with sufficient background information on the legislation, the background study findings and recommendations, and the draft D.C. by-law. The consulting team will continue to work with City staff to further refine the D.C. background study (as required) based on public feedback. The final D.C. Background Study will be provided to the City prior to Council's consideration and adoption of the by-law.

This report has been prepared, in the first instance, to meet the statutory requirements applicable to the City's D.C. background study, as summarized in Chapter 4. It begins by addressing the forecast amount, type, and location of growth as detailed in Chapter 3 and Appendix A. Further, Chapter 5 provides the increase in need for service attributable to development and the associated capital cost estimates. These D.C. recoverable costs provide the basis for the D.C. calculations included in Chapter 6. The D.C. Background Study also addresses the requirements for "rules" to govern the imposition of the charge (contained in Chapter 7) and an asset management plan for the City asset (in Chapter 8). The proposed D.C. by-law for the applicable services is made available as part of the approval process and is included in Appendix G herein.

For context, the background study also includes a summary of the City's current D.C. rates and policies in Chapter 2. This provides a comparison of the rates and policies

being proposed. It further addresses post-adoption implementation requirements (Chapter 9) which are critical to the successful application of the new policy.

The chapters in the report are supported by Appendices containing the data required to explain and substantiate the calculation of the charges.

1.2 Summary of the Process

The public meeting required under section 12 of the D.C.A., as amended, has been scheduled for May 14, 2024. Its purpose is to present the background study and draft by-law to the public to solicit their input and to answer any questions. In advance of the statutory public meeting, the D.C. Background Study and proposed D.C. by-law will be available for public review on March 22, 2024.

The process to be followed in finalizing the D.C. Background Study and recommendations includes:

- Consideration of responses received prior to, at, or immediately following the public meeting;
- Refinements to the background study by addendum, if required; and
- Council consideration of the by-law subsequent to the public meeting.

Figure 1-1 outlines the proposed schedule to be followed with respect to the D.C. by-law adoption process.

Figure 1-1
Schedule of Key D.C. Process Dates

Process Steps	Dates
Data collection, growth forecast development, staff review, engineering work, D.C. calculations and policy work	April 2023 through Winter 2024
City Strategy Committee Meetings	February 26, 2024 & April 17, 2024
Consultation Committee Meetings	March 8, 2024 & April 4, 2024
Public release of the D.C. Background Study and proposed by-law(s)	March 22, 2024
Public meeting advertisement placed in newspaper(s)	By 20 clear-days prior to the Public Meeting
Public meeting of Council	May 14, 2024
Council considers adoption of the D.C. Background Study and passage of by-law(s)	May 21, 2024
Newspaper notice given of by-law passage	By 20 days after passage
Last day for by-law appeal	40 days after passage
City makes D.C. pamphlet available	By 60 days after in force date

1.3 Changes in the Development Charges Act, 1997

Over the past four years, a number of changes to the D.C.A. have been introduced through various legislation including the following:

- *More Homes, More Choice Act, 2019;*
- *Plan to Build Ontario Together Act, 2019;*
- *COVID-19 Economic Recovery Act, 2020;*
- *Better for People, Smarter for Business Act, 2020;*
- *More Homes for Everyone Act, 2022;*
- *More Homes Built Faster Act, 2022; and*
- *Helping Homebuyers, Protecting Tenants Act, 2023*.

The City amended its current by-law in 2022, as contained in the City's "Development Charge Update Study" dated January 21, 2022. That D.C. background study and by-law addressed the legislative changes to that date. The following provides an overview of the amendments to the D.C.A. since.

1.3.1 More Homes for Everyone Act, 2022

On April 14, 2022, the *More Homes for Everyone Act, 2022* received Royal Assent. One of the D.C.A. amendments, and O. Reg. 438/22, prescribed additional information to be included in the annual Treasurer's Statement on D.C. reserve funds and its publication. The following additional information must be provided for each service for which a D.C. is collected for during the year:

a) whether, as of the end of the year, the municipality expects to incur the amount of capital costs that were estimated, in the relevant development charge background study, to be incurred during the term of the applicable development charge by-law;
b) if the answer to a) is no, the amount the municipality now expects to incur and a statement as to why this amount is expected; and
c) if no money was spent from the reserve fund during the year, a statement as to why there was no spending during the year.

These requirements have been further amended to require that the annual Treasurer's Statement be made available to the public on the municipality's website, or in the municipal office.

1.3.2 More Homes Built Faster Act, 2022

The *More Homes Built Faster Act, 2022*, received Royal Assent on November 28, 2022. This Act amends several pieces of legislation including the *Planning Act* and the D.C.A. The following provides a summary of the amendments to the D.C.A.:

1.3.2.1 Additional Residential Unit Exemption

The rules for these exemptions are now provided in the D.C.A., rather than the regulations and are summarized as follows:

- Exemption for residential units in existing rental residential buildings – For rental residential buildings with four or more residential units, the greater of one unit or 1% of the existing residential units will be exempt from D.C.
- Exemption for additional residential units in existing and new residential buildings – The following developments will be exempt from a D.C.:
    - A second unit in a detached, semi-detached, or rowhouse if all buildings and ancillary structures cumulatively contain no more than one residential unit;
    - A third unit in a detached, semi-detached, or rowhouse if no buildings or ancillary structures contain any residential units; and
    - One residential unit in a building or structure ancillary to a detached, semi-detached, or rowhouse on a parcel of urban land, if the detached, semi-detached, or rowhouse contains no more than two residential units and no other buildings or ancillary structures contain any residential units.

1.3.2.2 Removal of Housing as an Eligible D.C. Service

Housing Services is removed as an eligible service. Municipalities with by-laws that include a charge for housing services can no longer collect for this service.

1.3.2.3 New Statutory Exemptions for Affordable Units, Attainable Units, Inclusionary Zoning Units, and Non-Profit Housing Development

Affordable units, attainable units, inclusionary zoning units and non-profit housing developments are exempt from the payment of D.C.s, as follows:

- Affordable Rental Units:
    - The rent is no greater than the lesser of,

        - the income-based affordable rent for the residential unit set out in the Affordable Residential Units bulletin, as identified by the Minister of Municipal Affairs and Housing in accordance with subsection (5), and
        - the average market rent identified for the residential unit set out in the Affordable Residential Units bulletin.
- Affordable Owned Units:
    - The price of the residential unit is no greater than the lesser of,
        - the income-based affordable purchase price for the residential unit set out in the Affordable Residential Units bulletin, as identified by the Minister of Municipal Affairs and Housing in accordance with subsection (6), and
        - 90 per cent of the average purchase price identified for the residential unit set out in the Affordable Residential Units bulletin.
- Attainable Units: Excludes affordable units and rental units; will be defined as prescribed development or class of development and sold to a person who is at "arm's length" from the seller.
    - Note: for affordable and attainable units, the municipality shall enter into an agreement that ensures the unit remains affordable or attainable for 25 years. Also exemptions for affordable and attainable units will come into effect on a day to be named by proclamation of the Lieutenant Governor.
- Inclusionary Zoning Units: Affordable housing units required under inclusionary zoning by-laws are exempt from a D.C.

1.3.2.4 Historical Level of Service extended to 15-year period instead of the historical 10-year period

Prior to Royal Assent, the increase in need for service was limited by the average historical level of service calculated over the 10-year period preceding the preparation of the D.C. background study. This average is now extended to the historical 15-year period.

1.3.2.5 Revised Definition of Capital Costs

The definition of capital costs has been revised to remove studies. Further, the regulations to the Act will prescribe services for which land or an interest in land will be restricted. As at the time of writing, no services have been prescribed.

1.3.2.6 Mandatory Phase-in of a D.C.

For all D.C. by-laws passed after January 1, 2022, the charge must be phased-in annually over the first five years the by-law is in force, as follows:

- Year 1 – 80% of the maximum charge;
- Year 2 – 85% of the maximum charge;
- Year 3 – 90% of the maximum charge;
- Year 4 – 95% of the maximum charge; and
- Year 5 to expiry – 100% of the maximum charge.

1.3.2.7 D.C. By-law Expiry

A D.C. by-law now expires ten years after the day it comes into force unless the by-law provides for an earlier expiry or repeal date. This extends the by-law's life from what used to be a maximum of five (5) years.

1.3.2.8 Installment Payments

Non-profit housing development has been removed from the instalment payment section of the D.C.A. under Section 26.1, as these units are now exempt from the payment of a D.C.

1.3.2.9 Rental Housing Discount

The D.C. payable for rental housing development will be reduced based on the number of bedrooms in each unit as follows:

- Three or more bedrooms – 25% reduction;
- Two bedrooms – 20% reduction; and
- All other bedroom quantities – 15% reduction.

1.3.2.10 Maximum interest Rate for Instalments and Determination of Charge for Eligible Site Plan and Zoning By-law Amendment Application

No maximum interest rate was previously prescribed, which allowed municipalities to choose the interest rate to impose. As per Bill 23, the maximum interest rate is set at the average prime rate plus 1%. This maximum interest rate provision would apply to

all instalment payments and eligible site plan and zoning by-law amendment applications occurring after November 28, 2022.

1.3.2.11 Requirement to Allocate Funds Received

Annually, beginning in 2023, municipalities will be required to spend or allocate at least 60% of the monies in a reserve fund at the beginning of the year for water services, wastewater services, and services related to a highway. Other services may be prescribed by the regulation.

1.3.3 Helping Homebuyers, Protecting Tenants Act, 2023

The *Helping Homebuyers, Protecting Tenants Act* (Bill 97) received Royal Assent on June 8, 2023. This bill extends the mandatory exemption from payment of D.C.s for additional residential units in new residential buildings or in existing houses to all lands versus just urban lands.

1.3.4 Affordable Homes and Good Jobs Act, 2023

The *Affordable Homes and Good Jobs Act* (Bill 134) received Royal Assent on December 4, 2023. This bill updates the definition for Affordable Housing related to the residential units that will be exempt from the payment of D.C.s, as well as Community Benefits Charges and Parkland Dedication under the *Planning Act*. The new definition includes an income-based measure for both rental and owned affordable units.

Chapter 2
Current D.C. Policy

2. City of Burlington Current D.C. Policy

2.1 Schedule of Charges

The City passed By-law 29-2019 on May 27, 2019, under the authority of the D.C.A., to impose D.C.s on residential and non-residential developments. The D.C. By-Law was subsequently amended by By-law 26-2022 on March 22, 2022 to update capital cost estimates and reflect the legislative amendments to the D.C.A. at that time. The D.C. By-Law is set to expire on June 1, 2024, 5 years after its in force date.

2.2 Services Covered

The following services are covered under By-law 29-2019:

- Transportation
- Storm Drainage;
- Fire;
- Transit;
- Parks & Recreation;
- Library; and
- Studies.

The by-law provides for mandatory annual indexing of the charges on April 1st of each year. Table 2-1 provides the charges currently in effect, for residential and non-residential development types, as well as the breakdown of the charges by service. The charges are currently being phased-in over a five (5)-year period as per the D.C.A. and reflect the timing of amending By-Law 26-2022. As such, the current charges represent 85% of the full calculated charges (with indexing) as provided in the City's "Development Charge Update Study" dated January 21, 2022.

Table 2-1
City of Burlington
Schedule of Development Charges (as of April 1, 2023)

Service/Class of Service	Residential ($/dwelling unit)						Non-Residential ($/sq.m. of GFA)	
	Single & Semi Detached	Apartments with - 2 BR +	Apartments - Bachelor or 1 Bedroom	Multiples - 3 or more Bedrooms	Multiples - 1 or 2 Bedrooms	Special Care/Special Dwelling Units	Retail	Non-Retail
Services Related to a Highway	9,175	4,667	3,439	6,607	5,230	2,951	144.11	73.52
Stormwater Drainage Services	1,871	951	701	1,347	1,066	602	5.91	5.91
Fire Protection Services	193	98	72	138	110	61	1.96	1.96
Transit Services	740	376	278	533	422	238	7.67	7.67
Parks and Recreation Services	5,299	2,695	1,985	3,816	3,021	1,704	2.56	2.56
Library Services	848	431	318	611	483	273	0.41	0.41
Studies	34	17	12	22	19	11	0.33	0.33
Total City Wide Services/Class of Services	**18,159**	**9,235**	**6,804**	**13,074**	**10,351**	**5,839**	**162.96**	**92.37**

2.3 Timing and D.C. Calculation and Payment

D.C.s are due and payable in full to the City on the date the first building permit approving the construction of a foundation is issued for any land, buildings, or structures affected by the applicable D.C. The By-law also allows the City to enter into alternative payment agreements with owners.

The D.C. By-Law includes recent amendments to the D.C.A. that provide for mandatory installments payments of D.C.s for rental housing and institutional development in six equal annual installments, with the first payment commencing at the date of occupancy. Interest is charged on the installments, and any unpaid amounts may be added to the property and collected as taxes.

Furthermore, the D.C.s for development proceeding through the Site Plan or Zoning By-law Amendment planning approvals processes are calculated based on the rates in effect at the time of planning application, and payable at building permit issuance. This rule applies for planning applications of these types submitted on or after January 1, 2020, and where the building permit is issued within two years of a Site Plan or Zoning By-law Amendment planning approval. If the development is not proceeding via these planning approvals, or if the building permit is issued after the two-year period of application approval, then the amount is determined on the date of building permit issuance. Interest is charged from the date of determination of charges to building permit issuance, where planning applications meet the specific circumstances outlined above.

2.4 Redevelopment Credits

The by-law provides for D.C. credits for residential and non-residential redevelopments for buildings and/or structures demolished or converted from one principal use to another. The redevelopment credit is allowed only if the land was improved by occupied structures, and if the demolition permit has not been revoked. Additionally, redevelopment credits for residential buildings or structures is allowed only if the demolition permit related to the site was issued less than five (5) years prior to the issuance of a building permit.

No redevelopment credit is given with respect to the redevelopment, conversions, demolition, or change of use of a building or structure or part thereof where the existing building or structure or part thereof would have been exempt from D.C.s under the by-law. Moreover, the credit cannot exceed the amount of the D.C. that would otherwise be payable.

2.5 Exemptions

The City's existing D.C. by-law includes statutory exemptions from payment of D.C.s with respect to:

- Industrial additions of up to and including 50% of the existing gross floor area (G.F.A.) of the building – for industrial additions which exceed 50% of the existing G.F.A., only the portion of the addition in excess of 50% is subject to D.C.s;
- Buildings or structures owned by and used for the purposes of any municipality, local board or Board of Education;
- Residential development that results only in the creation of up to two additional dwelling units in prescribed classes of existing residential buildings or prescribed structures ancillary to existing residential buildings, subject to the prescribed restrictions set out in section 2(1) of O. Reg. 82/98;
- The creation of a second dwelling unit in prescribed classes of proposed new residential buildings, including structures ancillary to dwellings, subject to the prescribed restrictions set out in section 2(3) of O. Reg. 82/98;
- Non-profit housing development; and
- Land vested in or leased to a university that receives regular and ongoing operating funds from the government for the purposes of post-secondary education.

The D.C. by-law also provides non-statutory exemptions from payment of D.C.s with respect to:

- Hospitals, excluding any portion of the lands, buildings, or structures occupied by a tenant of the hospital;
- A Place of Worship;

- A conservation authority, unless such buildings or structures are used primarily for recreation purposes, and which the conservation authority charges admission and/or fees, or any retail purposes;
- Seasonal structures (including mobile homes unable to be occupied year-round);
- Facilities providing health and wellness services to senior citizens through programs administered by the Region of Halton or its affiliates;
- Agricultural uses;
- Hospices;
- Temporary venues; and
- A memorial home, clubhouse or athletic grounds of an Ontario branch of the Royal Canadian Legion, pursuant to paragraph 3 of section 3 of the *Assessment Act, R.S.O. 1990*, c. A.31.

2.6 Phase-in of Development Charges

As amending By-Law 26-2022 was passed after January 1, 2022, the charge must be phased-in annually over the first five years the by-law is in force, as follows:

- Year 1 (April 1, 2022 - March 31, 2023) – 80% of the maximum charge;
- Year 2 (April 1, 2023 - March 31, 2024) – 85% of the maximum charge;
- Year 3 (April 1, 2024 – March 31, 2025) – 90% of the maximum charge;
- Year 4 (April 1, 2025 – March 31, 2026) – 95% of the maximum charge; and
- Year 5 (commencing April 1, 2026) – 100% of the maximum charge.

Chapter 3
Anticipated Development in the City of Burlington

3. Anticipated Development in the City of Burlington

3.1 Requirements of the Act

The growth forecast contained in this chapter (with supplemental tables in Appendix A) provides for the anticipated development for which the City will be required to provide services over a 10-year (early-2023 to early-2033) and a longer-term (early-2023 to mid-2051) time horizon.

Chapter 4 provides the methodology for calculating a D.C. as per the D.C.A. Figure 4-1 presents this methodology graphically. It is noted in the first box of the schematic that in order to determine the D.C. that may be imposed, it is a requirement of subsection 5(1) of the D.C.A. that "the anticipated amount, type and location of development, for which development charges can be imposed, must be estimated."

3.2 Basis of Population, Household and Non-Residential Gross Floor Area Forecast

The D.C. growth forecast has been derived by Watson. In preparing the growth forecast, the following information sources were consulted to assess the residential and non-residential development potential for the City over the forecast period, including:

- Halton Region Official Plan, Interim Office Consolidation, November 4, 2022, which includes Regional Official Plan Amendment (R.O.P.A.) 48 and 49;
- Halton Region Official Plan Review: Integrated Growth Management Strategy;
- City of Burlington Official Plan, as Approved by Region of Halton, November 30, 2020, Interim Working Version February 2021;
- City of Burlington 2019 Development Charges Background Study Consolidated Report, March 28, 2019; by Watson & Associates Economists Ltd.;
- City of Burlington Community Benefits Charge Strategy, August 17, 2022; by Watson & Associates Economists Ltd.;
- 2011, 2016 and 2021 population, household and employment Census data;
- Historical residential building permit data over the 2013 to 2022 period;
- Residential and non-residential supply opportunities as identified by City staff and
- Discussions from City staff regarding anticipated residential and non-residential development in the City.

3.3 Summary of Growth Forecast

A detailed analysis of the residential and non-residential growth forecasts is provided in Appendix A and the methodology employed is illustrated in Figure 3-1. The discussion provided herein summarizes the anticipated growth for the City and describes the basis for the forecast. The results of the residential growth forecast analysis are summarized in Table 3-1 below, and Schedule 1 in Appendix A.

As identified in Table 3-1 and Appendix A – Schedule 1, population in the City of Burlington (excluding Census undercount) is anticipated to reach approximately 210,990 by early 2034 and 257,330 by 2051, resulting in an increase of approximately 22,620 and 68,960 persons, respectively.[2]

[2] The population figures used in the calculation of the 2024 D.C. exclude the net Census undercount, which is estimated at approximately 3.0%. Population figures presented herein have been rounded.

Figure 3-1
Population and Household Forecast Model

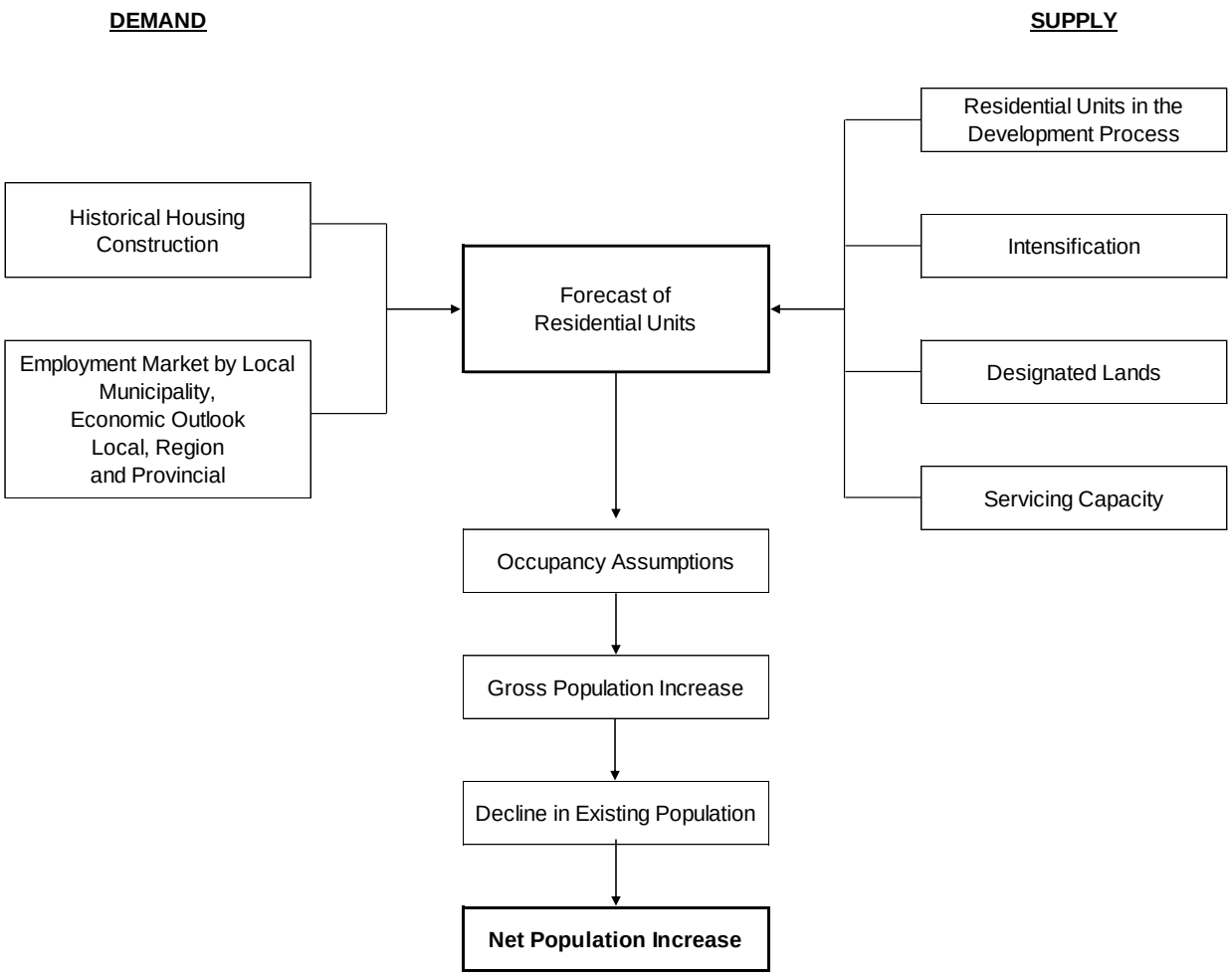


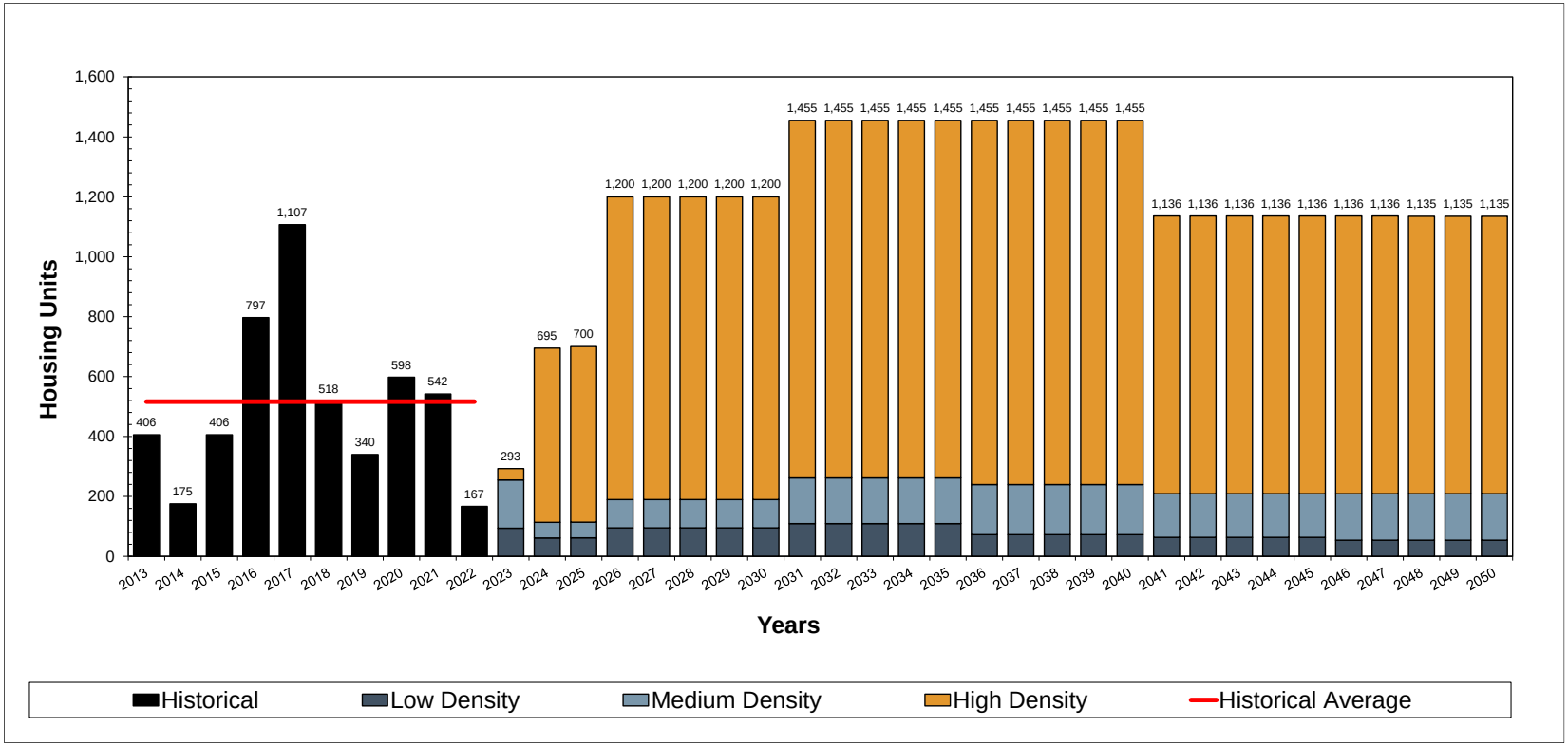
Table 3-1
City of Burlington
Residential Growth Forecast Summary

	Year	Population (Including Census Undercount)[1]	Excluding Census Undercount			Housing Units						Person Per Unit (P.P.U.): Total Population/ Total Households
			Population	Institutional Population	Population Excluding Institutional Population	Singles & Semi-Detached	Multiple Dwellings[2]	Apartments[3]	Other	Total Households	Equivalent Institutional Households	
Historical	*Mid 2011*	181,120	175,779	2,289	173,490	39,189	13,702	15,819	69	68,779	2,081	2.556
	Mid 2016	188,890	183,314	3,189	180,125	39,855	14,085	17,270	165	71,375	2,899	2.568
	Mid 2021	192,630	186,948	2,993	183,955	39,885	14,430	18,740	115	73,170	2,721	2.555
Forecast	*Early 2024*	194,100	188,372	3,018	185,354	40,145	14,585	19,181	115	74,026	2,744	2.545
	Early 2034	217,400	210,989	3,394	207,595	41,063	15,624	28,402	115	85,205	3,085	2.476
	Mid 2051	265,160	257,334	4,120	253,214	42,282	18,348	46,729	115	107,474	3,745	2.394
Incremental	**Mid 2011 - Mid 2016**	**7,770**	**7,535**	**900**	**6,635**	**666**	**383**	**1,451**	**96**	**2,596**	**818**	
	Mid 2016 - Mid 2021	**3,740**	**3,634**	**-196**	**3,830**	**30**	**345**	**1,470**	**-50**	**1,795**	**-178**	
	Mid 2021 - Early 2024	**1,470**	**1,424**	**25**	**1,399**	**260**	**155**	**441**	**0**	**856**	**23**	
	Early 2024 - Early 2034	**23,300**	**22,617**	**376**	**22,241**	**918**	**1,040**	**9,221**	**0**	**11,179**	**341**	
	Early 2024 - Mid 2051	**71,060**	**68,962**	**1,102**	**67,860**	**2,137**	**3,763**	**27,548**	**0**	**33,449**	**1,001**	

[1] Population includes the Census undercount estimated at approximately 3.0% and has been rounded.
[2] Includes townhouses and apartments in duplexes.
[3] Includes bachelor, 1-bedroom, and 2-bedroom+ apartment units.

Notes:
Numbers may not add due to rounding.
Source: Derived from Halton Region Interim Consolidation of the Regional Official Plan, November 4, 2022, which includes ROPA 48 and 49, by Watson & Associates Economists Ltd.

Figure 3-2
City of Burlington
Annual Housing Forecast [1]



[1] Growth forecast represents calendar year.
Historical housing activity derived from Statistics Canada building permit data for the City of Burlington, 2013 to 2022.

Provided below is a summary of the key assumptions and findings regarding the City of Burlington D.C. growth forecast:

1. Unit Mix (Appendix A – Schedules 1, 5 and 6)

- The housing unit mix for the City was derived from a detailed review of historical development activity (as per Schedule 6), as well as active residential development applications (as per Schedule 5) and discussions with City staff regarding anticipated development trends for the City of Burlington.
- Based on the above indicators, the early-2024 to mid-2051 household growth forecast for the City is comprised of a unit mix of 6% low density units (single detached and semi-detached), 11% medium density (multiples except apartments) and 83% high density (bachelor, 1 bedroom and 2-bedroom apartments).

2. Planning Period

- Short-term and longer-term time horizons are required for the D.C. process. The D.C.A. limits the planning horizon for transit services to a 10-year planning horizon. All other services can utilize a longer planning period if the municipality has identified the growth-related capital infrastructure needs associated with the longer-term growth planning period.
- Services Related to a Highway and Storm Drainage Services are forecast over the longer-term planning horizon to 2051, all other services are considered over the 10-year planning horizon to 2034.

3. Population in New Units (Appendix A – Schedules 2, 3 and 4)

- The number of housing units to be constructed by mid-2051 in the City of Burlington over the forecast period is presented in Table 3-1. Over the early-2024 to mid-2051 forecast period, the City is anticipated to average approximately 1,216 new housing units per year.
- Institutional population [3] is anticipated to increase by approximately 1,100 people between early-2024 to mid-2051.

[3] Institutional population largely includes special care facilities such as nursing home or residences for senior citizens. A P.P.U. of 1.100 depicts 1-bedroom and 2-or-more-bedroom units in collective households.

- Population in new units is derived from Schedules 2, 3 and 4, which incorporate historical development activity, anticipated units (see unit mix discussion) and average persons per unit (P.P.U.) by dwelling type for new units.
- Schedule 7 summarizes the average P.P.U. assumed for new housing units by age and type of dwelling based on Statistics Canada 2021 custom Census data for the City. The total calculated P.P.U. for all density types has been adjusted accordingly to account for the P.P.U. trends which have been recently experienced in both new and older units. Forecasted 25-year average P.P.U.s by dwelling type are as follows:
    - Low density: 3.378
    - Medium density: 2.431
    - High density: 1.622

4. Existing Units and Population Change (Appendix A – Schedules 2, 3, and 4)

- Existing households for early-2024 are based on the 2021 Census households, plus estimated residential units constructed between mid-2021 to the beginning of the growth period, assuming a minimum six-month lag between construction and occupancy (see Schedule 2).
- The change in average occupancy levels for existing housing units is calculated in Schedules 2 through 4.[4] The forecast population change in existing households over the early-2024 to mid-2051 forecast period is forecast to increase by approximately 6,810.

5. Employment (Appendix A – Schedules 9a, 9b)

- The employment projections provided herein are largely based on the activity rate method, which is defined as the number of jobs in the City divided by the number of residents. Key employment sectors include primary, industrial, commercial/population-related, institutional, and work at home, which are considered individually below.

[4] Change in occupancy levels for existing households occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

- 2016 employment data [5], [6] (place of work) for the City is outlined in Schedule 9a. The 2016 employment base is comprised of the following sectors:
    - 440 primary (>1%);
    - 8,165 work at home employment (9%);
    - 24,853 industrial (29%);
    - 37,098 commercial/population-related (43%); and
    - 16,265 institutional (19%).

- The 2016 employment by usual place of work, including work at home, is 86,820. An additional 8,670 employees have been identified for the City in 2016 that have no fixed place of work (N.F.P.O.W.).[7]
- Total employment, including work at home and N.F.P.O.W. for the City is anticipated to reach approximately 107,580 by early-2034 and 124,390 by mid-2051. This represents an employment increase of approximately 6,670 for the 10-year forecast period and 23,480 for the longer-term forecast period.
- Schedule 9b, Appendix A, summarizes the employment forecast, excluding work at home employment and N.F.P.O.W. employment, which is the basis for the D.C. employment forecast. The impact on municipal services from work at home employees has already been included in the population forecast. The need for municipal services related to N.F.P.O.W. employees has largely been included in the employment forecast by usual place of work (i.e., employment and gross floor area generated from N.F.P.O.W. construction employment). Furthermore, since these employees have no fixed work address, they cannot be captured in the non-residential G.F.A. calculation. Accordingly, work at home and N.F.P.O.W. employees have been removed from the D.C.A. employment forecast and calculation.

[5] 2016 employment is based on Statistics Canada 2016 Place of Work Employment dataset by Watson & Associates Economists Ltd.
[6] Statistics Canada 2021 Census place of work employment data has been reviewed. The 2021 Census employment results have not been utilized due to a significant increase in work at home employment captured due to Census enumeration occurring during the provincial COVID-19 lockdown from April 1, 2021 to June 14, 2021.
[7] No fixed place of work is defined by Statistics Canada as "persons who do not go from home to the same workplace location at the beginning of each shift. Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc."

- Total employment for the City (excluding work at home and N.F.P.O.W. employment) is anticipated to reach approximately 87,900 by early-2034 and 101,810 by mid-2051. This represents an employment increase of approximately 5,490 for the 10-year forecast period and 19,410 for the longer-term forecast period.[8]

6. Non-Residential Sq.ft. Estimates (G.F.A.), Appendix A – Schedule 9b)

- Square footage estimates were calculated in Schedule 9b based on the following employee density assumptions:
    - 1,100 sq.ft. per employee for industrial;
    - 370 sq.ft. per employee for commercial/population-related; and
    - 375 sq.ft. per employee for institutional employment.
- The City-wide incremental G.F.A. is anticipated to increase by approximately 2.1 million sq.ft. over the 10-year forecast period and 7.5 million sq.ft. over the longer-term forecast period.
- In terms of percentage growth, the early-2024 to mid-2051 incremental G.F.A. forecast by sector is broken down as follows:
    - industrial – 10%;
    - commercial/population-related – 71%; and
    - institutional – 19%.

[8] G.F.A. and employment associated within special care institutional dwellings treated as residential, resulting in an institutional employment difference between Schedules 9a and 9b. Total employment growth in Schedule 9a (excluding work at home and N.F.P.O.W. employment) has been downwardly adjusted to account for institutional employment associated with special care facilities. Total employment in Schedule 9b is anticipated to reach approximately 87,730 by early-2034 and 101,300 by mid-2051.

Chapter 4
Approach to the Calculation of the Charge

4. Approach to the Calculation of the Charge

4.1 Introduction

This chapter addresses the requirements of s.s.5(1) of the D.C.A. with respect to the establishment of the need for service which underpins the D.C. calculation. These requirements are illustrated schematically in Figure 4-1.

4.2 Services Potentially Involved

Table 4-1 lists the full range of D.C. eligible service, as per s.s.4(2) of the D.C.A., as well as examples of D.C. eligible service components. The table further identifies the services provided by the City and those included in the D.C. Background Study for which there is an increase in need for service attributable to development. A number of these services are not provided by the City, as they are provided by the Region of Halton or other agencies. Moreover, two ineligible capital costs defined in subsection 5(3) of the D.C.A. are "computer equipment" and "rolling stock with an estimated useful life of (less than) seven years." Also, some service components are recovered directly under subdivision and development agreements as local services (e.g. local roads). These are identified accordingly.

4.3 Increase in Need for Service

The D.C. calculation commences with an estimate of "the increase in the need for service attributable to the anticipated development," for each service to be covered by the by-law. There must be some form of link or attribution between the anticipated development and the estimated increase in the need for service. While the need could conceivably be expressed generally in terms of units of capacity, s.s.5(1)3, which requires that municipal council indicate that it intends to ensure that such an increase in need will be met, suggests that a project-specific expression of need would be most appropriate.

Figure 4-1
City of Burlington
The Process of Calculating a Development Charge under the Act

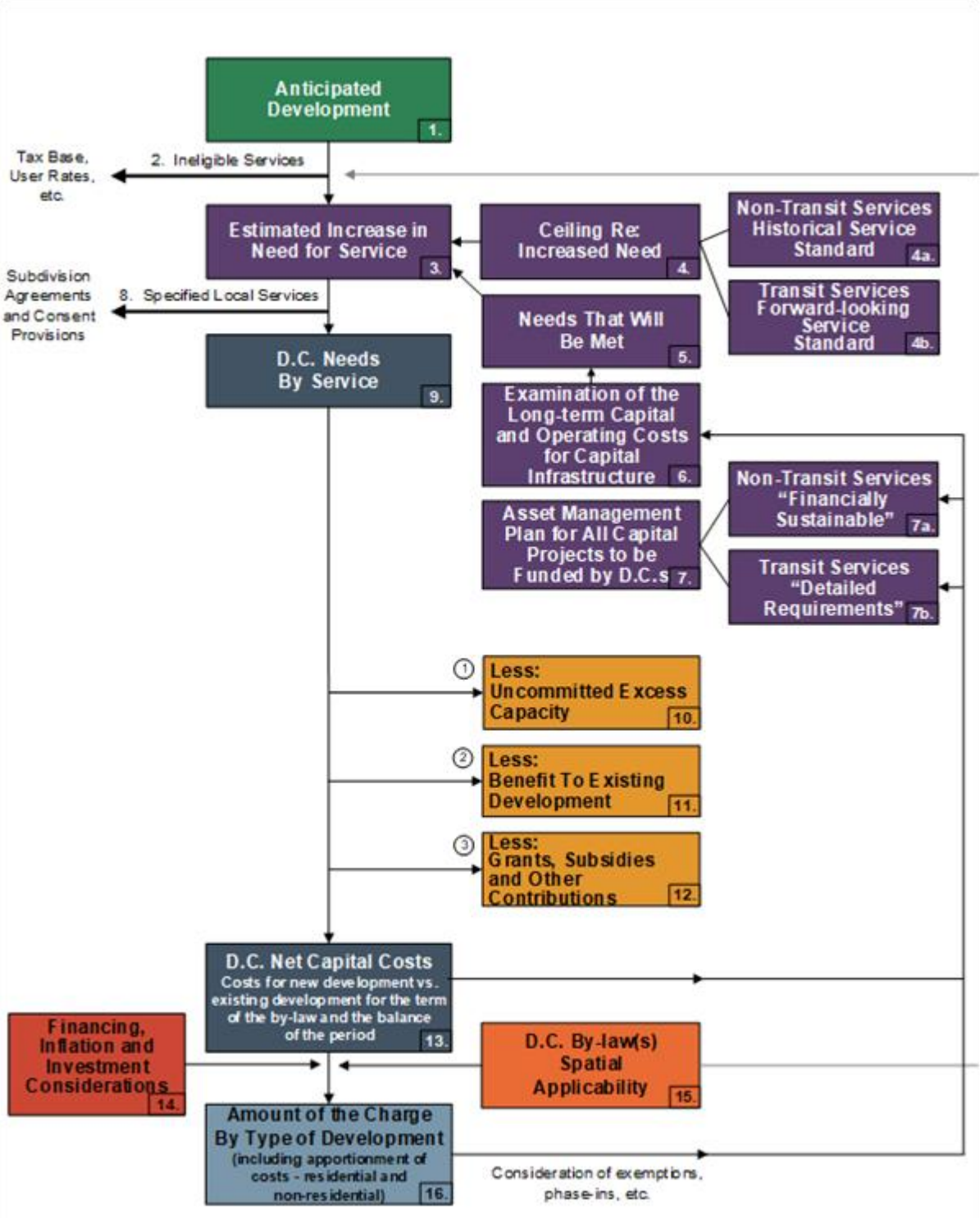


Table 4-1
City of Burlington
Categories of Municipal Services to be Addressed as a Part of the Calculation

Categories of Municipal Services	Inclusion in the D.C. Calculation	Service Components
1. Water supply services, including distribution and treatment services	n/a n/a n/a n/a	1.1 Treatment plants 1.2 Distribution systems 1.3 Local systems 1.4 Vehicles and equipment[9]
2. Wastewater services, including sewers and treatment services	n/a n/a n/a n/a	2.1 Treatment plants 2.2 Sewage trunks 2.3 Local systems 2.4 Vehicles and equipment[9]
3. Stormwater Drainage and Control Services	Yes Yes Yes	3.1 Main channels and drainage trunks 3.2 Channel connections 3.3 Retention/detention ponds
4. Services Related to a Highway	Yes Yes Yes No Yes Yes Yes Yes Yes	4.1 Arterial roads 4.2 Collector roads 4.3 Bridges, Culverts and Roundabouts 4.4 Local municipal roads 4.5 Traffic signals 4.6 Sidewalks and streetlights 4.7 Active Transportation 4.8 Works Yard 4.9 Rolling stock[9]
5. Electrical Power Services	n/a n/a n/a	5.1 Electrical substations 5.2 Electrical distribution system 5.3 Electrical system rolling stock[9]
6. Transit Services	Yes Yes	6.1 Transit vehicles[1] & facilities 6.2 Other transit infrastructure
7. Waste Diversion Services	n/a n/a	7.1 Waste diversion facilities 7.2 Waste diversion vehicles and equipment[9]
8. Policing Services	n/a n/a n/a	8.1 Police detachments 8.2 Police rolling stock[9] 8.3 Small equipment and gear

[9] with a 7+ year useful life

Categories of Municipal Services	Inclusion in the D.C. Calculation	Service Components
9. Fire Protection Services	Yes Yes Yes	9.1 Fire stations 9.2 Fire Vehicles[9] 9.3 Fire Equipment and gear
10. Ambulance Services	n/a n/a	10.1 Ambulance station space 10.2 Vehicles[9]
11. Services provided by a board within the meaning of the *Public Libraries Act*	Yes Yes Yes	11.1 Public library space (incl. furniture and equipment) 11.2 Library vehicles[9] 11.3 Library materials
12. Services Related to Long-Term Care	n/a n/a	12.1 Long-Term Care space 12.2 Vehicles[9]
13. Parks and Recreation Services	Ineligible Yes Yes Yes Yes	13.1 Acquisition of land for parks, woodlots, and E.S.A.s 13.2 Development of municipal parks 13.3 Parks rolling stock[9] and yards 13.4 Facilities, such as arenas, indoor pools, fitness facilities, community centres, etc. 13.5 Recreation vehicles and equipment[9]
14. Services Related to Public Health	n/a n/a	14.1 Public Health department space 14.2 Public Health department vehicles[9]
15. Child Care and Early Years Programs and Services within the meaning of Part VI of the *Child Care and Early Years Act, 2014* and any related services.	n/a n/a	15.1 Childcare space 15.2 Vehicles[9]
16. Services related to proceedings under the *Provincial Offences Act*, including by-law enforcement services and municipally administered court services	No No	16.1 P.O.A. space, including by-law enforcement and municipally administered court services 16.2 Vehicles[9]

Categories of Municipal Services	Inclusion in the D.C. Calculation	Service Components
17. Services Related to Emergency Preparedness	No No	17.1 Emergency Preparedness Space 17.2 Equipment
18. Other	Yes	20.1 Interest on money borrowed to pay for growth-related capital

Eligibility for Inclusion in the D.C. Calculation	Description
Yes	City provides the service – service has been included in the D.C. calculation.
No	City provides the service – service has not been included in the D.C. calculation.
n/a	City does not provide the service.
Ineligible	Service/cost is ineligible for inclusion in the D.C. calculation (e.g. local service).

4.4 Local Service Policy

Some of the need for services generated by additional development consists of local services related to a plan of subdivision or development agreement. As such, they will be required as a condition of subdivision agreements, consent conditions or development agreement. The City's general policy guidelines on D.C. and local service funding is detailed in Appendix F to this report.

4.5 Capital Forecast

Paragraph 7 of s.s.5(1) of the D.C.A. requires that, "the capital costs necessary to provide the increased services must be estimated." The Act goes on to require two potential cost reductions and the Regulation sets out the way in which such costs are to be presented. These requirements are outlined below.

These estimates involve capital costing of the increased services discussed above. This entails costing actual projects or the provision of service units, depending on how each service has been addressed.

The capital costs include:

- costs to acquire land or an interest therein (including a leasehold interest);
- costs to improve land;
- costs to acquire, lease, construct or improve buildings and structures;
- costs to acquire, lease or improve facilities including rolling stock (with a useful life of 7 or more years), furniture and equipment (other than computer equipment), materials acquired for library circulation, reference or information purposes;
- interest on money borrowed to pay for the above-referenced costs.

In order for an increase in need for service to be included in the D.C. calculation, City 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 section 3). The capital program contained herein reflects expressions of Council to address the increase in need for service attributable to development, including various Master Plans (i.e. Integrated Mobility Plan, Parks Provisioning Master Plan, Parks & Forestry/Transit Campus Master Plan, and Fire Master Plan), the City's 2024 Capital Budget and Forecast, Multi-Year Community Investment Plan, Transit 5-Year Business Plan, and prior City D.C. Background Studies.

4.6 Treatment of Credits

Section 8 para. 5 of O.Reg. 82/98 indicates that a D.C. background study must set out, "the estimated value of credits that are being carried forward relating to the service." s.s.17 para. 4 of the same Regulation indicates that, "...the value of the credit cannot be recovered from future D.C.s," if the credit pertains to an ineligible service. This implies that a credit for eligible services can be recovered from future D.C.s. As a result, this provision should be made in the calculation, in order to avoid a funding shortfall with respect to future service needs.

No development charge credit obligations have been included in the D.C. calculation contained herein.

4.7 Existing Reserve Funds

Section 35 of the D.C.A. states that:

"The money in a reserve fund established for a service may be spent only for capital costs determined under paragraphs 2 to 8 of subsection 5(1)."

There is no explicit requirement under the D.C.A. calculation method set out in s.s.5(1) to net the outstanding reserve fund balance as part of making the D.C. calculation; however, s.35 does restrict the way in which the funds are used in future. As such, the estimated D.C. reserve fund balances as at June 1, 2024 have been applied to the D.C. recoverable costs determined in Chapter 5.

The City's D.C. Reserve Funds balances, by service, are presented in Table 4-2. The 2023 year-end reserve fund balances have been adjusted to account for anticipated revenue to the in-force date of the new D.C. by-law, and forgone D.C. revenue during the mandatory phase-in of By-Law 26-2022. These balances have been applied against future spending requirements for all services.

Table 4-2
City of Burlington
Estimated D.C. Reserve Fund Balances (June 1, 2024)

Service	December 31, 2023 Balance	D.C. Revenue Est. Jan.-May 2024	D.C. Phase-In Lost Revenue	June 1, 2024 Estimated Balance
Services Related to a Highway	$21,807,977	$2,294,014	$1,952,252	$26,054,244
Stormwater Drainage Services	$2,203,413	$333,052	$247,850	$2,784,316
Fire Protection Services	$144,780	$43,884	$43,926	$232,590
Transit Services	$1,200,945	$169,487	$159,278	$1,529,711
Parks and Recreation Services	$1,484,532	$843,108	$462,940	$2,790,580
Library Services	$329,621	$134,995	$73,447	$538,064
Total	**$27,171,270**	**$ 3,818,541**	**$ 2,939,694**	**$33,929,505**

4.8 Deductions

The D.C.A. potentially requires that five deductions be made to the increase in the need for service. These relate to:

- the level of service ceiling;
- uncommitted excess capacity;
- benefit to existing development; and
- anticipated grants, subsidies and other contributions.

The requirements behind each of these reductions are addressed as follows:

4.8.1 Reduction Required by Level of Service Ceiling

This is designed to ensure that the increase in need, for non-transit services, included in 4.2 does "…not include an increase that would result in the level of service (for the additional development increment) exceeding the average level of the service provided in the City over the 10-year period immediately preceding the preparation of the background study…" O.Reg. 82.98 (s.4) goes further to indicate that, "…both the quantity and quality of a service shall be taken into account in determining the level of service and the average level of service."

In many cases, this can be done by establishing a quantity measure in terms of units as floor area, land area or road length per capita, and a quality measure in terms of the average cost of providing such units based on replacement costs, engineering standards or recognized performance measurement systems, depending on circumstances. When the quantity and quality factor are multiplied together, they produce a measure of the level of service, which meets the requirements of the Act, i.e. cost per unit.

With respect to transit services, the D.C.A requires that the estimate for the increase in the need cannot exceed the planned level of service over the 10-year period immediately following the preparation of the background study. The planned level of service for transit must not include a portion of the service that is intended to benefit anticipated development after the 10-year period immediately following the preparation of the background study or excess capacity at the end of the 10-year period immediately following the preparation of the background study.

Moreover, for transit services, the background study, must also include:

a) an assessment of ridership forecasts for all modes of transit services proposed to be funded by the D.C. over the 10-year period immediately following the preparation of the background study, categorized by development types, and whether the forecasted ridership will be from existing or planned development; and
b) an assessment of the ridership capacity for all modes of transit services proposed to be funded by the D.C. over the 10-year period immediately following the preparation of the background study.

It is noted that for Water and Wastewater Services, other legislation dictates the level of service to be provided for new infrastructure, therefore, a historic service standard calculation is not required.

For non-transit services, the average service level calculation sheets for each service component in the D.C. calculation are set out in Appendix B. The requirements for transit services are included in Appendix D.

4.8.2 Reduction for Uncommitted Excess Capacity

Paragraph 5 of s.s.5(1) requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City's "excess capacity," other than excess capacity which is "committed" (discussed above in 4.6).

"Excess capacity" is undefined, but in this case, must be able to meet some or all of the increase in need for service, in order to potentially represent a deduction. The deduction of uncommitted excess capacity from the future increase in the need for service, would normally occur as part of the conceptual planning and feasibility work associated with justifying and sizing new facilities, e.g. if a road widening to accommodate increased traffic is not required because sufficient excess capacity is already available, then widening would not be included as an increase in need, in the first instance.

4.8.3 Reduction for Benefit to Existing Development

Section 5(1)6 of the D.C.A. provides that, "The increase in the need for service must be reduced by the extent to which an increase in service to meet the increased need would

benefit existing development." The general guidelines used to consider benefit to existing development included:

- the repair or unexpanded replacement of existing assets that are in need of repair;
- an increase in average service level of quantity or quality;
- the elimination of a chronic servicing problem not created by growth; and
- providing services where none previously existed.

This step involves a further reduction in the need, by the extent to which such an increase in service would benefit existing development. The level of service cap in section 4.8.1 is related but is not the identical requirement. Sanitary, storm, and water trunks are highly localized to growth areas and can be more readily allocated in this regard than other services such as services related to a highway, which do not have a fixed service area. Where existing development has an adequate service level which will not be tangibly increased by an increase in service, no benefit would appear to be involved. For example, where expanding existing library facilities simply replicates what existing residents are receiving, they receive limited (or no) benefit as a result. On the other hand, where a clear existing service problem is to be remedied, a deduction should be made accordingly.

In the case of services such as recreation facilities, community parks, libraries, etc., the service is typically provided on a municipal-wide system basis. For example, facilities of the same type may provide different services (i.e., leisure pool vs. competitive pool), different programs (i.e., hockey vs. figure skating), and different time availability for the same service (i.e., leisure skating available on Wednesdays in one arena and Thursdays in another). As a result, residents will travel to different facilities to access the services they want at the times they wish to use them, and facility location generally does not correlate directly with residence location. Even where it does, displacing users from an existing facility to a new facility frees up capacity for use by others and generally results in only a limited benefit to existing development. Further, where an increase in demand is not met for a number of years, a negative service impact to existing development is involved for a portion of the planning period.

In addition, the growth forecasts indicate that the City will experience a growth in population in existing households. Therefore, a proportionate share of growth needs that benefit this increase growth in existing households, have been deducted from the

costs included in the D.C. calculations/charges that will be imposed on new residential growth units.

4.8.4 Reduction for Anticipated Grants, Subsidies, and Other Contributions

This step involves reducing the capital costs necessary to provide the increased services by capital grants, subsidies and other contributions made or anticipated by Council and in accordance with various rules such as the attribution between the share related to new vs. existing development (O.Reg. 82.98, s.6). Where grant programs do not allow funds to be applied to growth-related capital needs, the proceeds can be applied to the non-growth share of the project exclusively. Moreover, Gas Tax revenues are typically used to fund non-growth-related works or the non-growth share of D.C. projects, given that the contribution is not being made in respect of particular growth-related capital projects.

4.9 Municipal-wide vs. Area-Specific

This step involves determining whether all of the subject costs are to be recovered on a uniform municipal-wide basis or whether some or all are to be recovered on an area-specific basis. Under the amended D.C.A., it is now mandatory to "consider" area-rating of services (providing charges for specific areas and services); however, it is not mandatory to implement area rating.

4.10 Allocation of Development

This step involves relating the costs involved to anticipated development for each period under consideration and using allocations between residential and non-residential development and between one type of development and another, to arrive at a schedule of charges.

Chapter 5
D.C. Eligible Cost Analysis by Service

5. D.C. Eligible Cost Analysis by Service

5.1 Introduction

This chapter outlines the basis for calculating D.C. eligible costs for the D.C.s to be applied on a uniform municipal-wide basis. The required calculation process set out in s.5(1) paragraphs 2 to 8 in the D.C.A., 1997, and described in Chapter 4, was followed in determining D.C. eligible costs.

The nature of the capital projects and timing identified in this chapter reflects Council's current intention. However, over time, municipal projects and Council priorities change and, accordingly, Council's intentions may alter and different capital projects (and timing) may be required to meet the need for services required by new growth.

5.2 Service Levels and 28-Year Capital Costs for City-wide D.C. Calculation

This section evaluates the development-related capital requirements for Services Related to a Highway and Storm Drainage Services within the 28-year forecast period (2024 to 2051). Services Related to a Highway is evaluated on two format sheets: the average historical 15-year level of service calculation (see Appendix B), which "caps" the D.C. amounts; and the infrastructure cost calculation, which determines the potential D.C. recoverable cost. Storm Drainage Services infrastructure cost calculation is not limited by a historical level of service as indicated earlier in section 4.8.1.

5.2.1 Services Related to a Highway

The City provides Services Related to a Highway through various service components. The inventory of roadways is measured by lane-kilometers and is segregated by road classification and roadside environment. Currently, the City has approximately 737 lane km of arterial and collector roads (which are also classified further as rural, urban, residential, and commercial/industrial roads). In addition, the City owns and maintains 9 multi-span bridges, 28 single-span bridges, and 92 large culverts. Further, a wide range of sidewalks including multi-use paths (asphalt and gravel), guiderails, and noise and retaining walls, totaling approximately 651 lane kilometers, and 32,332 traffic signals,

streetlights, and signs, are maintained by the City. Lastly, the City provides 46,756 sq.ft. in public works space specific to Services Related to a Highway.

The total inventory of assets over the past 15 years results in an invested historical level of service of approximately $18,796 per capita (including employees). When applied to the forecast population and employment growth to 2051, a maximum D.C. eligible cost of approximately $1.61 billion (accounting for the increase in population within existing residential units).

Waston worked in conjunction with Dillon Consulting Limited (Dillon) to develop the capital needs program and D.C. recoverable costs for Service Related to a Highway over the forecast period. Appendix C contains their "2024 Development Charges Background Study, Services Related to a Highway" report as a technical appendix to the D.C. Background Study. Dillon considered various expressions of Council in the determination of program. These included the City's Integrated Mobility Plan, 2024 Capital Budget and Forecast, Multi-Year Community Investment Plan, 2022 D.C. Update Study, as well as discussions with City staff. This report contains further details regarding Dillon's methodology of developing the capital program and D.C. recoverable determination.

Table 5-1 provides the 28-year capital program for Services Related to a Highway. The capital program included a total gross capital cost of approximately $604.6 million over the 2024-2051 forecast period. Deductions related to the benefit to the existing development and additional grants, subsidies and other contributions for new development were applied of approximately $93.4 million and $5.4 million, respectively. Further, a deduction of approximately $40.0 million has been made to address the anticipated increase in need from population growth within existing residential units over the forecast period. Finally, approximately $26.1 million in existing reserve funds was applied against the forecast D.C. recoverable capital needs.

As a result, the D.C. recoverable costs of approximately $479.9 million have been included in the calculation of the charge. In total, approximately $365.5 million (76%) of the total D.C. recoverable costs are allocated to residential development, with $114.4 million (24%) allocated to non-residential development. The allocation by development type is based on the incremental forecast of population to employment, with adjustment for the increase in population in existing residential units over the forecast period.

5.2.2 Stormwater Drainage Services

Stormwater drainage needs provided in the increase in need for service reflect those in addition to the local service requirements necessary to maintain a consistent level of service for new development. In maintaining this level of service existing storm drainage infrastructure needs to be expanded or upgraded as development proceeds. The capital costs associated with urban growth include both the construction of new infrastructure, and upgrades to existing infrastructure to accommodate new upstream development. Typical components of the storm drainage system which require municipal funding include:

- storm sewer pipes to collect stormwater runoff;
- open watercourses to convey stormwater runoff through the City; and
- stormwater management facilities, such as stormwater ponds, to provide water quality and flood control.

The D.C. capital program for Stormwater Drainage Services is limited to projects directly associated with the City's creek systems (creek improvements, erosion and flood control), as well as an upgrade to the Fairview Street Culvert. The capital program does not include local storm sewers and storm water quality control facilities to be provided pursuant to development agreements. The sizing of stormwater drainage works included in the City's development charges study is based on achieving flood protection to the Regulatory standards as set out in Provincial and Conservation Authority Regulations (Ontario Regulation 97/04 and Ontario Regulation 162/06).

Table 5-2 provides the capital program for Stormwater Drainage Services for the 28-year forecast period. The basis of the program is the City's 2024 Capital Budget and Forecast, 2022 D.C. Update Study and discussions with City staff. The gross capital cost estimates for the program over the forecast period totals approximately $32.2 million. A benefit to the existing development totaling approximately $24.0 million was applied, based on the anticipated development in the watershed areas for the projects. Further deductions related to the anticipated increase in population within existing residential units and for existing reserve fund balances were applied totaling approximately $3.1 million.

The D.C. recoverable capital costs over the 28-year forecast period totals $5.3 million. The costs of each project were allocated between residential and non-residential

development based on the proportion of contributory drainage area or development benefiting from the proposed works. This method is consistent with prior City D.C. background studies and recognizes the impacts of contribution that different land uses have on the storm drainage system. In total, approximately $3.2 million (60%) of the total D.C. recoverable costs are allocated to residential development, with $2.1 million (40%) allocated to non-residential development.

Table 5-1
City of Burlington
Infrastructure Costs Covered in the D.C. Calculation – Services Related to a Highway

Prj. No.	City's Prj. No	Increased Service Needs Attributable to Anticipated Development 2024 to 2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
		Bridge/Grade Separation/Culvert Projects										
1	RD-RA-769	Mainway Grade Separation	2030	500,000	-		500,000	120,000		380,000	296,400	83,600
2	RD-RA-769	Mainway Grade Separation	2033	25,000,000	-		25,000,000	6,000,000	4,404,333	14,595,667	11,384,620	3,211,047
		Intersection Improvement Projects										
3	RD-RA-763	Harvester Road at Guelph Line Intersection Improvements & Widening	2027	2,020,000	-		2,020,000	101,000	959,500	959,500	748,410	211,090
		Widening Projects										
4	RD-RA-787	Walker's Line Widening (Highway 407 to No. 1 Sideroad)	2033	1,914,500	-		1,914,500	1,531,600		382,900	298,662	84,238
5		Walker's Line Widening (Highway 407 to No. 1 Sideroad) - Active Transportation	2033	997,500	-		997,500	99,750		897,750	700,245	197,505
		Reconstruction Projects										
6	RD-RA-1108	King Road Rehabilitation (King Forest Court to Top of Escarpment)	2026	200,000	-		200,000	180,000		20,000	15,600	4,400
7	RD-RA-1108	King Road Rehabilitation (King Forest Court to Top of Escarpment)	2028	4,122,000	-		4,122,000	3,709,800		412,200	321,516	90,684
8		King Road Rehabilitation (King Forest Court to Top of Escarpment) - Active Transportation	2028	2,280,000	-		2,280,000	228,000		2,052,000	1,600,560	451,440
		Signal Provisions (Traffic and Pedestrian Signals)										
9	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2024	1,075,000	-		1,075,000	53,750		1,021,250	796,575	224,675
10	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2025	425,000	-		425,000	21,250		403,750	314,925	88,825
11	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2026	425,000	-		425,000	21,250		403,750	314,925	88,825
12	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2027	425,000	-		425,000	21,250		403,750	314,925	88,825
13	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2028	425,000	-		425,000	21,250		403,750	314,925	88,825
14	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2029	425,000	-		425,000	21,250		403,750	314,925	88,825
15	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2030	425,000	-		425,000	21,250		403,750	314,925	88,825
16	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2031	425,000	-		425,000	21,250		403,750	314,925	88,825
17	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2032	425,000	-		425,000	21,250		403,750	314,925	88,825
18	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2033	425,000	-		425,000	21,250		403,750	314,925	88,825
19	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2034-2051	7,650,000	-		7,650,000	382,500		7,267,500	5,668,650	1,598,850
		Traffic Management Provisions										
20	RD-TS-287	Traffic Signals - Minor Improvements/Modifications	2025	120,000	-		120,000	60,000		60,000	46,800	13,200
21	RD-TS-287	Traffic Signals - Minor Improvements/Modifications	2026	120,000	-		120,000	60,000		60,000	46,800	13,200
22	RD-TS-287	Traffic Signals - Minor Improvements/Modifications	2027	120,000	-		120,000	60,000		60,000	46,800	13,200
23	RD-TS-287	Traffic Signals - Minor Improvements/Modifications	2028	120,000	-		120,000	60,000		60,000	46,800	13,200
24	RD-TS-287	Traffic Signals - Minor Improvements/Modifications	2029	120,000	-		120,000	60,000		60,000	46,800	13,200

Prj. No.	City's Prj. No	Increased Service Needs Attributable to Anticipated Development 2024 to 2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
25	RD-TS-287	Traffic Signals - Minor Improvements/Modifications	2030	120,000	-		120,000	60,000		60,000	46,800	13,200
26	RD-TS-287	Traffic Signals - Minor Improvements/Modifications	2031	120,000	-		120,000	60,000		60,000	46,800	13,200
27	RD-TS-287	Traffic Signals - Minor Improvements/Modifications	2032	120,000	-		120,000	60,000		60,000	46,800	13,200
28	RD-TS-287	Traffic Signals - Minor Improvements/Modifications	2033	120,000	-		120,000	60,000		60,000	46,800	13,200
29		Traffic Signals - Minor Improvements/Modifications	2034-2051	2,160,000	-		2,160,000	1,080,000		1,080,000	842,400	237,600
		Transit Priority Measures										
30		Transit Signal Priority	2025	675,000	-		675,000	337,500		337,500	263,250	74,250
31		Transit Signal Priority	2026	675,000	-		675,000	337,500		337,500	263,250	74,250
32		Transit Signal Priority	2027	675,000	-		675,000	337,500		337,500	263,250	74,250
33		Transit Signal Priority	2028	675,000	-		675,000	337,500		337,500	263,250	74,250
		Other Provisions										
34	RD-RL-1596	Digital Ortho Imagery	2025	36,000	-		36,000	18,000		18,000	14,040	3,960
35	RD-RL-1596	Digital Ortho Imagery	2027	36,000	-		36,000	18,000		18,000	14,040	3,960
36	RD-RL-1596	Digital Ortho Imagery	2029	36,000	-		36,000	18,000		18,000	14,040	3,960
37	RD-RL-1596	Digital Ortho Imagery	2031	36,000	-		36,000	18,000		18,000	14,040	3,960
38	RD-RL-1596	Digital Ortho Imagery	2033	36,000	-		36,000	18,000		18,000	14,040	3,960
39		Digital Ortho Imagery	2034-2051	324,000	-		324,000	162,000		162,000	126,360	35,640
40	RD-RA-199	Miscellaneous Land	2024	20,000	-		20,000	10,000		10,000	7,800	2,200
41	RD-RA-199	Miscellaneous Land	2025	20,000	-		20,000	10,000		10,000	7,800	2,200
42	RD-RA-199	Miscellaneous Land	2026	20,000	-		20,000	10,000		10,000	7,800	2,200
43	RD-RA-199	Miscellaneous Land	2027	20,000	-		20,000	10,000		10,000	7,800	2,200
44	RD-RA-199	Miscellaneous Land	2028	20,000	-		20,000	10,000		10,000	7,800	2,200
45	RD-RA-199	Miscellaneous Land	2029	20,000	-		20,000	10,000		10,000	7,800	2,200
46	RD-RA-199	Miscellaneous Land	2030	20,000	-		20,000	10,000		10,000	7,800	2,200
47	RD-RA-199	Miscellaneous Land	2031	20,000	-		20,000	10,000		10,000	7,800	2,200
48	RD-RA-199	Miscellaneous Land	2032	20,000	-		20,000	10,000		10,000	7,800	2,200
49	RD-RA-199	Miscellaneous Land	2033	20,000	-		20,000	10,000		10,000	7,800	2,200
50		Miscellaneous Land	2034-2051	360,000	-		360,000	180,000		180,000	140,400	39,600
51	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2024	1,608,122	-		1,608,122	1,213,595		394,527	307,731	86,796
52	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2025	413,684	-		413,684	312,193		101,491	79,163	22,328
53	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2027	60,000	-		60,000	45,280		14,720	11,482	3,238
54	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2029	1,170,000	-		1,170,000	882,959		287,041	223,892	63,149
55	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2031	3,855,600	-		3,855,600	2,909,691		945,909	737,809	208,100
56	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2032	1,635,000	-		1,635,000	1,233,879		401,121	312,874	88,247
57	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2033	2,734,000	-		2,734,000	2,063,257		670,743	523,179	147,563
		INTEGRATED MOBILITY PLAN PROJECTS										
		Active Transportation Projects										
58		Plains Road from York Boulevard to Daryl Drive	2029	6,664,500	-		6,664,500	666,450		5,998,050	4,678,479	1,319,571
59		Plains Road from Daryl Drive to Shadeland Avenue	2025	7,668,000	-		7,668,000	766,800		6,901,200	5,382,936	1,518,264
60		Plains Road from Shadeland Avenue to King Road	2034-2051	5,110,000	-		5,110,000	511,000		4,599,000	3,587,220	1,011,780
61		Plains Road from King Road to QEW N/B Off Ramp / Plains Road E	2034-2051	3,630,000	-		3,630,000	363,000		3,267,000	2,548,260	718,740

Prj. No.	City's Prj. No	Increased Service Needs Attributable to Anticipated Development 2024 to 2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
62		Fairview Street from QEW N/B Off Ramp / Plains Road E to Brant Street	2034-2051	5,005,000	-		5,005,000	500,500		4,504,500	3,513,510	990,990
63		Fairview Street from Brant Street to Drury Lane	2034-2051	3,932,500	-		3,932,500	393,250		3,539,250	2,760,615	778,635
64		Fairview Street from Drury Lane to Guelph Line	2034-2051	2,646,250	-		2,646,250	264,625		2,381,625	1,857,668	523,958
65		Fairview Street from Guelph Line to Walkers Line	2034-2051	7,573,750	-		7,573,750	757,375		6,816,375	5,316,773	1,499,603
66		Fairview Street from Walkers Line to Appleby Line	2026	7,350,000	-		7,350,000	735,000		6,615,000	5,159,700	1,455,300
67		Fairview Street from Appleby Line to Road End	2034-2051	3,850,000	-		3,850,000	385,000		3,465,000	2,702,700	762,300
68		James Street from Brant Street to Martha Street	2029	1,000,000	-		1,000,000	100,000		900,000	702,000	198,000
69		New Street from Martha Street to Guelph Line	2034-2051	379,350	-		379,350	37,935		341,415	266,304	75,111
70		New Street from Guelph Line to Walkers Line	2034-2051	7,438,175	-		7,438,175	743,818		6,694,358	5,221,599	1,472,759
71		New Street from Walkers Line to Appleby Line	2034-2051	3,642,500	-		3,642,500	364,250		3,278,250	2,557,035	721,215
72		New Street from Appleby Line to Burloak Drive	2034-2051	3,455,000	-		3,455,000	345,500		3,109,500	2,425,410	684,090
73		Lakeshore Road from 825 m south of North Shore Boulevard E to North Shore Boulevard E	2034-2051	2,062,500	-		2,062,500	206,250		1,856,250	1,447,875	408,375
74		North Shore Boulevard E from King Road to QEW N/B Off-Ramp	2034-2051	1,292,500	-		1,292,500	129,250		1,163,250	907,335	255,915
75		North Shore Boulevard E from QEW N/B Off-Ramp to Maple Avenue / Lakeshore Road	2034-2051	1,827,000	-		1,827,000	182,700		1,644,300	1,282,554	361,746
76		Lakeshore Road from Maple Avenue / Lakeshore Road to Brant Street	2034-2051	203,725	-		203,725	20,373		183,353	143,015	40,338
77		Lakeshore Road from Brant Street to Martha Street	2027	580,781	-		580,781	58,078		522,703	407,708	114,995
78		Lakeshore Road from Martha Street to Guelph Line	2027	1,250,000	-		1,250,000	125,000		1,125,000	877,500	247,500
79		Lakeshore Road from Appleby Line to Burloak Drive	2026	687,500	-		687,500	68,750		618,750	482,625	136,125
80		Harvester Road from Appleby Line to Burloak Drive	2034-2051	3,763,550	-		3,763,550	376,355		3,387,195	2,642,012	745,183
81		Upper Middle Road from Havendale Boulevard to Brant Street	2034-2051	1,297,500	-		1,297,500	129,750		1,167,750	910,845	256,905
82		Upper Middle Road from Brant Street to Guelph Line	2026-2029	4,728,325	-		4,728,325	472,833		4,255,493	3,319,284	936,208
83		Waterdown Road from Mountain Brown Road to Highway 403 Eastbound Off-Ramp	2034-2051	3,392,500	-		3,392,500	339,250		3,053,250	2,381,535	671,715
84		Waterdown Road from Highway 403 Eastbound Off-Ramp to Plains Road	2034-2051	2,646,250	-		2,646,250	264,625		2,381,625	1,857,668	523,958
85		King Road from Plains Road to Northshore Road	2034-2051	5,566,250	-		5,566,250	556,625		5,009,625	3,907,508	1,102,118
86		Maple Avenue from Fairview Street to Lakeshore Road	2034-2051	5,896,250	-		5,896,250	589,625		5,306,625	4,139,168	1,167,458
87		Brant Street from Fairview Street to Lakeshore Road	2034-2051	5,822,875	-		5,822,875	582,288		5,240,588	4,087,658	1,152,929
88		Guelph Line from Fairview Street to New Street	2034-2051	2,587,925	-		2,587,925	258,793		2,329,133	1,816,723	512,409
89		Guelph Line from New Street to Lakeshore Road	2034-2051	606,825	-		606,825	60,683		546,143	425,991	120,151
90		Walkers Line from Highway 407 to Dundas Street	2034-2051	2,851,875	-		2,851,875	285,188		2,566,688	2,002,016	564,671
91		Walkers Line from Dundas Street to Upper Middle Road	2027	4,420,166	-		4,420,166	442,017		3,978,150	3,102,957	875,193
92		Walkers Line from Upper Middle Road to Mainway	2027	1,722,967	-		1,722,967	172,297		1,550,670	1,209,523	341,147
93		Walkers Line from Mainway to Harvester Road	2025-2028	1,828,894	-		1,828,894	182,889		1,646,005	1,283,884	362,121
94		Walkers Line from Harvester Road to Fairview Street	2025	993,443	-		993,443	99,344		894,099	697,397	196,702
95		Walkers Line from Fairview Street to New Street	2025	1,789,900	-		1,789,900	178,990		1,610,910	1,256,510	354,400
96		Walkers Line from New Street to Lakeshore Road	2025	767,600	-		767,600	76,760		690,840	538,855	151,985
97		Appleby Line from Fairview Street to New Street	2027	2,330,000	-		2,330,000	233,000		2,097,000	1,635,660	461,340
98		Appleby Line from New Street to Lakeshore Road	2027	1,384,000	-		1,384,000	138,400		1,245,600	971,568	274,032
99		Burloak Drive from Harvester Road to New Street	2034-2051	1,352,700	-		1,352,700	135,270		1,217,430	949,595	267,835

Prj. No.	City's Prj. No	Increased Service Needs Attributable to Anticipated Development 2024 to 2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
100		Palladium Way from Dundas Street to Walkers Line	2034-2051	1,247,500	-		1,247,500	124,750		1,122,750	875,745	247,005
101		Palladium Way from Walkers Line to Appleby Line	2034-2051	3,617,500	-		3,617,500	361,750		3,255,750	2,539,485	716,265
102		Mainway from Guelph Line to Walkers Line	2026	2,966,350	-		2,966,350	296,635		2,669,715	2,082,378	587,337
103		Mainway from Walkers Line to Appleby Line	2028	3,045,000	-		3,045,000	304,500		2,740,500	2,137,590	602,910
104		Mainway from Appleby Line to Burloak Drive	2028	4,420,000	-		4,420,000	442,000		3,978,000	3,102,840	875,160
105		North Service Road from Kerns Road to Brant Street	2032	1,586,475	-		1,586,475	158,648		1,427,828	1,113,705	314,122
106		North Service Road from Brant Street to Industrial Street	2032	1,363,125	-		1,363,125	136,313		1,226,813	956,914	269,899
107		South Service Road from Harvester Road to Century Drive	2034-2051	3,250,000	-		3,250,000	325,000		2,925,000	2,281,500	643,500
108		Harvester Road from Guelph Line to Walkers Line	2034-2051	615,000	-		615,000	61,500		553,500	431,730	121,770
109		Harvester Road from Walkers Line to Appleby Line	2034-2051	1,302,500	-		1,302,500	130,250		1,172,250	914,355	257,895
110		Maple Avenue from Plains Road E to Fairview Street	2034-2051	777,500	-		777,500	77,750		699,750	545,805	153,945
111		Sutton Drive from Mainway to North Service Road	2030	1,026,300	-		1,026,300	102,630		923,670	720,463	203,207
112		Howard Road from Lemonville Road to Plains Road	2034-2051	1,013,200	-		1,013,200	101,320		911,880	711,266	200,614
113		Gallagher Road from Road End to Plains Road	2034-2051	1,139,850	-		1,139,850	113,985		1,025,865	800,175	225,690
114		Shadeland Avenue from Plains Road to Townsend Avenue	2034-2051	9,900	-		9,900	990		8,910	6,950	1,960
115		Townsend Avenue from Stephenson Drive to Eagle Drive	2034-2051	43,725	-		43,725	4,373		39,353	30,695	8,658
116		Surrey Lane / Warwick Drive from King Road to Francis Road	2034-2051	18,150	-		18,150	1,815		16,335	12,741	3,594
117		Greenwood Drive from King Road to Francis Road	2030	230,850	-		230,850	23,085		207,765	162,057	45,708
118		Maple Crossing Boulevard from Maple Avenue to Multi-Use Trail	2034-2051	12,375	-		12,375	1,238		11,138	8,687	2,450
119		Caroline Street from Multi-Use Trail to Brant Street	2034-2051	267,325	-		267,325	26,733		240,593	187,662	52,930
120		Caroline Street from Brant Street to Drury Lane	2034-2051	343,850	-		343,850	34,385		309,465	241,383	68,082
121		Thorpe Road / Stephenson Drive from Maple Avenue to Grahams Lane	2034-2051	26,400	-		26,400	2,640		23,760	18,533	5,227
122		Grahams Lane from Stephenson Drive to Brant Street	2034-2051	886,550	-		886,550	88,655		797,895	622,358	175,537
123		Prospect Street from Brant Street to Guelph Line	2034-2051	2,200,000	-		2,200,000	220,000		1,980,000	1,544,400	435,600
124		Prospect Street from Guelph Line to Cumberland Avenue	2034-2051	3,741,250	-		3,741,250	374,125		3,367,125	2,626,358	740,768
125		Woodward Avenue / Rexway Drive from Guelph Line to Walkers Line	2034-2051	72,600	-		72,600	7,260		65,340	50,965	14,375
126		Headon Road from Multi-Use Trail to Jordan Avenue	2034-2051	12,375	-		12,375	1,238		11,138	8,687	2,450
127		Jordan Avenue from Headon Road to Walkers Line	2034-2051	20,625	-		20,625	2,063		18,563	14,479	4,084
128		Millcroft Park Drive from Walkers Line to Dundas Street	2034-2051	102,300	-		102,300	10,230		92,070	71,815	20,255
129		William O'Connell Boulevard from Millcroft Park Drive to Upper Middle Road	2034-2051	452,350	-		452,350	45,235		407,115	317,550	89,565
130		Leighland Road from Brant Street to Truman Street	2034-2051	886,550	-		886,550	88,655		797,895	622,358	175,537
131		Mountainside Drive from Multi-Use Trail to Guelph Line	2030	846,325	-		846,325	84,633		761,693	594,120	167,572
132		Wedgewood Drive from Pinedale Avenue to New Street	2034-2051	18,150	-		18,150	1,815		16,335	12,741	3,594
133		Rossmore Boulevard from New Street to Lakeshore Road	2034-2051	32,175	-		32,175	3,218		28,958	22,587	6,371
134		Cumberland Avenue from Fairview Street to Prospect Street	2030	399,150	-		399,150	39,915		359,235	280,203	79,032
135		Ontario Street from Maple Avenue to Multi-Use Trail	2034-2051	562,500	-		562,500	56,250		506,250	394,875	111,375
136		Elgin Street from Maple Avenue to Brant Street	2034-2051	713,900	-		713,900	71,390		642,510	501,158	141,352
137		Locust Street from Caroline Street to Lakeshore Road	2034-2051	516,500	-		516,500	51,650		464,850	362,583	102,267
138		John Street from Caroline Street to Lakeshore Road	2029-2030	625,000	-		625,000	62,500		562,500	438,750	123,750

Prj. No.	City's Prj. No	Increased Service Needs Attributable to Anticipated Development 2024 to 2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
139		Elizabeth Street from Caroline Street to Lakeshore Road	2032	18,150	-		18,150	1,815		16,335	12,741	3,594
140		Martha Street from Caroline Street to Lakeshore Road	2029	893,150	-		893,150	89,315		803,835	626,991	176,844
141		Cedar Springs Road from Dundas Street to No. 1 Side Road	2029	1,396,500	-		1,396,500	139,650		1,256,850	980,343	276,507
142		Cedar Springs Road from No. 1 Side Road to No. 2 Side Road	2029	1,379,875	-		1,379,875	137,988		1,241,888	968,672	273,215
143		Cedar Springs Road from No. 2 Side Road to Britannia Road	2026	4,134,375	-		4,134,375	413,438		3,720,938	2,902,331	818,606
144		Britannia Road from Milburough Line to Cedar Springs Road	2034-2051	118,750	-		118,750	11,875		106,875	83,363	23,513
145		Britannia Road from Cedar Springs Road to Guelph Line	2034-2051	3,615,000	-		3,615,000	361,500		3,253,500	2,537,730	715,770
146		Britannia Road from Guelph Line to Walkers Line	2034-2051	1,330,000	-		1,330,000	133,000		1,197,000	933,660	263,340
147		Britannia Road from Walkers Line to Appleby Line	2034-2051	1,520,000	-		1,520,000	152,000		1,368,000	1,067,040	300,960
148		Britannia Road from Appleby Line to Bell School Line	2034-2051	1,425,000	-		1,425,000	142,500		1,282,500	1,000,350	282,150
149		Walkers Line from No. 1 Side Road to No. 2 Side Road	2034-2051	1,947,500	-		1,947,500	194,750		1,752,750	1,367,145	385,605
150		Walkers Line from No. 2 Side Road to Britannia Road	2034-2051	3,040,000	-		3,040,000	304,000		2,736,000	2,134,080	601,920
151		Walkers Line from Britannia Road to Derry Road	2034-2051	2,873,750	-		2,873,750	287,375		2,586,375	2,017,373	569,003
152		Bell School Line from Britannia Road to Derry Road	2034-2051	2,945,000	-		2,945,000	294,500		2,650,500	2,067,390	583,110
153		Snake Road from Old York Road to Thomson Drive / Main Street S (Waterdown)	2026	873,600	-		873,600	87,360		786,240	613,267	172,973
154		AT overpass/underpass of QEW (@ Maple Park) from Greenwood Dr to Maple Ave	2034-2051	19,000,000	-		19,000,000	1,900,000		17,100,000	13,338,000	3,762,000
155		AT overpass/underpass of QEW/403 (east of Brant Street) from Truman St to Industrial St	2034-2051	26,100,000	-		26,100,000	2,610,000		23,490,000	18,322,200	5,167,800
156		AT overpass/underpass of QEW/403 (east of Appleby Line) from Century Dr to Sutton Dr	2034-2051	18,800,000	-		18,800,000	1,880,000		16,920,000	13,197,600	3,722,400
157		**Standalone Pedestrian Projects** Blairholm Avenue from Brant Street to Deyncourt Drive/ Gary Crescent	2034-2051	750,000	-		750,000	75,000		675,000	526,500	148,500
158		Cavendish Drive from Upper Middle Road to Dawlish Road	2034-2051	725,000	-		725,000	72,500		652,500	508,950	143,550
159		Cavendish Drive from ~90m north of Upper Middle Road to Upper Middle Road	2034-2051	225,000	-		225,000	22,500		202,500	157,950	44,550
160		Corporate Drive from ~145m east of Ironstone Drive to Appleby Line	2034-2051	687,500	-		687,500	68,750		618,750	482,625	136,125
161		Corporate Drive from Appleby Line to ~50m east of Creek Way (end)	2034-2051	1,700,000	-		1,700,000	170,000		1,530,000	1,193,400	336,600
162		Coventry Way from ~45m west of Alder Drive to Guelph Line	2034-2051	437,500	-		437,500	43,750		393,750	307,125	86,625
163		Daryl Drive from Plains Road West to 25m north of Cullum Court	2034-2051	450,000	-		450,000	45,000		405,000	315,900	89,100
164		Dawlish Road from Brant Street to Cavendish Drive	2034-2051	375,000	-		375,000	37,500		337,500	263,250	74,250
165		Driftwood Drive from Guelph Line to Autumn Hill Crescent	2034-2051	275,000	-		275,000	27,500		247,500	193,050	54,450
166		Hampton Heath Road from Lakeshore Road to ~25m north of Stratton Road	2034-2051	400,000	-		400,000	40,000		360,000	280,800	79,200
167		Headon Street from ~40m south of Upper Middle Road to ~30m south of Columbia Crescent	2034-2051	725,000	-		725,000	72,500		652,500	508,950	143,550
168		Heron Way from Appleby Line to Upper Middle Road	2034-2051	775,000	-		775,000	77,500		697,500	544,050	153,450
169		Heron Way from Upper Middle Road to Ironstone Drive	2034-2051	525,000	-		525,000	52,500		472,500	368,550	103,950
170		Imperial Way from Upper Middle Road to Ironstone Drive	2034-2051	562,500	-		562,500	56,250		506,250	394,875	111,375
171		Inverary Road from Fairview Street to ~80m south of Fairview Street	2034-2051	200,000	-		200,000	20,000		180,000	140,400	39,600
172	RD-RC-2026	Ironstone Drive from Heron Way to Appleby Line	2030	500,000	-		500,000	50,000		450,000	351,000	99,000

Prj. No.	City's Prj. No	Increased Service Needs Attributable to Anticipated Development 2024 to 2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
173		Ironstone Drive from Appleby Line to Imperial Way	2034-2051	500,000	-		500,000	50,000		450,000	351,000	99,000
174		Kenwood Avenue from Lakeshore Road to ~25m north of Banting Court	2034-2051	437,500	-		437,500	43,750		393,750	307,125	86,625
175		Kerns Road from Four Seasons Drive / Winterberry Drive to ~75m south of Four Seasons Drive / Winterberry Drive	2034-2051	187,500	-		187,500	18,750		168,750	131,625	37,125
176		King Road from Plains Road East to ~70m north of Plains Road East	2034-2051	175,000	-		175,000	17,500		157,500	122,850	34,650
177		Leighland Road from Brant Street to ~20m west of Ryckman Common	2034-2051	225,000	-		225,000	22,500		202,500	157,950	44,550
178		Longmoor Drive from New Street to ~15m south of Stephanie Street	2034-2051	412,500	-		412,500	41,250		371,250	289,575	81,675
179	RD-RL-2021	Mount Forest Drive from Brant Street to ~55m east of Mountain Side Drive	2029	575,000	-		575,000	57,500		517,500	403,650	113,850
180		Mountain Grove Avenue from Guelph Line to Ireland Drive	2034-2051	250,000	-		250,000	25,000		225,000	175,500	49,500
181		Pinedale Ave from Appleby Line to Timber Lane	2034-2051	675,000	-		675,000	67,500		607,500	473,850	133,650
182	RD-RA-2122	Plains Road East from ~50m east of Helena Street to Brant Street	2028	812,500	-		812,500	81,250		731,250	570,375	160,875
183		Plains Road East from Brant Street to Brenda Crescent	2034-2051	2,475,000	-		2,475,000	247,500		2,227,500	1,737,450	490,050
184	RD-RR-1468	Queensway Drive from ~25m east of Reimer Common to Guelph Line	2027	1,250,000	-		1,250,000	125,000		1,125,000	877,500	247,500
185		Silvan Forest Drive from Mainway to ~80m north of Mainway	2034-2051	200,000	-		200,000	20,000		180,000	140,400	39,600
186		Sutton Drive from Dundas Street to ~120m south of Dundas Street	2034-2051	300,000	-		300,000	30,000		270,000	210,600	59,400
187		Sutton Drive from Upper Middle Road to ~120m north of Upper Middle Road	2034-2051	300,000	-		300,000	30,000		270,000	210,600	59,400
188		Taywood Drive from Boros Road / Turnberry Road to Appleby Line	2034-2051	375,000	-		375,000	37,500		337,500	263,250	74,250
189		Thomas Alton Boulevard from ~35m west of Columbus Drive to Appleby Line	2034-2051	787,500	-		787,500	78,750		708,750	552,825	155,925
190		Thomas Alton Boulevard from Tim Dobbie Drive to ~150 m east of Tim Dobbie Drive	2034-2051	375,000	-		375,000	37,500		337,500	263,250	74,250
191		Tim Dobbie Drive from Thomas Alton Boulevard to ~35m south of Carrick Street	2034-2051	250,000	-		250,000	25,000		225,000	175,500	49,500
192		Timber Lane from New Street to Pinedale Avenue	2034-2051	700,000	-		700,000	70,000		630,000	491,400	138,600
193		Woodview Road from End to Fairview Street	2034-2051	287,500	-		287,500	28,750		258,750	201,825	56,925
194		Woodview Road from Fairview Street to ~80m south of Fairview Road	2034-2051	200,000	-		200,000	20,000		180,000	140,400	39,600
		New Highways									-	-
195		Cumberland Ave Extension from Mainway to Fairview St	2034-2051	147,600,000	-		147,600,000	-		147,600,000	115,128,000	32,472,000
196		South Service Road Extension from Waterdown Rd to King Rd	2034-2051	30,600,000	-		30,600,000	-		30,600,000	23,868,000	6,732,000
197		New Collector Road (east of Brant Street) from Fairview St to Plains Rd	2034-2051	38,300,000	-		38,300,000	-		38,300,000	29,874,000	8,426,000
198		New Collector Road (east of Appleby Line) from Fairview St to Harvester Rd	2034-2051	34,200,000	-		34,200,000	-		34,200,000	26,676,000	7,524,000
		Adjustment related to Existing Population Incline						40,020,302		(40,020,302)	(40,020,302)	-
		Reserve Fund Adjustment								(26,054,244)	(20,322,310)	(5,731,934)
		Total		**604,647,558**	**-**	**-**	**604,647,558**	**93,369,122**	**5,363,833**	**479,860,359**	**365,486,614**	**114,373,745**

Table 5-2
City of Burlington
Infrastructure Costs Covered in the D.C. Calculation – Stormwater Drainage Services

Prj. No.	City's Prj.No	Increased Service Needs Attributable to Anticipated Development 2024 to 2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
1	SM-SD-512	Appleby Creek Erosion Control (Detailed Design and Partial Construction) (South Service Road to Lake Ontario)	2024	1,057,377	-		1,057,377	412,400		644,977	515,982	128,995
2	SM-SD-512	Appleby Creek Erosion Control (South Service Road to Lake Ontario)	2025	755,737	-		755,737	294,700		461,037	368,830	92,207
3	SM-SD-512	Appleby Creek Erosion Control (South Service Road to Lake Ontario)	2026	1,018,033	-		1,018,033	397,000		621,033	496,826	124,207
4	SM-SD-512	Appleby Creek Erosion Control (South Service Road to Lake Ontario)	2027	704,918	-		704,918	274,900		430,018	344,014	86,004
5	SM-SD-512	Appleby Creek Erosion Control (South Service Road to Lake Ontario)	2028	893,443	-		893,443	348,400		545,043	436,034	109,009
6	SM-SD-512	Appleby Creek Erosion Control (South Service Road to Lake Ontario)	2029	700,000	-		700,000	273,000		427,000	341,600	85,400
7	SM-SD-1504	Falcon Creek Erosion Control (Class EA and Detailed Design) (CNR to Willowbrook Road)	2024	500,000	-		500,000	250,000		250,000	-	250,000
8	SM-SD-1504	Falcon Creek Erosion Control (Class EA and Detailed Design) (CNR to Willowbrook Road)	2025	600,000	-		600,000	300,000		300,000	-	300,000
9	SM-SD-1264	Falcon Creek Erosion Control (Class EA and Detailed Design) (North Shore Boulevard to Hamilton Harbour)	2028	250,000	-		250,000	200,000		50,000	50,000	-
10	SM-SD-1264	Falcon Creek Erosion Control (Class EA and Detailed Design) (North Shore Boulevard to Hamilton Harbour)	2031	400,000	-		400,000	320,000		80,000	80,000	-
11	SM-SD-685	Minor Erosion Control Projects	2024	200,000	-		200,000	100,000		100,000	50,000	50,000
12	SM-SD-685	Minor Erosion Control Projects	2025	200,000	-		200,000	100,000		100,000	50,000	50,000
13	SM-SD-685	Minor Erosion Control Projects	2026	200,000	-		200,000	100,000		100,000	50,000	50,000
14	SM-SD-685	Minor Erosion Control Projects	2027	400,000	-		400,000	200,000		200,000	100,000	100,000
15	SM-SD-685	Minor Erosion Control Projects	2028	300,000	-		300,000	150,000		150,000	75,000	75,000
16	SM-SD-685	Minor Erosion Control Projects	2029	200,000	-		200,000	100,000		100,000	50,000	50,000
17	SM-SD-685	Minor Erosion Control Projects	2030	400,000	-		400,000	200,000		200,000	100,000	100,000
18	SM-SD-685	Minor Erosion Control Projects	2031	400,000	-		400,000	200,000		200,000	100,000	100,000
19	SM-SD-685	Minor Erosion Control Projects	2032	200,000	-		200,000	100,000		100,000	50,000	50,000
20	SM-SD-685	Minor Erosion Control Projects	2033	200,000	-		200,000	100,000		100,000	50,000	50,000
21	SM-SM-941	Roseland Creek Flood Control Facility North of QEW (City's Share)	2029	258,154	-		258,154	129,100		129,054	77,432	51,622
22	SM-SM-941	Roseland Creek Flood Control Facility North of QEW (City's Share)	2030	1,090,000	-		1,090,000	545,000		545,000	327,000	218,000
23	SM-SM-941	Roseland Creek Flood Control Facility North of QEW (City's Share)	2031	1,400,000	-		1,400,000	700,000		700,000	420,000	280,000
24	SM-SM-941	Roseland Creek Flood Control Facility North of QEW (City's Share)	2032	1,300,000	-		1,300,000	650,000		650,000	390,000	260,000
25	SM-SM-941	Roseland Creek Flood Control Facility North of QEW (City's Share)	2033	900,000			900,000	450,000		450,000	270,000	180,000
26	SM-SD-537	Roseland Creek Improvements (Class EA and Detailed Design) (Harvester Road to CNR)	2029	300,000	-		300,000	240,000		60,000	36,000	24,000

Prj. No.	City's Prj.No	Increased Service Needs Attributable to Anticipated Development 2024 to 2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
27	SM-SD-537	Roseland Creek Improvements (Class EA and Detailed Design) (Harvester Road to CNR)	2031	940,000	-		940,000	752,000		188,000	112,800	75,200
28	SM-SD-537	Roseland Creek Improvements (Class EA and Detailed Design) (Harvester Road to CNR)	2032	975,000	-		975,000	780,000		195,000	117,000	78,000
29	SM-SD-1846	Shoreacres Creek Erosion Control (Class EA) (Harvester Road to New Street)	2026	160,000	-		160,000	136,000		24,000	13,200	10,800
30	SM-SD-1846	Shoreacres Creek Erosion Control (Class EA) (Harvester Road to New Street)	2027	1,000,000	-		1,000,000	850,000		150,000	82,500	67,500
31	SM-SD-1846	Shoreacres Creek Erosion Control (Class EA) (Harvester Road to New Street)	2029	400,000	-		400,000	340,000		60,000	33,000	27,000
32	RD-RL-1596	Digital Ortho Imagery	2025	14,000	-		14,000	7,000		7,000	4,200	2,800
33	RD-RL-1596	Digital Ortho Imagery	2027	14,000	-		14,000	7,000		7,000	4,200	2,800
34	RD-RL-1596	Digital Ortho Imagery	2029	14,000	-		14,000	7,000		7,000	4,200	2,800
35	RD-RL-1596	Digital Ortho Imagery	2031	14,000	-		14,000	7,000		7,000	4,200	2,800
36	RD-RL-1596	Digital Ortho Imagery	2033	14,000	-		14,000	7,000		7,000	4,200	2,800
37		Fairview Street Culvert Upgrade (Apple Creek at Fairview Street)	2025	13,800,000	-		13,800,000	13,662,000		138,000	124,200	13,800
		Adjustment related to Existing Population Incline						353,538		(353,538)	(353,538)	-
		Reserve Fund Adjustment								(2,784,316)	(1,750,189)	(1,034,127)
		Total		**32,172,662**	**-**	**-**	**32,172,662**	**24,043,038**	**-**	**5,345,309**	**3,228,692**	**2,116,617**

5.3 Service Levels and 10-Year Capital Costs for City-wide D.C. Calculation

This section evaluates the development-related capital requirements for Fire Protection, Parks and Recreation, Library, and Transit Services over the 10-year forecast period (2024 to 2033). The increase in need for service for Fire Protection, Parks and Recreation, and Library Services are evaluated relative to the average historical 15-year level of service calculation (see Appendix B), which "caps" the D.C. recoverable amounts. The evaluation in this chapter contains the infrastructure costs for each service and the determination of the potential D.C. recoverable costs. The section in this chapter for Transit Services addresses the infrastructure costs and D.C. determination, as the level of service requirements for Transit Service are based on a forward-looking planned level of service over the 10-year forecast period.

5.3.1 Fire Protection Services

The City currently operates eight fire stations, with a total gross floor area of 83,040 square feet (sq.ft.). The City also operates and maintains 38 vehicles and deploys a service of 176 fully equipped firefighters. In total, the average level of service provided over the past 15 years through the capital infrastructure has been approximately $645 per capita (including employees). In aggregate, the maximum D.C. eligible amount that could be included in the calculation of the charge for Fire Protection Services, after accounting for the increase in population within existing residential units, is approximately $17.0 million.

The anticipated capital needs related to Fire Protection Services for the forecast period have been determined through discussions with City staff and the City's "Fire Master Plan" prepared by Dillon in May 2022. The anticipated capital needs over the 10-year forecast period include the reconstruction and expansion of Fire Station 3 (Aldershot MTSA), a new station to be located in the Urban Downtown Core (Station 9), and associated fire vehicles and equipment for 20 additional firefighters. The capital program also includes the repayment of internal borrowing for prior D.C. eligible capital costs for Fire Protection Services from the Storm Drainage D.C. Reserve Fund.

Table 5-3 provides for a capital program over the forecast period totaling $28.8 million. Approximately $3.4 million has been deducted for the post period benefit to development beyond 2033. Reconstruction of existing facility space in Fire Station 3

has been deducted as a benefit to existing development at approximately $8.4 million. Further, a deduction of $998,243 has been made to reflect the anticipated increase in population within existing residential units over the forecast period.

Applying existing reserve fund balances of $232,590 to the D.C. recoverable capital costs, approximately $15.8 million in net capital have been included in the calculation of the D.C. The allocation of these costs have been assigned to residential and non-residential development based on forecast incremental population and employment growth over the 10-year period. In total, with the adjustment for the anticipated increase in population within existing residential units, approximately $12.6 million (80%) of the total D.C. recoverable costs are allocated to residential development, with $3.2 million (20%) allocated to non-residential development.

5.3.2 Parks and Recreation Services

The City currently maintains approximately 698 hectares (ha.) of developed parkland and over 1 million sq.ft. of indoor recreation facility space for the provision of parks and recreation services. The City's level of service over the historical 15-year period averages $6,775 per capita. In total, the maximum D.C. eligible amount for Parks and Recreation Services over the 10-year forecast period is approximately $151.0 million based on the established level of service and accounting for the forecast increase in population within existing residential units.

The 10-year capital needs for Parks and Recreation Services to accommodate growth has a total gross capital cost of approximately $35.8 million, as show in Table 5-4. These capital needs include the continued development of sports fields and parkland at City View Park, multi-use trail development at Sheldon Creek and further parkland development needs included in the City's Parks Provisioning Master Plan (PMPP). Growth-related needs determined by the PMPP are provided in the program with specific reference to anticipated parks in the Aldershot GO and Bulington GO/UGS MTSAs, Remaining Built Up and Rural Areas. Additionally, a provision for an additional 14.35 ha. of developed parkland will be required over the forecast period in alignment with the PMPP recommendations.

The capital program also includes projects included in the City's 2022 D.C. Update Study that have unfunded D.C. recoverable costs. These projects include the remaining

principal and interest costs for debt payments associated with the Community Centre Lands at Bateman, as well as the Skyway Redevelopment projects.

Approximately $3.7 million has been deducted as a benefit to existing development. This maintains the City's previous D.C. background study attributions of 5% benefit to existing for additional parkland development needs, as well as a further deduction for the anticipated increase in population within existing residential units over the forecast period. The resulting net growth-related capital costs for inclusion in the calculation of the charge total approximately $29.4 million. As the predominant users of Parks and Recreation Services tend to be residents of the City, the forecast D.C. recoverable costs have been allocated 95% to residential and 5% to non-residential.

5.3.3 Library Services

The City currently provides and maintains seven libraries, with a total of 104,925 sq.ft. of library space. The libraries house an inventory of approximately 422,000 library collection items, one vehicle, and six (6) distinct software tools. The average historical level of service over the past 15 years was approximately $731 per capita. Based on the application of this level of service to the incremental 10-year forecast growth, the City would be eligible to collect approximately $16.4 million from D.C.s for library services over the forecast period.

The capital needs required to accommodate growth have a total gross capital cost estimate of approximately $2.6 million, as shown in Table 5-5. These costs include a provision to invest in library collection materials for the Southeast Library Expansion, as well as in the general system to accommodate growth. The capital program also includes unfunded D.C. recoverable costs for the Southeast Library Expansion Lands at Bateman included in the City's 2022 D.C. Update Study, as well as additional furnishing, fixtures and equipment for the expanded space. Deductions for the benefit to existing development and the anticipated increase in population within existing residential units have been made totaling approximately $346,000.

The total D.C. recoverable cost included in the calculation of the charge, after accounting for existing D.C. reserve funds, is approximately $1.7 million. Similar to Parks and Recreation Services, the predominant users of Library Services are residents of the City, and therefore, the forecast growth-related costs have been allocated 95% to residential development and 5% to non-residential development.

5.4 Transit Services

As part of the consulting team on the D.C. Background Study, Dillon has undertaken the detailed calculations required under the D.C.A. for Transit Services. Appendix D contains their "2024-2034 Development Charges Background Study, Appendix Transit" report as a technical appendix to the D.C. Background Study. This report explains in further detail the basis for the increase in need for Transit service, planned level of service, ridership forecast and capital program.

Table 5-6 summarizes the capital program forecast in the Dillon transit services report for the 10-year forecast period and the D.C. recoverable capital costs. In total, the program includes 57 conventional buses, 3 specialized transit vehicles, and 10 additional transit support vehicles, supervisor vehicles, and service vehicles. The program also includes an expansion to the Burlington Transit Operations facility.

In total, the gross capital cost estimate for the Transit Services capital program over the 10-year forecast period is approximately $87.0 million. Deductions have been provided for benefits accruing to development beyond the 10-year forecast period. As such, $5.3 million has been deducted to recognize this post-period benefit. Also, a deduction of approximately $62.2 million has been made to reflect the benefits to existing development and the related increase in ridership and boardings. A further $4.5 million has been deducted for additional grants, subsidies and other contributions for new development. Lastly, a deduction for the anticipated increase in population within existing residential units is provided of $792,389, and existing D.C. reserve funds of approximately $1.5 million have been applied against the D.C. recoverable capital costs.

The total D.C. recoverable cost included in the D.C. calculations for Transit Services is $12.6 million. Approximately $10.0 million (80%) of the total D.C. recoverable costs are allocated to residential development, with $2.5 million (20%) allocated to non-residential development. The allocation by development type is based on the incremental forecast of population to employment, with adjustment for the increase in population in existing residential units over the forecast period.

Table 5-3
City of Burlington
Infrastructure Costs Covered in the D.C. Calculation – Fire Protection Services

Prj. No.	City Prj. No	Increased Service Needs Attributable to Anticipated Development 2024 to 2033	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 81%	Non-Residential Share 19%
		Fire Station 3 (Aldershot MTSA)										
1	CO-UN-2090	Station Build (Construction)	2026	12,013,603	592,120		11,421,483	8,411,814		3,009,669	2,437,832	571,837
2	CO-UN-2091	Pump/Rescue	2027	1,700,000	279,473		1,420,527	-		1,420,527	1,150,627	269,900
		Fire Station 9 (Urban Downtown Core)										
3	CO-UN-2086	Station Build (Construction)	2026-2027	12,006,218	1,973,774		10,032,444	-		10,032,444	8,126,279	1,906,164
4	CO-UN-2087	32M Aerial or Larger	2027	2,250,000	369,891		1,880,109	-		1,880,109	1,522,888	357,221
5	CO-UN-2087	20 Firefighters - Bunker Gear, Glove, Helmet	2026-2029	140,000	23,015		116,985	-		116,985	94,757	22,227
6	CO-UN-2087	Specialized High-Rise Equipment	2028	50,000	8,220		41,780	-		41,780	33,842	7,938
		Principal owing to the Storm Drainage DC Reserve Fund	2024-2033	685,573	112,705		572,867	-		572,867	464,022	108,845
		Adjustment related to Existing Population Incline						998,243		(998,243)	(998,243)	-
		Reserve Fund Adjustment								(232,590)	(188,398)	(44,192)
		Total		**28,845,394**	**3,359,199**	**-**	**25,486,195**	**9,410,057**	**-**	**15,843,547**	**12,643,607**	**3,199,940**

Table 5-4
City of Burlington
Infrastructure Costs Covered in the D.C. Calculation – Parks and Recreation Services

Prj. No.	City's Prj. No	Increased Service Needs Attributable to Anticipated Development 2024 to 2033	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 95%	Non-Residential Share 5%
1	PO-PD-115	City View Park - Sportsfield Development (baseball and parking)	2025	3,695,700	-		3,695,700	184,800		3,510,900	3,335,355	175,545
2	PO-PD-115	City View Park - Sportsfield Development (soccer fields, driveway and parking)	2026	713,000	-		713,000	35,700		677,300	643,435	33,865
3	PO-PD-115	City View Park - Sportsfield Development (soccer fields, driveway and parking)	2027	704,000	-		704,000	35,200		668,800	635,360	33,440
4	PO-PD-115	City View Park - Sportsfield Development (soccer fields, driveway and parking)	2028	400,000	-		400,000	20,000		380,000	361,000	19,000
5	PO-PD-1733	Multi-Use Trail - Sheldon Creek	2025	270,000	-		270,000	199,800		70,200	66,690	3,510
		Aldershot GO MTSA										
7	PO-PD-2096	Parkland Development - 101 Masonry Court (Phase 1)	2027	975,000	-		975,000	48,800		926,200	879,890	46,310
8	PO-PD-2096	Parkland Development - Plains and Cooke Blvd	2032	582,538	-		582,538	29,100		553,438	525,766	27,672
		Burlington GO/UGS MTSA										
9		Parkland Development - CLV (Fairview and Drury)	2034	1,440,767	-		1,440,767	72,000		1,368,767	1,300,328	68,438
10		Parkland Development	2029	505,191	-		505,191	25,300		479,891	455,897	23,995
		Remaining Built Up Areas										
6	PO-PD-2096	Parkland Development - 2100 Brant Street	2026	580,000	-		580,000	29,000		551,000	523,450	27,550
11		Parkland Development	2030	1,345,377	-		1,345,377	67,300		1,278,077	1,214,173	63,904
		Rural										
12		Parkland Development	2032	724,828	-		724,828	36,200		688,628	654,197	34,431
13		Parkland Development - Park Provisioning (Balance of Anticipated Need to 2031, 14.35 ha.)	2031	14,027,898	-		14,027,898	701,400		13,326,498	12,660,173	666,325
14		Skyway Redevelopment (unfunded growth-related cost share)		8,121,674	-		8,121,674	-		8,121,674	7,715,591	406,084
		Debt										
		Community Centre Lands at Bateman - Growth-Related Principal Payments		1,320,246	-		1,320,246	-		1,320,246	1,254,233	66,012
		Community Centre Lands at Bateman - Growth-Related Discounted Interest		458,622	-		458,622	-		458,622	435,691	22,931
		Adjustment related to Existing Population Incline						2,195,996		(2,195,996)	(2,195,996)	-
		Reserve Fund Adjustment								(2,790,580)	(2,651,051)	(139,529)
		Total		**35,864,840**	**-**	**-**	**35,864,840**	**3,680,596**	**-**	**29,393,664**	**27,814,181**	**1,579,483**

Table 5-5
City of Burlington
Infrastructure Costs Covered in the D.C. Calculation – Library Services

Prj. No.	City's Prj.No	Increased Service Needs Attributable to Anticipated Development 2024 to 2033	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 95%	Non-Residential Share 5%
1	FB-LB-1588	**Collection Materials** Additional Collection Materials	2024-2033	750,000	-		750,000	-		750,000	712,500	37,500
2	FB-LB-1921	**Facilities** Library (New Appleby) - Southeast Library Expansion (Bateman) - FF&E	2025	650,000	-		650,000	220,700		429,300	407,835	21,465
		Debt Southeast Library Expansion Lands at Bateman - Growth-Related Principal Payments		862,493	-		862,493	-		862,493	819,368	43,125
		Southeast Library Expansion Lands at Bateman - Growth-Related Discounted Interest		299,610	-		299,610	-		299,610	284,629	14,980
		Adjustment related to Existing Population Incline						125,361		(125,361)	(125,361)	-
		Reserve Fund Adjustment								(538,064)	(511,160)	(26,903)
		Total		**2,562,103**	**-**	**-**	**2,562,103**	**346,061**	**-**	**1,677,977**	**1,587,811**	**90,167**

Table 5-6
City of Burlington
Infrastructure Costs Covered in the D.C. Calculation – Transit Services

Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024 to 2033	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 81%	Non-Residential Share 19%
1	40' Conventional Buses (including transit signal priority tech) - 57 buses	2024-2033	58,995,000	5,262,400		53,732,600	42,287,600	1,191,160	10,253,840	8,305,610	1,948,230
2	Specialized Transit Vehicles - 3 vehicles	2024-2033	1,089,000	-		1,089,000	399,200	403,476	286,324	231,923	54,402
3	Transit Support Vehicles - 2 vehicles	2024-2033	98,000	8,700		89,300	70,200	-	19,100	15,471	3,629
4	Supervisor Vehicles - 4 vehicles	2024-2033	196,000	17,500		178,500	140,500	-	38,000	30,780	7,220
5	Service Vehicles - 4 vehicles	2024-2033	448,000	40,000		408,000	321,100	-	86,900	70,389	16,511
6	Burlington Transit Operations - Expansion	2024-2033	26,134,000	-		26,134,000	18,957,600	2,962,110	4,214,290	3,413,575	800,715
	Adjustment related to Existing Population Incline						792,389		(792,389)	(792,389)	-
	Reserve Fund Adjustment								(1,529,711)	(1,239,066)	(290,645)
	Total		**86,960,000**	**5,328,600**	**-**	**81,631,400**	**62,968,589**	**4,556,746**	**12,576,354**	**10,036,293**	**2,540,061**

Chapter 6
D.C. Calculation

6. D.C. Calculation

Tables 6-1 and 6-2 calculate the proposed D.C.s to be imposed for City-wide services on development area over the 28-year forecast period (2024-2051) and the 10-year forecast period (2024-2033), respectively. The D.C. eligible costs for each service was determined in Chapter 5 for all City-wide services, based on their associated proposed capital programs.

The calculation for residential development is generated on a per capita basis and is based upon six (6) housing types (i.e. single and semi-detached, apartments 2+ bedrooms, bachelor and 1-bedroom apartments, multiples 3+ bedrooms, multiples 1-2 bedrooms, and special care/special dwelling units). The non-residential D.C. has been calculated on a uniform per sq.m. of G.F.A. basis for all non-residential development. It should be noted that the D.C. Background Study recommends a uniform non-residential D.C., as opposed to the current practice of separate D.C.s for retail and non-retail development types, as it better reflects the increase in need for service determined by the City's Integrated Mobility Plan and the increase in non-automotive mode share over the longer term reflecting a broader network perspective.

For the residential calculations, the total D.C. recoverable capital cost is divided by the "gross" (new resident) population to determine the per capita amount. The cost per capita is then multiplied by the average occupancy of the new units by dwelling type (Appendix A, Schedule 5) to calculate the charges in Tables 6-1 and 6-2, inclusive

Table 6-1
City of Burlington
City-Wide D.C. Calculation for the 28-year Forecast Period (2024-2051)

SERVICE/CLASS		2024$ D.C.-Eligible Cost		2024$ D.C.-Eligible Cost	
		Residential	Non-Residential	S.D.U.	per sq.ft.
		$	$	$	$
1 Services Related to a Highway					
1.1 Roads, Bridges and Culverts, Traffic Signals, Streetlights, Domes and Depots		365,486,614	114,373,745	19,864	15.28
2 Stormwater Drainage Services					
2.1 Storm Drainage Services		3,228,692	2,116,617	175	0.28
TOTAL		**$368,715,306**	**$116,490,362**	**$20,039**	**$15.56**
D.C.-Eligible Capital Cost		$368,715,306	$116,490,362		
28-Year Gross Population/GFA Growth (sq.ft.)		62,156	7,488,100		**per sq.m**
Cost Per Capita/Non-Residential GFA (sq.ft.)		**$5,932**	**$15.56**		**$167.49**
By Residential Unit Type	**P.P.U.**				
Single and Semi-Detached Dwelling	3.378	$20,039			
Apartments - 2 Bedrooms +	1.800	$10,678			
Apartments - Bachelor and 1 Bedroom	1.361	$8,074			
Multiples - 3 or more Bedrooms	2.680	$15,898			
Multiples - 1 or 2 Bedrooms	1.930	$11,449			
Special Care/Special Dwelling Units	1.100	$6,525			

Table 6-2
City of Burlington
City-Wide D.C. Calculation for the 10-year Forecast Period (2024-2033)

SERVICE/CLASS		2024$ D.C.-Eligible Cost		2024$ D.C.-Eligible Cost	
		Residential	Non-Residential	S.D.U.	per sq.ft.
		$	$	$	$
3 Fire Protection Services					
3.1 Fire facilities, vehicles, small equipment and gear		12,643,607	3,199,940	2,038	1.53
4 Transit Services					
4.1 Transit Services		10,036,293	2,540,061	1,617	1.22
5 Parks and Recreation Services					
5.1 Park development, recreation facilities		27,814,181	1,579,483	4,482	0.76
6 Library Services					
6.1 Library facilities, materials, vehicles & equipment		1,587,811	90,167	256	0.04
TOTAL		**$52,081,891**	**$7,409,651**	**$8,393**	**$3.55**
D.C.-Eligible Capital Cost		$52,081,891	$7,409,651		
10-Year Gross Population/GFA Growth (sq.ft.)		20,962	2,087,200		per sq.m
Cost Per Capita/Non-Residential GFA (sq.ft.)		**$2,485**	**$3.55**		**$38.21**
By Residential Unit Type	**P.P.U.**				
Single and Semi-Detached Dwelling	3.378	$8,393			
Apartments - 2 Bedrooms +	1.800	$4,472			
Apartments - Bachelor and 1 Bedroom	1.361	$3,382			
Multiples - 3 or more Bedrooms	2.680	$6,659			
Multiples - 1 or 2 Bedrooms	1.930	$4,795			
Special Care/Special Dwelling Units	1.100	$2,733			

Table 6-3 presents the calculated schedule of D.C.s for all services across the residential and non-residential development types. Table 6-3 also includes the charges by residential dwelling unit type and non-residential gross floor area that would be in effect over the 5-year mandatory phase-in period of the D.C. By-Law (assuming a June 1, 2024 effective date).

As noted in Chapter 1, the D.C.A. requires that charges imposed under a new by-law be phased-in over a 5-year period, as follows:

- Year 1 – 80% of the maximum charge;
- Year 2 – 85% of the maximum charge;
- Year 3 – 90% of the maximum charge;
- Year 4 – 95% of the maximum charge; and
- Year 5 to expiry – 100% of the maximum charge.

The City-wide D.C. currently in effect under By-law 29-2019, as amended, represents 85% of the full calculated D.C. provided in the City's 2022 D.C. Update Study, due to the mandatory phase-in. To provide an accurate comparison of the impact of the calculated charges that could be imposed on June 1, 2024, we have indexed the current charges and adjusted the phase-in to the Year 3 amount (i.e. 90% of the maximum charge). The City's D.C. By-law permits annual indexing on April 1st of each year. The most recent 4th quarter index of the Statistics Canada Quarterly, Construction Price Statistics is 5.5%. For comparison purposes, the permitted Year 1 amount in Table 6-3 (i.e. 80% of the maximum charge) provided. Table 6-4 provides a comparison for D.C.s for a residential apartment dwelling with 2 or more bedrooms. Tables 6-5 and 6-6 provide a comparison for retail and non-retail non-residential development types.

Table 6-3
City of Burlington
Calculated Schedule of Development Charges by Service and Phase-In

Service/Class of Service	RESIDENTIAL						NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Multiples - 3 or more Bedrooms	Multiples - 1 or 2 Bedrooms	Special Care/Special Dwelling Units	(per sq.m of Gross Floor Area)
Municipal Wide Services/Class of Service:							
Services Related to a Highway	19,864	10,585	8,003	15,759	11,349	6,468	164.47
Stormwater Drainage Services	175	93	71	139	100	57	3.01
Fire Protection Services	2,038	1,086	821	1,617	1,164	664	16.47
Transit Services	1,617	862	651	1,283	924	527	13.13
Parks and Recreation Services	4,482	2,388	1,806	3,556	2,561	1,460	8.18
Library Services	256	136	103	203	146	83	0.43
TOTAL - Full Calculated Rate	**28,432**	**15,150**	**11,455**	**22,557**	**16,244**	**9,259**	**205.70**
TOTAL - June 1, 2024-May 31, 2025	**22,746**	**12,120**	**9,164**	**18,046**	**12,995**	**7,407**	**164.56**
TOTAL - June 1, 2025-May 31, 2026	**24,167**	**12,878**	**9,737**	**19,173**	**13,807**	**7,870**	**174.85**
TOTAL - June 1, 2026-May 31, 2027	**25,589**	**13,635**	**10,310**	**20,301**	**14,620**	**8,333**	**185.13**
TOTAL - June 1, 2027-May 31, 2028	**27,010**	**14,393**	**10,882**	**21,429**	**15,432**	**8,796**	**195.42**
TOTAL - June 1, 2028-May 31, 2034	**28,432**	**15,150**	**11,455**	**22,557**	**16,244**	**9,259**	**205.70**

The City-wide D.C. currently in effect for a residential apartment dwelling with 2 or more bedrooms is $9,235/unit. As summarized in Table 6-4, the comparable charge on June 1, 2024 is estimated to be $10,316/unit with indexing and phasing. The calculated charge with phasing is $12,120/unit. The calculated increase in the charge for this dwelling unit type is $1,804/unit, or an increase in the charge of approximately 17%.

Table 6-4
City of Burlington
Comparison of June 1, 2024 D.C. for Large Apartment Dwelling Units
($/dwelling unit)

DEVELOPMENT CHARGES WITH PHASE-IN	Current Rate (with phase-in)	Current Rate (with assumed April index, with phase-in)	Calculated Rate (with phase-in)	Difference	Percentage Change
Municipal Wide Services/Classes:					
Services Related to a Highway	4,667	5,213	8,468	3,255	
Stormwater Drainage Services	951	1,063	74	(988)	
Fire Protection Services	98	110	869	759	
Transit Services	376	420	690	270	
Parks and Recreation Services	2,695	3,011	1,910	(1,101)	
Library Services	431	482	109	(373)	
Studies	17	18	-	(18)	
Total Municipal Wide Services/Classes	**9,235**	**10,316**	**12,120**	**1,804**	**17%**

The City-wide D.C. currently in effect for retail non-residential development is $162.96/sq.m. As summarized in Table 6-5, the comparable charge on June 1, 2024 is estimated to be $182.04/sq.m with indexing and phasing. The calculated charge with phasing is $164.56/sq.m. The calculated decrease in the charge for this type of development is $17.48/sq.m, or a reduction in the charge of approximately 10%.

Table 6-5
City of Burlington
Comparison of June 1, 2024 D.C. for Retail Development
($/sq.m)

RETAIL - DEVELOPMENT CHARGES WITH PHASE-IN	Current Rate (with phase-in)	Current Rate (with assumed April index, with phase-in)	Calculated Rate (with phase-in)	Difference	Percentage Change
Municipal Wide Services/Classes:					
Services Related to a Highway	144.11	160.98	131.58	(29.40)	
Stormwater Drainage Services	5.91	6.60	2.41	(4.19)	
Fire Protection Services	1.96	2.19	13.18	10.98	
Transit Services	7.67	8.57	10.51	1.94	
Parks and Recreation Services	2.56	2.86	6.54	3.68	
Library Services	0.41	0.46	0.34	(0.12)	
Studies	0.33	0.37	-	(0.37)	
Total Municipal Wide Services/Classes	**162.96**	**182.04**	**164.56**	**(17.48)**	**-10%**

The City-wide D.C. currently in effect for non-retail non-residential development (i.e. office, service commercial, industrial and non-exempt institutional) is $92.37/sq.m. As summarized in Table 6-6, the comparable charge on June 1, 2024 is estimated to be $103.18/sq.m with indexing and phasing. The calculated charge with phasing is $164.56/sq.m. The calculated increase in the charge for this type of development is $61.38/sq.m, or an increase in the charge of approximately 59%.

Table 6-6
City of Burlington
Comparison of June 1, 2024 D.C. for Non-Retail Development
($/sq.m)

NON-RETAIL - DEVELOPMENT CHARGES WITH PHASE-IN	Current Rate (with phase-in)	Current Rate (with assumed April index, with phase-in)	Calculated Rate (with phase-in)	Difference	Percentage Change
Municipal Wide Services/Classes:					
Services Related to a Highway	73.52	82.13	131.58	49.45	
Stormwater Drainage Services	5.91	6.60	2.41	(4.19)	
Fire Protection Services	1.96	2.19	13.18	10.98	
Transit Services	7.67	8.57	10.51	1.94	
Parks and Recreation Services	2.56	2.86	6.54	3.68	
Library Services	0.41	0.46	0.34	(0.12)	
Studies	0.33	0.37	-	(0.37)	
Total Municipal Wide Services/Classes	**92.37**	**103.18**	**164.56**	**61.38**	**59%**

Table 6-7 summarizes the gross capital expenditures and sources of revenue for works to be undertaken during the 10-year life of the by-laws. This is provided as a requirement of the D.C.A.

Table 6-7
City of Burlington
Gross Expenditure and Sources of Revenue Summary for Costs to be Incurred over the 10-Year Life of the By-laws

Service/Class	Total Gross Cost	Sources of Financing				
		Tax Base or Other Non-D.C. Source		Post D.C. Period Benefit	D.C. Reserve Fund	
		Benefit to Existing	Other Funding		Residential	Non-Residential
1 Services Related to a Highway						
1.1 Roads, Bridges and Culverts, Traffic Signals, Streetlights, Domes and Depots	123,895,989	29,588,563	5,363,833	-	69,376,002	19,567,590
2 Stormwater Drainage Services						
2.1 Storm Drainage Services	32,172,662	23,689,500	-	-	5,332,419	3,150,743
3 Fire Protection Services						
3.1 Fire facilities, vehicles, small equipment and gear	16,013,603	8,411,814	-	1,249,704	5,145,189	1,206,896
4 Parks and Recreation Services						
4.1 Park development, recreation facilities	24,523,531	1,412,600	-	-	21,955,385	1,155,547
5 Library Services						
5.1 Library facilities, materials, vehicles & equipment	16,013,603	220,700	-	-	1,120,335	58,965
6 Transit Services						
6.1 Transit Services	86,960,000	62,176,200	4,556,746	5,328,600	12,067,748	2,830,706
Total Expenditures & Revenues	**$299,579,388**	**$125,499,377**	**$9,920,579**	**$6,578,304**	**$114,997,078**	**$27,970,448**

Chapter 7
D.C. Policy Recommendations and D.C. By-law Rules

7. D.C. Policy Recommendations and D.C. By-law Rules

7.1 Introduction

This chapter outlines the D.C. policy recommendations and by-law rules.

s.s.5(1)9 states that rules must be developed:

> "...to determine if a development charge is payable in any particular case and to determine the amount of the charge, subject to the limitations set out in subsection 6."

Paragraph 10 of subsection 5(1) goes on to state that the rules may provide for exemptions, phasing in and/or indexing of D.C.s.

s.s.5(6) establishes the following restrictions on the rules:

- the total of all D.C.s that would be imposed on anticipated development must not exceed the capital costs determined under 5(1) 2-7 for all services involved;
- if the rules expressly identify a type of development, they must not provide for it to pay D.C.s that exceed the capital costs that arise from the increase in the need for service for that type of development; however, this requirement does not relate to any particular development; and
- if the rules provide for a type of development to have a lower D.C. than is allowed, the rules for determining D.C.s may not provide for any resulting shortfall to be made up via other development; and
- with respect to "the rules," subsection 6 states that a D.C. by-law must expressly address the matters referred to above re s.s.5(1) para. 9, as well as how the rules apply to the redevelopment of land.

The rules provided give consideration for the recent amendments to the D.C.A. as summarized in Chapter 1. However, these policies are provided for Council's consideration and may be refined prior to adoption of the by-law.

7.2 D.C. By-law Structure

It is recommended that:

- the City uses a uniform municipal-wide D.C. calculation for all municipal services; and
- the City imposes one D.C. by-law for all services.

7.3 D.C. By-law Rules

The following sets out the recommended rules governing the calculation, payment and collection of D.C.s in accordance with subsection 6 of the D.C.A., 1997.

It is recommended that the following provides the basis for the D.C.s:

7.3.1 Payment in any Particular Case

In accordance with the D.C.A., 1997, s.2(2), a D.C. be calculated, payable and collected where the development requires one or more of the following:

a) the passing of a zoning by-law or of an amendment to a zoning by-law under Section 34 of the *Planning Act*;
b) the approval of a minor variance under Section 45 of the *Planning Act*;
c) a conveyance of land to which a by-law passed under Section 50(7) of the *Planning Act* applies;
d) the approval of a plan of subdivision under Section 51 of the *Planning Act*;
e) a consent under Section 53 of the *Planning Act*;
f) the approval of a description under Section 50 of the *Condominium Act*; or
g) the issuing of a building permit under the *Building Code Act* in relation to a building or structure.

7.3.2 Determination of the Amount of the Charge

The following convention be adopted:

1. Costs allocated to residential uses will be assigned to different types of residential units based on the average occupancy for each housing type

constructed during the previous 15 years. Costs allocated to non-residential uses will be assigned based on the amount of square feet of G.F.A. constructed for eligible uses (i.e., primary, industrial, commercial, and institutional).

2. Costs allocated to residential and non-residential uses are based upon a number of conventions, as may be suited to each service provided by the City. These are summarized in Chapter 5 herein.

7.3.3 Application to Redevelopment of Land (Demolition and Conversion)

If a development involves the demolition and replacement of a building or structure on the same site, or the conversion from one principal use to another, the developer shall be allowed a credit equivalent to:

- the number of dwelling units demolished/converted multiplied by the applicable residential D.C. in place at the time the D.C. is payable; and/or
- the G.F.A. of the building demolished/converted multiplied by the current non-residential D.C. in place at the time the D.C. is payable.

The demolition credit is allowed only if the land was improved by occupied structures, if the demolition permit has not been revoked. Additionally, demolition credits for residential buildings or structures is allowed only if the demolition permit related to the site was issued less than 5 years prior to the issuance of a building permit.

No credit shall be given with respect to the redevelopment, conversions, demolition, or change of use of a building or structure or part thereof where the existing building or structure or part thereof would have been exempt from D.C.s in accordance with the active by-law. The credit can, in no case, exceed the amount of D.C.s that would otherwise be payable.

7.3.4 Exemptions (Full or Partial)

Statutory Exemptions

Statutory exemptions include the following:

- Partial exemption for industrial building additions of up to and including 50% of the existing G.F.A. (defined in O. Reg. 82/98, section 1) of the building; for

industrial building additions that exceed 50% of the existing G.F.A., only the portion of the addition in excess of 50%, is subject to D.C.s;
- Full exemption for buildings or structures owned by and used for the purposes of any municipality, local board, or Board of Education;
- Full exemption for additional residential development in existing buildings: development that results only in the enlargement of an existing dwelling unit, or that results only in the creation of up to two additional dwelling units (based on prescribed limits set out in section 2 of O. Reg. 82/98);
- Full exemption for additional residential development in new dwellings: development that includes the creation of up to two additional dwelling units (based on prescribed limits set out in section 2 of O. Reg. 82/98); and
- Full exemption for a university in Ontario that receives direct, regular, and ongoing operating funding from the Government of Ontario;
- Full exemption for affordable units, attainable units, affordable inclusionary zoning units, and non-profit housing developments (once proclaimed); and
- Partial exemption through a discount for rental housing units based on bedroom size as prescribed (i.e., three or more bedrooms - 25% discount, two bedrooms - 20% discount, and all others - 15% discount).

Non-statutory Exemptions

Non-statutory (discretionary exemptions) include the following:

- A hospital, excluding any portion of the lands, buildings, or structures occupied by a tenant of the hospital;
- A place of worship;
- A conservation authority, unless such buildings or structures are used primarily for or in connection with (i) recreation purposes for which the conservation authority charges admission and/or fees, or (ii) any retail purposes;
- Seasonal structures;
- Agricultural uses;
- Temporary venues;
- Hospices;
- Facilities providing health and wellness services to senior citizens through programs administered by the Region of Halton or its affiliates; and

- A memorial home, clubhouse or athletic grounds of an Ontario branch of the Royal Canadian Legion, pursuant to paragraph 3 of section 3 of the *Assessment Act, R.S.O. 1990*, c. A.31.

7.3.5 Lot Coverage Relief

Where there is a non-residential development, the development charges otherwise payable shall be calculated in accordance with the following:

- For the portion of the total floor area of such development that is less than or equal to one (1.0) times the area of the lot or block, the non-residential development charges under the by-law apply; and
- For the portion of the total floor area of such development that is greater than one (1.0) times the area of the lot or block, non-residential development charges shall not apply.

7.3.6 Mandatory Phasing In

As required by the *More Homes Built Faster Act, 2022*, the calculated D.C. will be phased-in over a five-year period as follows:

- Year 1 - 80% of the maximum charge;
- Year 2 - 85% of the maximum charge;
- Year 3 - 90% of the maximum charge;
- Year 4 - 95% of the maximum charge; and
- Year 5 to expiry - 100% of the maximum charge.

7.3.7 Timing of Collection

The D.C.s for all services are payable upon issuance of a building permit for each dwelling unit, building, or structure, subject to early or late payment agreements entered into by the City and an owner under s.27 of the D.C.A., 1997.

Rental housing and institutional developments will pay D.C.s in six equal annual payments commencing at occupancy. Moreover, the D.C. amount for all developments occurring within two (2) years of a Site Plan or Zoning By-law Amendment planning approval (for applications submitted after January 1, 2020), shall be determined based

on the D.C. in effect on the day of the applicable Site Plan or Zoning By-law Amendment application.

Installment payments and payments determined at the time of Site Plan or Zoning By-law Amendment application are subject to annual interest charges. The maximum interest rate the City can impose is the average prime rate plus 1%.

7.3.8 Indexing

All D.C.s will be subject to mandatory indexing annually on April 1st of each year, in accordance with provisions under the D.C.A.

7.3.9 D.C. Spatial Applicability

The D.C.A. historically has provided the opportunity for a municipality to impose municipal-wide charges or area specific charges. Sections 2(7) and 2(8) of the D.C.A. provide that a D.C. by-law may apply to the entire municipality or only part of it and more than one D.C. by-law may apply to the same area. Amendments to the D.C.A. now require municipalities to consider the application of municipal-wide and area-specific D.C.s. Section 10(2)(c.1) requires Council to consider the use of more than one D.C. by-law to reflect different needs from services in different areas.

Most municipalities in Ontario have established uniform, municipal-wide D.C.s. This has been the City's approach in prior D.C. by-laws. When area-specific charges are used, it is generally to underpin master servicing and front-end financing arrangements for more localized capital costs.

The rationale for maintaining a City-wide D.C. approach is based, in part, on the following:

- The 15-year service level from all applicable services across the City can be included to establish an upper ceiling on the amount of funds which can be collected. If a D.C. by-law applied to only a part of the municipality, the level of service cannot exceed that which would be determined if the by-law applied to the whole municipality. As such, when applied to forecast growth within the specific area, it would establish an area specific level of service ceiling which could reduce the total revenue recoverable for the City, potentially resulting in D.C. revenue shortfalls and impacts on property taxes and user rates.

- City-wide D.C.s ensures a consistent approach to financing the entire cost associated with growth-related capital projects. For example, user rates and property taxes are required to finance the share of growth-related capital projects not recoverable by D.C.s and all associated operating costs. Therefore, the use of area specific D.C.s results in a share of growth-related capital costs being recovered from a specific area, with the remaining capital costs of the projects (i.e. non-D.C. recoverable share) and the associated operating costs with those new assets being recovered from uniform user rates and property taxes, applied to the entire City.
- Attempting to impose an area-specific D.C. potentially causes equity issues in transitioning from a City-wide approach to an area-specific approach. An area of a municipality that is less developed and becomes subject to an area specific D.C. could face a significant increase in D.C. rates, as the municipality will not benefit from drawing on the pool of D.C. funding and may have contributed regional D.C.s to fund capital required to support development in other communities of the municipality. Whereas, another part of the municipality that has experienced significant growth which required substantial capital investments, benefitted from the capital investments being financed by municipal-wide D.C.s. The implementation of area specific development charges could result in varying D.C.s across the City, which may impact the ability to attract investment into parts of the community;
- Services are generally available across the City, used often by all residents and are not restricted to one specific geographic area. The use of a City-wide D.C. approach reflects these system-wide benefits of service and more closely aligns with the funding principles of service provision (e.g. uniform City-wide property tax rates, etc.).

Based on the foregoing and discussions with City staff, there is no apparent justification for the establishment of area-specific D.C.s at this time. The recommendation is to continue to apply City-wide D.C.s for all services.

7.4 Other D.C. By-law Provisions

7.4.1 Categories of Services for Reserve Fund and Credit Purposes

It is recommended that the City's D.C. collections be contributed into six (6) separate reserve funds, including: Service Related to a Highway, Stormwater Drainage Services, Fire Protection Services, Transit Services, Parks and Recreation Services, and Library Services.

7.4.2 By-law In-force Date

The proposed by-law under D.C.A., 1997 will come into force on June 1, 2024.

7.4.3 Minimum Interest Rate Paid on Refunds and Charged for Inter-Reserve Fund Borrowing

The minimum interest rate is the Bank of Canada rate on the day on which the by-law comes into force (as per s.11 of O.Reg. 82/98).

7.5 Other Recommendations

It is recommended that Council:

> "Approve the capital project listing set out in Chapter 5 of the D.C. Background Study dated March 22, 2024, subject to further annual review during the capital budget process;"
>
> "Approve the D.C. Background Study dated March 22, 2024"
>
> "Determine that no further public meeting is required;" and
>
> "Approve the D.C. By-law as set out in Appendix G."

Chapter 8
Asset Management Plan

8. Asset Management Plan

8.1 Introduction

The D.C.A. requires that the background study must include an asset management plan (A.M.P.) related to new infrastructure. Section 10 (3) of the D.C.A. provides:

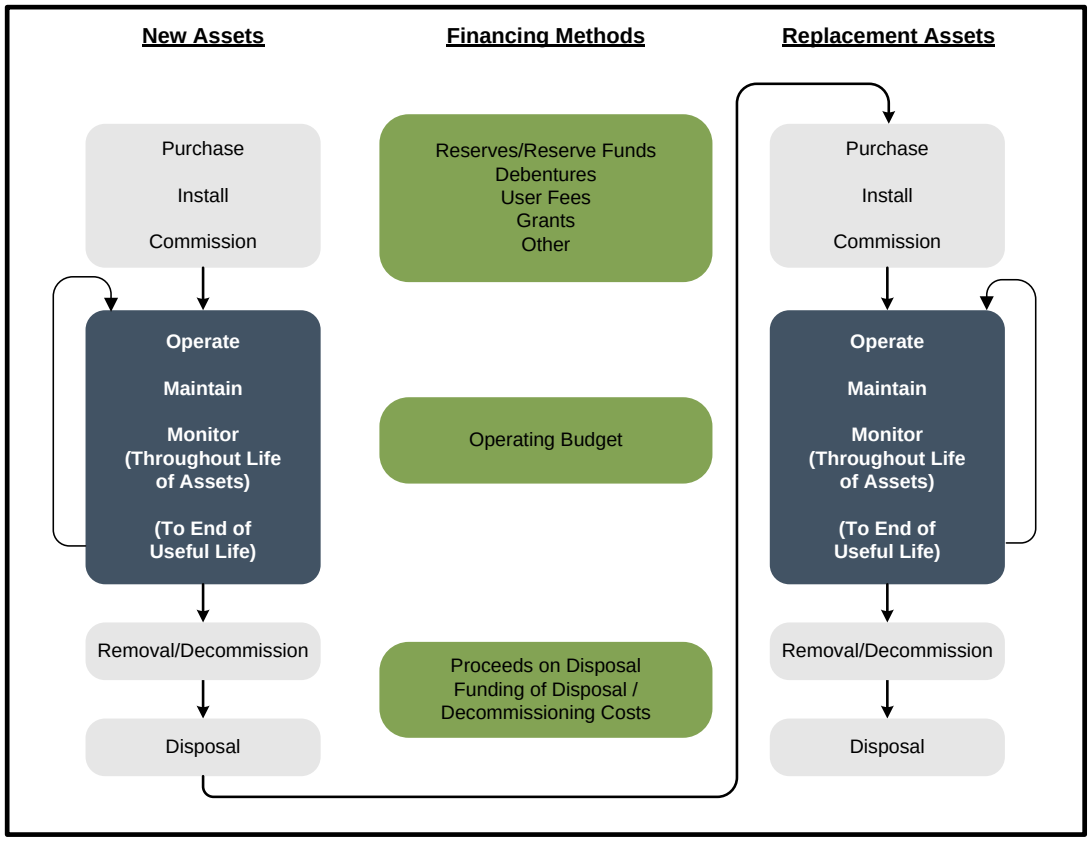
"The asset management plan shall,

(a) deal with all assets whose capital costs are proposed to be funded under the development charge by-law;
(b) demonstrate that all the assets mentioned in clause (a) are financially sustainable over their full life cycle;
(c) contain any other information that is prescribed; and
(d) be prepared in the prescribed manner."

In regard to the above, section 8 of the regulations was amended to include subsections (2), (3), and (4) which set out specific detailed requirements for transit services only. For all services except transit, there are no prescribed requirements at this time, thus allowing the municipality to define the approach to include in the background study.

At a broad level, the A.M.P. provides for the long-term investment in an asset over its entire useful life along with the funding. The schematic below identifies the costs for an asset throughout its entire lifecycle. For growth-related works, the majority of capital costs will be funded by the D.C. Non-growth-related expenditures will then be funded from non-D.C. revenues as noted below. During the useful life of the asset, there will be minor maintenance costs to extend the life of the asset along with additional program-related expenditures to provide the full services to the residents. At the end of the life of the asset, it will be replaced by non-D.C. financing sources.

It should be noted that with the recent passing of the *Infrastructure for Jobs and Prosperity Act* (I.J.P.A.) municipalities are now required to complete A.M.P.s, based on certain criteria. The amendments to the D.C.A. do not require municipalities to complete these A.M.P.s (required under I.J.P.A.) for the D.C. background study, rather the D.C.A. requires that the D.C. background study include information to show the assets to be funded by the D.C. are sustainable over their full lifecycle.



In 2012, the Province developed Building Together: Guide for municipal asset management plans which outlines the key elements for an A.M.P., as follows:

State of local infrastructure: asset types, quantities, age, condition, financial accounting valuation and replacement cost valuation.

Desired levels of service: defines levels of service through performance measures and discusses any external trends or issues that may affect expected levels of service or the municipality's ability to meet them (for example, new accessibility standards, climate change impacts).

Asset management strategy: the asset management strategy is the set of planned actions that will seek to generate the desired levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost.

Financing strategy: having a financial plan is critical for putting an A.M.P. into action. By having a strong financial plan, municipalities can also demonstrate that they have

made a concerted effort to integrate the A.M.P. with financial planning and municipal budgeting and are making full use of all available infrastructure financing tools.

Commensurate with the above, the City's prepared an A.M.P. in 2021. The "City of Burlington Asset Management Plan 2021" (2021 A.M.P.) considered key service supported by the infrastructure for Transportation, Transit, Parking, Stormwater, Corporate Facilities, Recreation, Community and Culture, Parks, Fire, Urban Forestry, Corporate Fleet and Information Technology. The Plan addressed the regulatory requirements of the state of the infrastructure, levels of service, lifecycle management strategies, and current and future risks. However, the A.M.P. does not incorporate future growth-related assets. As a result, the asset management requirement for the D.C. must be undertaken in the absence of this information.

8.2 Non-Transit City Services

In recognition to the schematic above, the following table (presented in 2024$) has been developed to provide the annualized expenditures and revenues associated with new growth. Note that the D.C.A. does not require an analysis of the non-D.C. capital needs or their associated operating costs so these are omitted from the table below. As well, as all capital costs included in the D.C. eligible capital costs are not included in the City's A.M.P., the present infrastructure gap and associated funding plan have not been considered at this time. Hence the following does not represent a fiscal impact assessment (including future tax/rate increases) but provides insight into the potential affordability of the new assets:

1. The non-D.C. recoverable portion of the projects that will require financing from municipal financial resources (i.e., rates, fees, etc.). This amount has been presented on an annual debt charge amount based on 20-year financing, totaling $3.5 million.
2. Lifecycle costs for the 2024 D.C. capital works have been presented based on a sinking fund basis. The assets have been considered over their estimated useful lives.
3. Incremental operating costs for the D.C. services (only) have been included.
4. Total incremental costs attributable to the growth-related expenditures (i.e. annual lifecycle costs and incremental operating costs) total approximately $17.0 million.

5. The resultant total annualized expenditures are approximately $20.5 million.
6. Consideration was given to the potential new tax and user fee revenue which will be generated as a result of new growth. These revenues will be available to assist in financing the expenditures above. The new operating revenues are $47.9 million.
7. In consideration of the above, the capital plan is deemed to be financially sustainable.

Table 8-1
City of Burlington
Asset Management – Future Expenditures and Associated Revenues
2024$

	2051 (Total)
Expenditures (Annualized)	
Annual Debt Payment on Non-Growth Related Capital	3,511,974
Annual Debt Payment on Post Period Capital[1]	-
Lifecycle:	
Annual Lifecycle - Municipal-wide Services	**14,310,330**
Sub-Total - Annual Lifecycle	$14,310,330
Incremental Operating Costs (for D.C. Services)	$2,703,477
Total Expenditures	**20,525,781**
Revenue (Annualized)	
Total Existing Revenue[2]	$327,701,693
Incremental Tax and Non-Tax Revenue (User Fees, Fines, Licences, etc.)	$47,898,323
Total Revenues	**$375,600,016**

[1] Interim Debt Financing for Post Period Benefit

[2] As per Sch. 10 of FIR

8.3 Transit Services

The updated A.M.P. analysis for transit services that complies with the requirements of Ontario Regulation 82/98 is summarized below:

8.3.1 State of Local Infrastructure

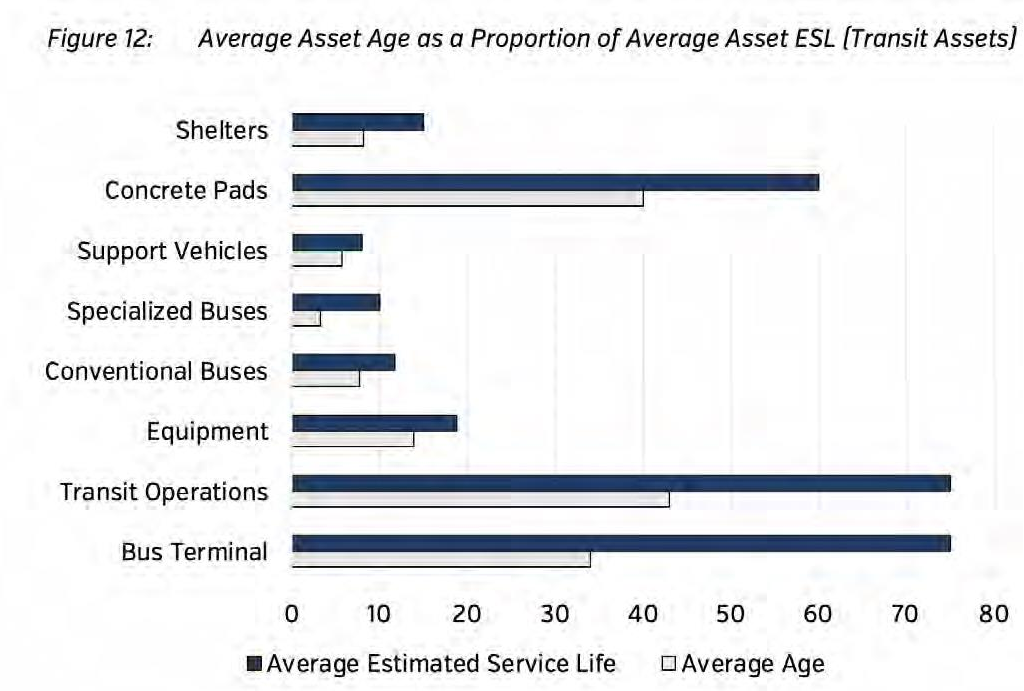
The City currently owns and manages capital assets for the provision of Transit Services including facilities, equipment, bus stops and shelters, and fleet. Tables 16 and 17 in the 2021 A.M.P. summarize the asset quantities, age, condition, and valuations for the City's Transit System. A summary of this table is extracted in Table 8-2 below, with adjustment to 2024$. In total, transit assets (excluding land) within the City have a replacement value of approximately $166.1 million.

Table 8-2
City of Burlington
Asset Inventory and Valuation
2024$

Asset Type	Asset Sub-Type	Quantity	Average Age	Average Condition	Replacement Value	
					2021$	2024$
Bus Stops	Concrete Pads	792	40	Good	$ 7,500,000	$ 9,540,457
	Shelters	251	8	Very Good		
Facilties	Bus Terminal	1	34	Fair	$ 78,000,000	$ 99,220,750
	Transit Operations	1	12	Poor		
Vehicles and Equipment	Equipment	24	13	Fair	$ 45,100,000	$ 57,369,947
	Conventional Buses	63	7	Poor		
	Specialized Buses	15	3	Fair		
	Support	6	5	Poor		
Total Replacement Value					**$130,600,000**	**$166,131,154**

Figure 8-1 is an extract from the 2021 A.M.P. which summarizes the average asset age as a proportion of the estimated service life (ESL) by asset type. The Study indicates that "average ages have not surpassed the average ESL for any asset type and are relatively younger".

Figure 8-2
City of Burlington
Extract from 2021 A.M.P. of Average Asset Age as a Percentage of ESL



8.3.2 Levels of Service

A level of service (L.O.S.) analysis gives the City an opportunity to document the L.O.S. that is currently being provided and compare it with the L.O.S. that is expected. This can be done through a review of current practices and procedures, an examination of trends or issues facing the City, or through an analysis of performance measures and targets that staff can use to measure performance.

Expected L.O.S. can be impacted by a number of factors, including:

- Legislative requirements;
- Strategic planning goals and objectives;
- Resident expectations;
- Council or City staff expectations; and
- Financial or resource constraints.

The previous task of determining the state of the City's transit asset infrastructure establishes the asset inventory and condition, to guide the refinement and upkeep of

asset infrastructure. It is important to document an expected L.O.S. that is realistic to the City. It is common to strive for the highest L.O.S., however, these service levels usually come at a cost.

Expected L.O.S. of the City's Transit Services relates to multiple asset classes and is defined through several sources. The 2021 A.M.P. indicates that the expected L.O.S. for transit services centre around Community and Technical Focused Performance Measures. As summarized in Section 4.2 of the A.M.P., Key Community Focused Performance Measures include cost-effectiveness, quality and safety. These metrics are summarized in Table 19 of the 2021 A.M.P. The Technical Focused Performance Measures are summarized in Table 20 of the 2021 A.M.P.

8.3.3 Asset Management Strategy

The asset management strategy provides the recommended course of actions required to deliver the expected L.O.S. discussed in the previous section in a sustainable fashion. The course of actions, when combined together, form a long-term forecast that includes:

a) Non-infrastructure solutions: reduce costs and/or extend expected useful life estimates;
b) Maintenance activities: regularly scheduled activities to maintain existing useful life levels, or repairs needed due to unplanned events;
c) Renewal/Rehabilitation: significant repairs or maintenance planned to increase the useful life of assets;
d) Replacement/Disposal: complete disposal and replacement of assets, when renewal or rehabilitation is no longer an option; and
e) Expansion: given planned growth as outlined in Chapter 3 of the 2019 D.C. Background Study and summarized herein.
f) Continuing to provide services at the current L.O.S., as planned by the City, results in budget impacts over the forecast period. This has to be taken into consideration, with the overall objective of reaching sustainable levels.

Section 4.3 of the 2021 A.M.P. sets out the lifecycle management strategy for all existing transit capital assets. Table 8-3 presents the annual lifecycle costs for the transit service assets included for funding in the D.C. Background Study. A fundamental approach to calculating the cost of using a capital asset and for the

provision of the revenue required when the time comes to retire and replace it is the "sinking fund method". This method first estimates the future value of the asset at the time of replacement, by inflating the current value of the asset at an assumed annual capital inflation rate. A calculation is then performed to determine annual contributions which, when invested in a reserve fund, will grow with interest to a balance equal to the future replacement cost. The contributions are calculated such that they also increase annually with inflation.

Table 8-3
City of Burlington
Annual Lifecycle Cost of D.C. Recoverable Capital Assets
2024$

Asset Type	Annual Lifecycle Cost
40' Conventional Buses	1,376,892
Specialized Transit Vehicles	30,199
Transit Support Vehicles	4,129
Supervisor Vehicles	8,243
Service Vehicles	18,846
Operations Facility	79,621
Total Annual Lifecycle Cost	**$ 1,517,929**

Risk calculations, as identified in the 2021 A.M.P., are utilized in the prioritization of assets when facing budget constraints. As the majority of assets employed in the delivery of transit services to the public are fleet, the prevailing risk to the City of not setting aside funds to pay for the lifecycle costs of its assets would mean running buses for longer than their useful life. This would mean that the City would not be meeting its expected L.O.S. of replacing assets before their useful life is consumed and could also mean fewer available buses as potential increased break-downs occur and increased operating costs to maintain an older fleet.

It is recommended that the City's procurement policies and procedures be reviewed and compared against procurement best practices to ensure resources are being allocated in an efficient manner to meet the A.M.P. strategy.

8.3.4 Financing Strategy

The financing strategy outlines the suggested financial approach to fund the recommended asset management strategy. City Report Number F-34-21, provided the

2021 Asset Management Financing Plan update to address the 2021 A.M.P. The report recommended the following:

> "Receive and file finance department report F-34-21, 2021 Asset Management Financing Plan update; and,
>
> Direct the Chief Financial Officer to consider inclusion of the increased dedicated infrastructure levy of 1.60% in the 2023 Budget, as Councils five-year commitment to the long-term infrastructure renewal program; and,
>
> Direct the Chief Financial Officer to update the Asset Management Financing Plan in alignment with updates to the Asset Management Plan every five years."

As the 2021 Asset Management Financing Plan update addresses all existing assets, this section of the A.M.P. is focused on the assets in the D.C. capital plan for transit services. More specifically, this plan addresses the expansion activities component of the plan. Table 8-4 details the financing strategy forecast, which is presented in 2024$ for the expansion activities included in the D.C. capital program for Transit Services. The gross capital costs of the program is $87.0 million over the 10-year forecast period. Not included in this financing strategy are operating costs (i.e. salaries, wages, benefits, contracted services, utility costs, internal charges, etc.).

The funding sources included in the financing strategy consist of dependable and known sources that can be relied upon during the forecast period. The anticipated grants and contributions are provided in the Dillon transit report in appendix. Controllable revenues consist of transit fares and fees and property taxation revenues. Transfers from the D.C. reserve funds have forecast based on the anticipated development in the D.C. growth forecast. These revenues have been adjusted to account for the phase-in of the D.C. over the statutory 5-year term.

The forecast indicates that D.C. revenues would account for $12.1 million or 14% of funding over the forecast period. Another $17.6 million or 20% would be anticipated from grants and other contributions. This indicates a requirement of approximately $57.3 million from other municipal funding sources (e.g. fare revenues, property taxes, etc.). This would represent funding for the benefit to existing capital costs component of the projects, as well as funding for statutory exemptions and interim financing for post-period benefit components of the plan. It should be noted, that the post-period benefit

component of the capital plan would be anticipated to be funded by future development charges.

Average annual debt charges associated with funding the other municipal sources would equate to approximately $4.8 million. In the context of the broader A.M.P. provided in Table 8-1, the capital plan for Transit Services is deemed to be financially sustainable.

Table 8-4
City of Burlington
2024-2033 A.M.P. Financing Plan for Expansion Transit Services
2024$

Description	Forecast									
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Expenditures										
Expansion Activities	17,083,480	18,578,020	8,716,500	7,245,000	7,245,000	6,283,500	6,210,000	5,175,000	5,248,500	5,175,000
Total Expenditures	**17,083,480**	**18,578,020**	**8,716,500**	**7,245,000**	**7,245,000**	**6,283,500**	**6,210,000**	**5,175,000**	**5,248,500**	**5,175,000**
Financing										
DC Reserve Fund	596,193	639,558	1,150,765	1,214,696	1,278,627	1,278,627	1,278,627	1,561,852	1,561,852	1,561,852
Anticipated Grants & Contributions	5,713,101	6,360,321	1,074,088	754,035	754,035	646,316	646,316	538,596	538,596	538,596
Other Municipal Sources (e.g. user fees, taxes)	10,774,186	11,578,142	6,491,648	5,276,269	5,212,338	4,358,557	4,285,057	3,074,552	3,148,052	3,074,552
Total Financing	**17,083,480**	**18,578,020**	**8,716,500**	**7,245,000**	**7,245,000**	**6,283,500**	**6,210,000**	**5,175,000**	**5,248,500**	**5,175,000**

Chapter 9
By-law Implementation

9. By-law Implementation

9.1 Public Consultation

This chapter addresses the mandatory, formal public consultation process (subsection 9.1.2), as well as the optional, informal consultation process (subsection 9.1.3). The latter is designed to seek the co-operation and involvement of those involved, in order to produce the most suitable policy. Section 9.2 addresses the anticipated impact of the D.C. on development, from a generic viewpoint.

9.1.1 Public Meeting of Council

Section 12 of the D.C.A., 1997 indicates that before passing a D.C. by-law, Council must hold at least one public meeting, giving at least 20 clear days' notice thereof, in accordance with the Regulation. Council must also ensure that the proposed by-law and background report are made available to the public at least two weeks prior to the (first) meeting.

Any person who attends such a meeting may make representations related to the proposed by-law.

If a proposed by-law is changed following such a meeting, the Council must determine whether a further meeting (under this section) is necessary. For example, if the by-law which is proposed for adoption has been changed in any respect, the Council should formally consider whether an additional public meeting is required, incorporating this determination as part of the final by-law or associated resolution. It is noted that Council's decision, once made, is final and not subject to review by a Court or the Local Planning Appeal Tribunal (L.P.A.T.) (formerly the Ontario Municipal Board (O.M.B.)).

9.1.2 Other Consultation Activity

There are three broad groupings of the public who are generally the most concerned with municipal D.C. policy:

1. The residential development community, consisting of land developers and builders, who are typically responsible for generating the majority of the D.C. revenues. Others, such as realtors, are directly impacted by D.C. policy. They are, therefore, potentially interested in all aspects of the charge, particularly the

quantum by unit type, projects to be funded by the D.C. and the timing thereof, and municipal policy with respect to development agreements, D.C. credits and front-ending requirements.

2. The second public grouping embraces the public at large and includes taxpayer coalition groups and others interested in public policy (e.g. in encouraging a higher non-automobile modal split).

3. The third grouping is the industrial/commercial/institutional development sector, consisting of land developers and major owners or organizations with significant construction plans, such as hotels, entertainment complexes, shopping centres, offices, industrial buildings and institutions. Also involved are organizations such as Industry Associations, the Chamber of Commerce, the Board of Trade and the Economic Development Agencies, who are all potentially interested in municipal D.C. policy. Their primary concern is frequently with the quantum of the charge, G.F.A. exclusions such as basement, mechanical or indoor parking areas, or exemptions and phase-in or capping provisions in order to moderate the impact.

9.2 Anticipated Impact of the Charge on Development

The establishment of sound D.C. policy often requires the achievement of an acceptable balance between two competing realities. The first is that high non-residential D.C.s can, to some degree, represent a barrier to increased economic activity and sustained industrial/commercial growth, particularly for capital intensive uses. Also, in many cases, increased residential D.C.s can ultimately be expected to be recovered via higher housing prices and can impact project feasibility in some cases (e.g. rental apartments).

On the other hand, D.C.s or other municipal capital funding sources need to be obtained in order to help ensure that the necessary infrastructure and amenities are installed. The timely installation of such works is a key initiative in providing adequate service levels and in facilitating strong economic growth, investment and wealth generation.

9.3 Implementation Requirements

Once the City has calculated the charge, prepared the complete background study, carried out the public process, and passed a new by-law, the emphasis shifts to implementation matters.

These include notices, potential appeals and complaints, credits, front-ending agreements, subdivision agreement conditions, and finally the collection of revenues and funding of projects.

The following provides an overview of the requirements in each case.

9.3.1 Notice of Passage

In accordance with s.13 of the D.C.A., when a D.C. by-law is passed, the municipal clerk shall give written notice of the passing and of the last day for appealing the by-law (the day that is 40 days after the day it was passed). Such notice must be given not later than 20 days after the day the by-law is passed (i.e. as of the day of newspaper publication or the mailing of the notice).

Section 10 of O.Reg. 82/98 further defines the notice requirements which are summarized as follows:

- Notice may be given by publication in a newspaper which is (in the Clerk's opinion) of sufficient circulation to give the public reasonable notice, or by personal service, fax or mail to every owner of land in the area to which the by-law relates;
- s.s.10 (4) lists the persons/organizations who must be given notice; and
- s.s.10 (5) lists the eight items which the notice must cover.

9.3.2 By-law Pamphlet

In addition to the "notice" information, the City must prepare a "pamphlet" explaining each D.C. by-law in force, setting out:

- a description of the general purpose of the D.C.s;
- the "rules" for determining if a charge is payable in a particular case and for determining the amount of the charge;

- the services to which the D.C.s relate; and
- a general description of the general purpose of the Treasurer's statement and where it may be received by the public.

Where a by-law is not appealed to the L.P.A.T., the pamphlet must be readied within 60 days after the by-law comes into force. Later dates apply to appealed by-laws.

The City must give one copy of the most recent pamphlet, without charge, to any person who requests one.

9.3.3 Appeals

Sections 13 to 19 of the D.C.A., 1997 set out requirements relative to making and processing a D.C. by-law appeal and an L.P.A.T. Hearing in response to an appeal. Any person or organization may appeal a D.C. by-law to the L.P.A.T. by filing a notice of appeal with the municipal clerk, setting out the objection to the by-law and the reasons supporting the objection. This must be done by the last day for appealing the by-law, which is 40 days after the by-law is passed.

9.3.4 Complaints

A person required to pay a D.C., or his agent, may complain to municipal council imposing the charge that:

- the amount of the charge was incorrectly determined;
- the credit to be used against the D.C. was incorrectly determined; or
- there was an error in the application of the D.C.

Sections 20 to 25 of the D.C.A., 1997 set out the requirements that exist, including the fact that a complaint may not be made later than 90 days after a D.C. (or any part of it) is payable. A complainant may appeal the decision of municipal council to the L.P.A.T.

9.3.5 Credits

Sections 38 to 41 of the D.C.A., 1997 set out a number of credit requirements, which apply where a municipality agrees to allow a person to perform work in the future that relates to a service in the D.C. by-law.

These credits would be used to reduce the amount of D.C.s to be paid. The value of the credit is limited to the reasonable cost of the work which does not exceed the average level of service. The credit applies only to the service to which the work relates, unless the City agrees to expand the credit to other services for which a D.C. is payable.

9.3.6 Front-Ending Agreements

The City and one or more landowners may enter into a front-ending agreement which provides for the costs of a project which will benefit an area in the City to which the D.C. by-law applies. Such an agreement can provide for the costs to be borne by one or more parties to the agreement who are, in turn, reimbursed in future by persons who develop land defined in the agreement.

Part III of the D.C.A., 1997 (Sections 44 to 58) addresses front-ending agreements and removes some of the obstacles to their use which were contained in the D.C.A., 1989. Accordingly, the City assesses whether this mechanism is appropriate for its use, as part of funding projects prior to municipal funds being available.

9.3.7 Severance and Subdivision Agreement Conditions

Section 59 of the D.C.A., 1997 prevents a municipality from imposing directly or indirectly, a charge related to development or a requirement to construct a service related to development, by way of a condition or agreement under s.51 or s.53 of the Planning Act, except for:

- “local services, related to a plan of subdivision or within the area to which the plan relates, to be installed or paid for by the owner as a condition of approval under Section 51 of the Planning Act;”
- “local services to be installed or paid for by the owner as a condition of approval under Section 53 of the Planning Act.”

It is also noted that s.s.59(4) of the D.C.A., 1997 requires that the municipal approval authority for a draft plan of subdivision under s.s.51(31) of the Planning Act, use its power to impose conditions to ensure that the first purchaser of newly subdivided land is informed of all the D.C.s related to the development, at the time the land is transferred.

In this regard, if the municipality in question is a commenting agency, in order to comply with subsection 59(4) of the D.C.A., 1997 it would need to provide to the approval authority, information regarding the applicable municipal D.C.s related to the site.

If the municipality is an approval authority for the purposes of Section 51 of the Planning Act, it would be responsible to ensure that it collects information from all entities which can impose a D.C.

The most effective way to ensure that purchasers are aware of this condition would be to require it as a provision in a registered subdivision agreement, so that any purchaser of the property would be aware of the charges at the time the title was searched prior to closing a transaction conveying the lands.

Appendices

Appendix A
Background Information on Residential and Non-Residential Growth Forecast

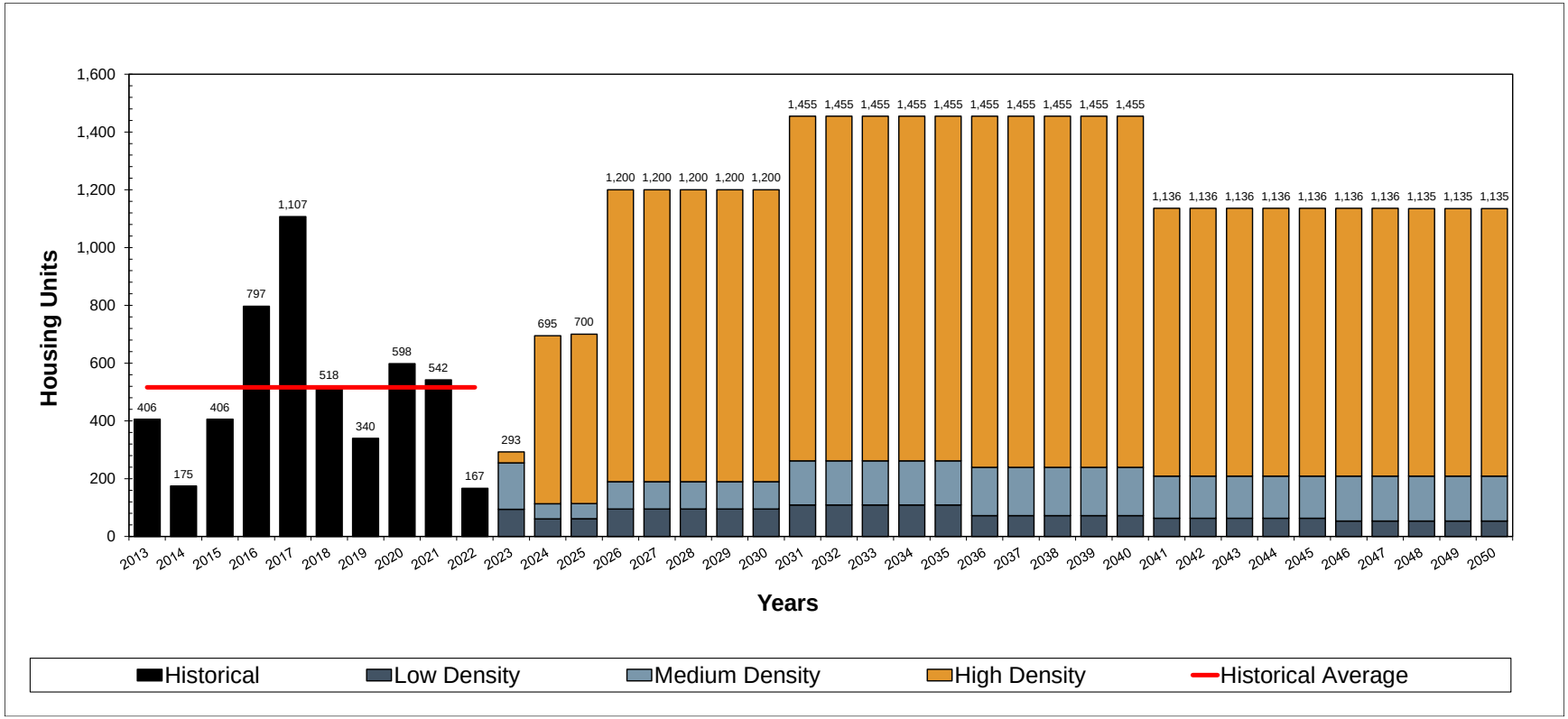
Schedule 1
City of Burlington
Residential Growth Forecast Summary

	Year	Population (Including Census Undercount)[1]	Excluding Census Undercount			Housing Units						Person Per Unit (P.P.U.): Total Population/ Total Households
			Population	Institutional Population	Population Excluding Institutional Population	Singles & Semi-Detached	Multiple Dwellings[2]	Apartments[3]	Other	Total Households	Equivalent Institutional Households	
Historical	*Mid 2011*	181,120	175,779	2,289	173,490	39,189	13,702	15,819	69	68,779	2,081	2.556
	Mid 2016	188,890	183,314	3,189	180,125	39,855	14,085	17,270	165	71,375	2,899	2.568
	Mid 2021	192,630	186,948	2,993	183,955	39,885	14,430	18,740	115	73,170	2,721	2.555
Forecast	*Early 2024*	194,100	188,372	3,018	185,354	40,145	14,585	19,181	115	74,026	2,744	2.545
	Early 2034	217,400	210,989	3,394	207,595	41,063	15,624	28,402	115	85,205	3,085	2.476
	Mid 2051	265,160	257,334	4,120	253,214	42,282	18,348	46,729	115	107,474	3,745	2.394
Incremental	**Mid 2011 - Mid 2016**	**7,770**	**7,535**	**900**	**6,635**	**666**	**383**	**1,451**	**96**	**2,596**	**818**	
	Mid 2016 - Mid 2021	**3,740**	**3,634**	**-196**	**3,830**	**30**	**345**	**1,470**	**-50**	**1,795**	**-178**	
	Mid 2021 - Early 2024	**1,470**	**1,424**	**25**	**1,399**	**260**	**155**	**441**	**0**	**856**	**23**	
	Early 2024 - Early 2034	**23,300**	**22,617**	**376**	**22,241**	**918**	**1,040**	**9,221**	**0**	**11,179**	**341**	
	Early 2024 - Mid 2051	**71,060**	**68,962**	**1,102**	**67,860**	**2,137**	**3,763**	**27,548**	**0**	**33,449**	**1,001**	

[1] Population includes the Census undercount estimated at approximately 3.0% and has been rounded.
[2] Includes townhouses and apartments in duplexes.
[3] Includes bachelor, 1-bedroom, and 2-bedroom+ apartment units.
Notes:
Numbers may not add due to rounding.

Source: Derived from Halton Region Interim Consolidation of the Regional Official Plan, November 4, 2022, which includes ROPA 48 and 49, by Watson & Associates Economists Ltd.

Figure 1
City of Burlington
Annual Housing Forecast [1]



[1] Growth forecast represents calendar year.
Source: Historical housing activity derived from Statistics Canada building permit data for the City of Burlington , 2013 to 2022.

Schedule 2
City of Burlington
Current Year Growth Forecast
Mid-2021 to Mid-2024

			Population
Mid 2021 Population			186,948
Occupants of New Housing Units, Mid 2021 to Early 2024	*Units (2)*	856	
	multiplied by P.P.U. (3)	2.193	
	gross population increase	1,876	1,876
Occupants of New Equivalent Institutional Units, Mid 2021 to Early 2024	*Units*	23	
	multiplied by P.P.U. (3)	1.100	
	gross population increase	25	25
Change in Existing Housing Unit Occupancy, Mid 2021 to Early 2024	*Units (4)*	73,170	
	multiplied by P.P.U. change rate (5)	-0.007	
	total change in population	-477	-477
Population Estimate to Early 2024			188,372
Net Population Increase, Mid 2021 to Early 2024			*1,424*

(1) 2021 population based on Statistics Canada Census unadjusted for Census undercount.

(2) Estimated residential units constructed, Mid-2021 to the beginning of the growth period assuming a six-month lag between construction and occupancy.

(3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit[1] (P.P.U.)	% Distribution of Estimated Units[2]	Weighted Persons Per Unit Average
Singles & Semi Detached	3.214	30%	0.977
Multiples (6)	2.274	18%	0.411
Apartments (7)	1.562	52%	0.805
Total		100%	2.193

[1] Based on 2021 Census custom database

[2] Based on Building permit/completion activity

(4) 2021 households taken from Statistics Canada Census.

(5) Population change occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.

Schedule 3
City of Burlington
10-Year Growth Forecast
Early-2024 to Early-2034

			Population
Early 2024 Population			188,372
Occupants of New Housing Units, Early 2024 to Early 2034	*Units (2)*	11,179	
	multiplied by P.P.U. (3)	1.842	
	gross population increase	20,587	20,587
Occupants of New Equivalent Institutional Units, Early 2024 to Early 2034	*Units*	341	
	multiplied by P.P.U. (3)	1.100	
	gross population increase	375	375
Change in Existing Housing Unit Occupancy, Early 2024 to Early 2034	*Units (4)*	74,026	
	multiplied by P.P.U. change rate (5)	0.022	
	total change in population	1,655	1,655
Population Estimate to Early 2034			210,989
Net Population Increase, Early 2024 to Early 2034			*22,617*

(1) Early 2024 Population based on:

2021 Population (186,948) + Mid 2021 to Early 2024 estimated housing units to beginning of forecast period (856 x 2.193 = 1,876) + (23 x 1.1 = 25) + (73,170 x -0.007 = -477) = 188,372

(2) Based upon forecast building permits/completions assuming a lag between construction and occupancy.

(3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit[1] (P.P.U.)	% Distribution of Estimated Units[2]	Weighted Persons Per Unit Average
Singles & Semi Detached	3.378	8%	0.277
Multiples (6)	2.431	9%	0.226
two bedrooms or less	1.885		
three bedrooms or more	2.680		
Apartments (7)	1.622	82%	1.338
one bedroom or less	1.361		
two bedrooms or more	1.800		
Total		100%	1.842

[1] Persons per unit based on adjusted Statistics Canada Custom 2021 Census database.

[2] Forecast unit mix based upon historical trends and housing units in the development process.

(4) Early 2024 households based upon 2021 Census (73,170 units) + Mid 2021 to Early 2024 unit estimate (856 units) = 74,026 units.

(5) Population change occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.

Schedule 4
City of Burlington
Long-Term Growth Forecast
Early-2024 to Mid-2051

			Population
Early 2024 Population			188,372
Occupants of New Housing Units, Early 2024 to Mid 2041	*Units (2)*	22,092	
	multiplied by P.P.U. (3)	1.828	
	gross population increase	40,388	40,388
Occupants of New Equivalent Institutional Units, Early 2024 to Mid 2041	*Units*	647	
	multiplied by P.P.U. (3)	1.100	
	gross population increase	712	712
Change in Existing Housing Unit Occupancy, Early 2024 to Mid 2041	*Units (4)*	74,026	
	multiplied by P.P.U. change rate (5)	0.047	
	total change in population	3,495	3,495
Population Estimate to Mid 2041			232,967
Net Population Increase, Early 2024 to Mid 2041			*44,595*

(1) Early 2024 Population based on:

2021 Population (186,948) + Mid 2021 to Early 2024 estimated housing units to beginning of forecast period (856 x 2.193 = 1,876) + (23 x 1.1 = 25) + (73,170 x -0.007 = -477) = 188,372

(2) Based upon forecast building permits/completions assuming a lag between construction and occupancy.

(3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit[1] (P.P.U.)	% Distribution of Estimated Units[2]	Weighted Persons Per Unit Average
Singles & Semi Detached	3.378	7%	0.237
Multiples (6)	2.431	10%	0.248
Apartments (7)	1.622	83%	1.342
one bedroom or less	1.361		
two bedrooms or more	1.800		
Total		100%	1.828

[1] Persons per unit based on Statistics Canada Custom 2021 Census database.

[2] Forecast unit mix based upon historical trends and housing units in the development process.

(4) Early 2024 households based upon 2021 Census (73,170 units) + Mid 2021 to Early 2024 unit estimate (856 units) = 74,026 units.

(5) Population change occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.

Schedule 5
City of Burlington
Summary of Active Development Applications as of 2023

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples[1]	Apartments[2]	Total
Draft Plans Approved	0	21	1,428	**1,449**
% Breakdown	*0%*	*1%*	*99%*	*100%*
Application Under Review	817	1,467	19,053	**21,337**
% Breakdown	*4%*	*7%*	*89%*	*100%*
Total	**817**	**1,488**	**20,481**	**22,786**
% Breakdown	***4%***	***7%***	***90%***	***100%***

[1] Includes townhomes and apartments in duplexes.

[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Source: Derived from City of Burlington data as of March 2023, by Watson & Associates Economists Ltd.

Schedule 6
City of Burlington
Historical Residential Building Permits
Years 2013 to 2022

Year	Residential Building Permits			
	Singles & Semi Detached	Multiples[1]	Apartments[2]	Total
2013	86	126	194	406
2014	103	72	0	175
2015	68	80	258	406
2016	75	0	722	797
2017	150	22	935	1,107
Sub-total	482	300	2,109	2,891
Average (2013 - 2017)	***96***	***60***	***422***	***578***
% Breakdown	16.7%	10.4%	73.0%	100.0%
2018	105	376	37	518
2019	69	57	214	340
2020	75	20	503	598
2021	60	70	412	542
2022	153	4	10	167
Sub-total	462	527	1,176	2,165
Average (2018 - 2022)	***92***	***105***	***235***	***433***
% Breakdown	21.3%	24.3%	54.3%	100.0%
2013 - 2022				
Total	944	827	3,285	5,056
Average	***94***	***83***	***329***	***506***
% Breakdown	18.7%	16.4%	65.0%	100.0%

[1] Includes townhouses and apartments in duplexes.
[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Source: Historical housing activity derived from Statistics Canada building permit data for the City of Burlington , 2013 to 2022.

Schedule 7
City of Burlington
Person Per Unit By Age and Type of Dwelling
2021 Census

Age of Dwelling	Singles and Semi-Detached						25 Year Average	25 Year Average Adjusted[3]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	-	-	2.747	4.647	**3.214**		
6-10	-	1.467	1.882	3.578	4.568	**3.473**		
11-15	-	-	2.182	3.451	4.364	**3.520**		
16-20	-	-	2.160	3.332	4.225	**3.380**		
20-25	-	-	1.833	3.097	4.077	**3.099**	3.337	3.378
25-35	-	-	-	3.074	3.837	**3.072**		
35+	-	1.563	1.927	2.796	3.620	**2.811**		
Total	**1.667**	**1.571**	**1.948**	**2.934**	**3.861**	**2.958**		

Age of Dwelling	Multiples[1]						25 Year Average	25 Year Average Adjusted[3]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	1.517	2.227	3.259	-	**2.274**		
6-10	-	-	2.074	2.609	-	**2.319**		
11-15	-	-	2.125	2.849	-	**2.656**		
16-20	-	-	1.944	2.680	-	**2.516**		
20-25	-	-	1.937	2.681	-	**2.479**	2.449	2.431
25-35	-	-	1.814	2.545	-	**2.269**		
35+	-	1.395	1.902	2.641	3.944	**2.450**		
Total	**0.444**	**1.432**	**1.959**	**2.672**	**4.000**	**2.454**		

Age of Dwelling	Apartments[2]						25 Year Average	25 Year Average Adjusted[3]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	1.375	1.755	2.154	-	**1.562**		
6-10	-	1.320	1.677	-	-	**1.519**		
11-15	-	1.163	1.675	2.167	-	**1.515**		
16-20	-	1.400	1.667	3.250	-	**1.662**		
20-25	-	1.271	1.691	1.846	-	**1.585**	1.569	1.622
25-35	-	1.370	1.710	2.643	-	**1.630**		
35+	1.267	1.286	1.780	2.394	-	**1.644**		
Total	**1.227**	**1.303**	**1.742**	**2.415**	**-**	**1.615**		

Age of Dwelling	All Density Types					
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total
1-5	-	1.396	1.885	2.767	4.474	**2.065**
6-10	-	1.345	1.838	3.318	4.410	**2.406**
11-15	-	1.200	1.819	3.221	4.474	**2.770**
16-20	-	1.470	1.784	3.088	4.159	**2.746**
20-25	-	1.298	1.786	2.912	3.971	**2.608**
25-35	-	1.336	1.778	2.822	3.783	**2.381**
35+	2.056	1.308	1.825	2.758	3.620	**2.486**
Total	**1.778**	**1.327**	**1.818**	**2.855**	**3.836**	**2.514**

[1] Includes townhouses and apartments in duplexes.

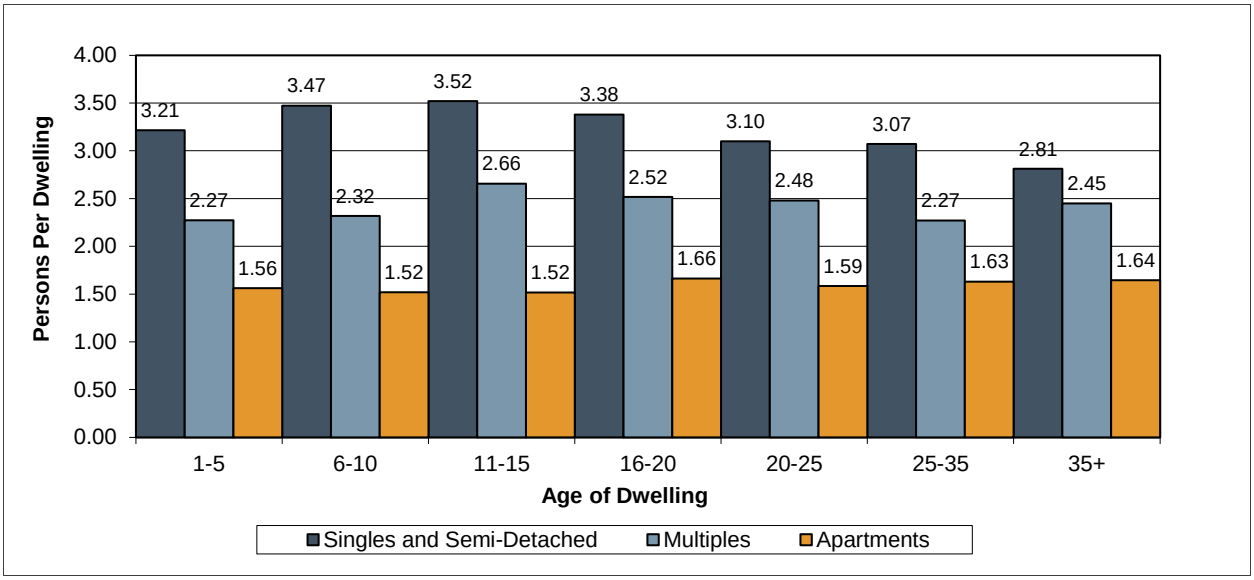
[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

[3] Adjusted based on historical trends.

Note: Does not include Statistics Canada data classified as 'Other'

P.P.U. Not calculated for samples less than or equal to 50 dwelling units, and does not include institutional population.

Schedule 8
City of Burlington
Persons Per Unit By Structural Type of Dwelling
(2021 Census)



Schedule 9a
City of Burlington
Employment Forecast, 2024 to 2051

Period	Population	Activity Rate								Employment							
		Primary	Work at Home	Industrial	Commercial/ Population Related	Institutional	Total	N.F.P.O.W.[1]	Total Including N.F.P.O.W.	Primary	Work at Home	Industrial	Commercial/ Population Related	Institutional	Total	N.F.P.O.W.[1]	Total Employment (Including N.F.P.O.W.)
Mid 2011	175,779	0.001	0.038	0.137	0.213	0.084	0.472	0.046	0.519	260	6,625	24,005	37,400	14,735	83,025	8,155	91,180
Mid 2016	183,314	0.002	0.045	0.136	0.202	0.089	0.474	0.047	0.521	440	8,165	24,853	37,098	16,265	86,820	8,670	95,490
Early 2024	188,372	0.002	0.058	0.139	0.201	0.096	0.495	0.041	0.536	340	10,834	26,169	37,872	18,025	93,240	7,673	100,913
Early 2034	210,989	0.002	0.055	0.125	0.199	0.092	0.472	0.038	0.510	340	11,616	26,347	41,889	19,324	99,516	8,064	107,580
Mid 2051	257,334	0.001	0.053	0.104	0.203	0.087	0.448	0.035	0.483	340	13,573	26,824	52,330	22,320	115,387	9,003	124,390
Incremental Change																	
Mid 2011 - Mid 2016	7,535	0.0009	0.0069	-0.0010	-0.0104	0.0049	0.0013	0.0009	0.0022	180	1,540	848	-303	1,530	3,795	515	4,310
Mid 2016 - Early 2024	5,058	-0.0006	0.0130	0.0034	-0.0013	0.0070	0.0214	-0.0066	0.0148	-100	2,669	1,317	775	1,760	6,420	-997	5,423
Early 2024 - Early 2034	22,617	-0.0002	-0.0025	-0.0140	-0.0025	-0.0041	-0.0233	-0.0025	-0.0258	0	782	178	4,017	1,299	6,276	391	6,667
Early 2024 - Mid 2051	68,962	-0.0005	-0.0048	-0.0347	0.0023	-0.0090	-0.0466	-0.0057	-0.0523	0	2,739	655	14,458	4,295	22,147	1,330	23,477
Annual Average																	
Mid 2011 - Mid 2016	1,507	0.0002	0.0014	-0.0002	-0.0021	0.0010	0.0003	0.0002	0.0004	36	308	170	-61	306	759	103	862
Mid 2016 - Early 2024	674	-0.00008	0.00173	0.00045	-0.00018	0.00093	0.00285	-0.00088	0.00197	-13	356	176	103	235	856	-133	723
Early 2024 - Early 2034	2,262	-0.00002	-0.00025	-0.00140	-0.00025	-0.00041	-0.00233	-0.00025	-0.00258	0	78	18	402	130	628	39	667
Early 2024 - Mid 2041	2,548	-0.00002	-0.00025	-0.00144	-0.00018	-0.00043	-0.00231	-0.00025	-0.00257	0	89	20	470	143	722	45	767
Early 2024 - Mid 2051	2,508	-0.00002	-0.00017	-0.00126	0.00008	-0.00033	-0.00169	-0.00021	-0.00190	0	100	24	526	156	805	48	854

[1] Statistics Canada defines no fixed place of work (N.F.P.O.W.) employees as "persons who do not go from home to the same work place location at the beginning of each shift". Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc
Note: Statistics Canada 2021 Census place of work employment data has been reviewed. The 2021 Census employment results have not been utilized due to a significant increase in work at home employment captured due to Census enumeration occurring during the provincial COVID-19 lockdown from April 1, 2021 to June 14, 2021.

Source: Derived from Halton Region Interim Consolidation of the Regional Official Plan, November 4, 2022, which includes ROPA 48 and 49, by Watson & Associates Economists Ltd.

Schedule 9b
City of Burlington
Employment & Gross Floor Area (G.F.A) Forecast, 2024 to 2051

Period	Population	Employment					Gross Floor Area in Square Feet (Estimated)[1]			
		Primary	Industrial	Commercial/ Population Related	Institutional[2]	Total	Industrial	Commercial/ Population Related	Institutional[2]	Total
Mid 2011	175,779	260	24,005	37,400	14,735	76,400				
Mid 2016	183,314	440	24,853	37,098	16,265	78,655				
Early 2024	188,372	340	26,169	37,872	18,025	82,406				
Early 2034	210,989	340	26,347	41,889	19,149	87,725				
Mid 2051	257,334	340	26,824	52,330	21,807	101,301				
Incremental Change										
Mid 2011 - Mid 2016	7,535	180	848	-303	1,530	2,255				
Mid 2016 - Early 2024	5,058	-100	1,317	775	1,760	3,751				
Early 2024 - Early 2034	22,617	0	178	4,017	1,124	5,319	195,800	1,486,300	405,100	2,087,200
Early 2024 - Mid 2051	68,962	0	655	14,458	3,782	18,895	720,500	5,349,500	1,418,100	7,488,100
Annual Average										
Mid 2011 - Mid 2016	1,507	36	170	-61	306	451				
Mid 2016 - Early 2024	674	-13	176	103	235	500				
Early 2024 - Early 2034	2,262	0	18	402	112	532	19,580	148,630	40,510	208,720
Early 2024 - Mid 2051	2,299	0	22	482	126	630	24,017	178,317	47,270	249,603

[1] Square Foot Per Employee Assumptions.
- Industrial 1,100
- Commercial/Population Related 370
- Institutional 375

[2] Forecast institutional employment and gross floor area has been adjusted downward to account for employment associated with special care units.
*Reflects Early-2024 to Mid-2051 forecast period
Note: Numbers may not add precisely due to rounding.
Source: Watson & Associates Economists Ltd.

Schedule 10
City of Burlington
Employment Category by Industry

NAICS	
	Employment by industry
	Primary Industry Employment
11	*Agriculture, forestry, fishing and hunting*
21	*Mining and oil and gas extraction*
	Industrial and Other Employment
22	*Utilities*
23	*Construction*
31-33	*Manufacturing*
41	*Wholesale trade*
48-49	*Transportation and warehousing*
56	*Administrative and support*
	Population Related Employment
44-45	*Retail trade*
51	*Information and cultural industries*
52	*Finance and insurance*
53	*Real estate and rental and leasing*
54	*Professional, scientific and technical services*
55	*Management of companies and enterprises*
56	*Administrative and support*
71	*Arts, entertainment and recreation*
72	*Accommodation and food services*
81	*Other services (except public administration)*
	Institutional
61	*Educational services*
62	*Health care and social assistance*
91	*Public administration*

Source: Watson & Associates Economists Ltd.

Appendix B
Historical Level of Service Calculations

Schedule B-1
City of Burlington
Summary of the Level of Service Ceiling by Services Considered

SUMMARY OF SERVICE STANDARDS AS PER DEVELOPMENT CHARGES ACT, 1997, AS AMENDED							
Service Category	Sub-Component	15 Year Average Service Standard					Maximum Ceiling LOS
		Cost (per capita)	Quantity (per capita)		Quality (per capita)		
Service Related to a Highway	Services Related to a Highway - Roads	$16,076.80	2.7774	Lane km of roadways	5,788,435	per km	1,412,459,418
	Services Related to a Highway - Bridges, Culverts & Structures	$1,653.00	0.4075	Number of Bridges, Culverts & Structures	4,056,442	per item	145,227,621
	Services Related to a Highway - Sidewalks and Active Transportation	$546.33	2.3344	Lane km of sidewalks and active transport	234,034	per km	47,998,915
	Services Related to a Highway - Traffic Signals & Streetlights	$262.53	160.0160	No. of Traffic Signals	1,641	per signal	23,065,098
	Services Related to a Highway - Domes and Depots	$257.67	0.1869	sq.ft.of building area	1,379	per sq.ft.	22,638,113
Fire Protection Services	Fire Protection Services - Facilities	$523.18	0.3004	Square feet of building area	1,742	per sq.ft.	14,615,556
	Fire Protection Services - Vehicles & Equipment	$117.35	0.1447	Number of vehicles	810,988	per vehicle	3,278,290
	Fire Protection Services - Small Equipment and Gear	$4.62	0.6596	Number of fully equipped firefighters	7,004	per item	129,064
Parks & Recreation Services	Parkland Development	$1,357.31	3.2452	Hectares of Parkland	418,252	per acre	30,698,280
	Recreation Facilities	$5,417.80	4.2060	sq.ft. of building area	1,288	per sq.ft.	122,534,383
Library Services	Library Services - Facilities	$513.36	0.5567	Square feet of building area	922	per sq.ft.	11,610,663
	Library Services - Collection Materials	$216.49	2.1649	No. of library collection items	100	per collection item	4,896,354
	Library Services - Vehicles	$1.96	0.0312	No. of vehicles and equipment	62,821	per vehicle	44,329

Schedule B-2
City of Burlington
Services Related to a Highway – Roads and Related

Service: Services Related to a Highway - Roads
Unit Measure: Lane km of roadways

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Value ($/km)
Arterial - Rural	29	29	29	29	29	28	28	28	28	28	28	28	29	29	29	$ 6,414,737
Arterial - Urban	382	381	379	378	377	375	374	373	371	370	370	370	363	363	363	$ 5,570,025
Collector - Commercial/ Industrial	42	43	44	45	47	48	49	50	52	53	53	53	53	53	53	$ 5,822,435
Collector - Residential	199	204	209	214	219	224	229	234	239	244	244	244	244	244	247	$ 6,087,358
Collector - Rural	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	$ 5,643,487
Total	**697**	**702**	**706**	**711**	**717**	**720**	**725**	**730**	**735**	**740**	**740**	**740**	**734**	**734**	**737**	

Population + Employment	247,610	249,617	252,179	255,255	257,621	259,213	260,444	261,969	263,320	265,303	266,422	267,061	268,104	269,497	270,255
Per Capita + Employee Standard (per 1,000)	2.81	2.81	2.80	2.79	2.78	2.78	2.78	2.79	2.79	2.79	2.78	2.77	2.74	2.73	2.73

15 Year Average	2009 to 2023
Quantity Standard	2.7774
Quality Standard	$5,788,435
Service Standard	$16,077

D.C. Amount (before deductions)	28 Year
Forecast Population + Employment	87,857
$ per Capita + Employee	$16,077
Eligible Amount	$1,412,459,418

Schedule B-3
City of Burlington
Services Related to a Highway – Bridges and Culverts

Service: Services Related to a Highway - Bridges, Culverts & Structures
Unit Measure: Number of Bridges, Culverts & Structures

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Value ($/item)
Multi-Span Bridges	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	20,115,815
Single-Span Bridges	26	26	26	26	26	26	26	26	26	26	26	26	28	28	28	2,132,847
Large Culverts	59	61	63	65	67	68	70	72	74	76	76	76	76	76	92	2,817,551
Total	**93**	**95**	**97**	**99**	**101**	**103**	**105**	**107**	**109**	**111**	**111**	**111**	**113**	**113**	**129**	

Population + Employment	247,610	249,617	252,179	255,255	257,621	259,213	260,444	261,969	263,320	265,303	266,422	267,061	268,104	269,497	270,255
Per Capita + Employee Standard (per 1,000)	0.38	0.38	0.38	0.39	0.39	0.40	0.40	0.41	0.41	0.42	0.42	0.42	0.42	0.42	0.48

15 Year Average	2009 to 2023
Quantity Standard	0.4075
Quality Standard	$4,056,442
Service Standard	$1,653

D.C. Amount (before deductions)	28 Year
Forecast Population + Employment	87,857
$ per Capita + Employee	$1,653
Eligible Amount	$145,227,621

Schedule B-4
City of Burlington
Services Related to a Highway – Sidewalks and Active Transportation

Service: Services Related to a Highway - Sidewalks and Active Transportation
Unit Measure: Lane km of sidewalks and active transportation

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Value ($/km)
Sidewalks - concrete	492.4	500.7	509.0	517.3	525.6	533.9	542.2	550.4	558.7	567.0	567.0	567.0	567.0	567.0	576.8	$189,351
Multi-Use Pathways - asphalt	35.0	36.6	38.1	39.7	41.2	42.8	44.3	45.9	47.4	49.0	49.0	49.0	49.0	49.0	49.0	$287,766
Multi-Use Pathways - gravel	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	$180,540
Guiderails	14.4	14.6	14.8	15.0	15.2	15.4	15.6	15.8	16.0	16.2	16.2	16.2	18.0	18.0	18.0	$756,740
Noise Walls																
Concrete (combined C&S posts)	2.8	2.8	2.8	2.9	2.9	3.0	3.0	3.1	3.1	3.2	3.2	3.2	4.0	4.0	4.0	$2,192,429
Wood	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	$2,490,805
Retaining Walls																
Armour Stone	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	$6,166,079
Brick	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	$2,128,128
Concrete	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	$19,807,913
Gravity Interlock	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	$2,218,541
Stone Mortar	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	$1,639,066
Wood	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	$3,022,223
Total	**547.6**	**557.7**	**567.8**	**578.0**	**588.1**	**598.3**	**608.4**	**618.5**	**628.6**	**638.8**	**638.8**	**638.8**	**641.5**	**641.5**	**651.3**	

Population + Employment	247,610	249,617	252,179	255,255	257,621	259,213	260,444	261,969	263,320	265,303	266,422	267,061	268,104	269,497	270,255
Per Capita + Employee Standard (per 1,000)	2.21	2.23	2.25	2.26	2.28	2.31	2.34	2.36	2.39	2.41	2.40	2.39	2.39	2.38	2.41

15 Year Average	2009 to 2023
Quantity Standard	2.3344
Quality Standard	$234,034
Service Standard	$546

D.C. Amount (before deductions)	28 Year
Forecast Population + Employment	87,857
$ per Capita + Employee	$546
Eligible Amount	$47,998,915

Schedule B-5
City of Burlington
Services Related to a Highway – Traffic Signals and Streetlights

Service: Services Related to a Highway - Traffic Signals & Streetlights
Unit Measure: No. of Traffic Signals

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Value ($/item)
Streetlights (Fixtures and Plant)	6,510	6,568	6,627	6,685	6,743	6,802	6,860	6,918	6,977	7,035	7,035	7,035	10,959	10,959	10,959	$2,912
Traffic Signals	172	177	177	177	177	177	177	177	177	177	179	179	179	179	179	$204,000
Signs (Traffic & Highway Gateway) and Posts	36,988	36,988	36,988	36,988	36,988	36,988	36,988	36,988	36,988	36,988	36,988	36,988	21,194	21,194	21,194	$298
Total	**43,670**	**43,733**	**43,792**	**43,850**	**43,908**	**43,967**	**44,025**	**44,083**	**44,142**	**44,200**	**44,202**	**44,202**	**32,332**	**32,332**	**32,332**	

Population + Employment	247,610	249,617	252,179	255,255	257,621	259,213	260,444	261,969	263,320	265,303	266,422	267,061	268,104	269,497	270,255
Per Capita + Employee Standard (per 1,000)	176.37	175.20	173.65	171.79	170.44	169.62	169.04	168.28	167.64	166.60	165.91	165.51	120.60	119.97	119.64

15 Year Average	2009 to 2023
Quantity Standard	160.0160
Quality Standard	$1,641
Service Standard	$263

D.C. Amount (before deductions)	28 Year
Forecast Population + Employment	87,857
$ per Capita + Employee	$263
Eligible Amount	$23,065,098

Schedule B-6
City of Burlington
Services Related to a Highway – Domes and Depots

Service: Services Related to a Highway - Domes and Depots
Unit Measure: sq.ft.of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 $/sq.ft
Operations Centre-Main Building (Roads portion)	25,042	25,042	25,042	25,042	25,042	25,042	25,042	25,042	25,042	25,042	25,042	25,042	25,042	25,042	16,729	$2,528
Operations Center-West Storage Building (Roads portion)	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	1,603	$192
Operations Centre-Salt Dome	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	13,132	13,132	13,132	$188
Operations Centre-Sand Dome	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	5,005	$322
Operations Center-East Storage Building	10,290	10,290	10,290	10,290	10,290	10,290	10,290	10,290	10,290	10,290	10,290	10,290	10,286	10,286	10,286	$189
Total	**47,743**	**47,743**	**47,743**	**47,743**	**47,743**	**47,743**	**47,743**	**47,743**	**47,743**	**47,743**	**47,743**	**47,743**	**55,866**	**55,866**	**46,756**	

Population + Employment	247,610	249,617	252,179	255,255	257,621	259,213	260,444	261,969	263,320	265,303	266,422	267,061	268,104	269,497	270,255
Per Capita + Employee Standard	0.1928	0.1913	0.1893	0.1870	0.1853	0.1842	0.1833	0.1822	0.1813	0.1800	0.1792	0.1788	0.2084	0.2073	0.1730

15 Year Average	2009 to 2023
Quantity Standard	0.1869
Quality Standard	$1,379
Service Standard	$258

D.C. Amount (before deductions)	28 Year
Forecast Population + Employment	87,857
$ per Capita + Employee	$258
Eligible Amount	$22,638,113

Schedule B-7
City of Burlington
Fire Protection Services – Facilities

Service: Fire Protection Services - Facilities
Unit Measure: Square feet of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024$ Building Repl. Value/sq.ft.	2024$ Value/sq.ft. with land, site works, etc.
Station No.1 - 1255 Fairview Street	19,872	19,872	19,872	19,872	19,872	19,872	19,872	21,409	21,409	21,409	21,409	21,409	21,409	21,409	21,409	$1,411	$1,860
Station No.1 - Training Tower	1,913	1,913	1,913	1,913	1,913	1,913	1,913	1,913	1,913	1,913	1,913	1,913	1,913	1,913	1,913	$313	$917
Station No.1 - Service Building	-	-	-	-	-	-	-	6,232	6,232	6,232	6,232	6,232	6,232	6,232	6,232	$1,110	$1,637
Station No.2 - 2300 Upper Middle	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	8,310	$1,183	$1,632
Station No.3 - 1044 Waterdown Rd.	7,707	7,707	7,707	7,707	7,707	7,707	7,707	7,707	7,707	7,707	7,707	7,707	7,707	7,707	7,707	$1,344	$1,903
Station No.4 - 711 Appleby Line	8,320	8,320	8,320	8,320	8,320	8,320	8,320	8,320	8,320	8,320	8,320	8,320	8,320	8,320	8,320	$1,245	$1,763
Station No.5 - 2241 Kilbride St.	4,693	4,693	4,693	4,693	4,693	4,693	4,693	4,693	4,693	4,693	4,693	4,693	4,693	4,693	4,693	$2,023	$2,483
Station No.6 - 455 Cumberland Ave.	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	$962	$1,317
Station No.7 - 4100 Dundas St.	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	$1,202	$1,534
Station No.8 - 1837 Ironstone Drive	-	-	7,255	7,255	7,255	7,255	7,255	7,255	7,255	7,255	7,255	7,255	7,255	7,255	7,255	$1,280	$1,941
Total	**68,016**	**68,016**	**75,271**	**75,271**	**75,271**	**75,271**	**75,271**	**83,040**	**83,040**	**83,040**	**83,040**	**83,040**	**83,040**	**83,040**	**83,040**		

Population + Employment	247,610	249,617	252,179	255,255	257,621	259,213	260,444	261,969	263,320	265,303	266,422	267,061	268,104	269,497	270,255
Per Capita + Employee Standard	0.2747	0.2725	0.2985	0.2949	0.2922	0.2904	0.2890	0.3170	0.3154	0.3130	0.3117	0.3109	0.3097	0.3081	0.3073

15 Year Average	2009 to 2023
Quantity Standard	0.3004
Quality Standard	$1,742
Service Standard	$523

D.C. Amount (before deductions)	10 Year
Forecast Population + Employment	27,936
$ per Capita + Employee	$523
Eligible Amount	$14,615,556

Schedule B-8
City of Burlington
Fire Protection Services – Vehicles and Equipment

Service: Fire Protection Services - Vehicles & Equipment
Unit Measure: Number of vehicles

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Value ($/Vehicle)
Emergency Response																
Pump / Rescue	6	6	9	9	9	7	7	7	7	7	7	7	6	6	6	$1,700,000
Ladder (Aerial)	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	$2,250,000
Support Unit	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	$1,130,200
Tanker	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$993,300
Quint	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	$1,933,400
Rescue	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	$1,233,100
Platoon Chief	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	$109,900
Reserve	-	-	-	-	-	3	3	3	3	3	3	3	4	4	5	$1,793,400
Support																
Fire Prevention & PubEd	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	$77,200
Training	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	$99,100
Administration	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	$91,800
Maintenance	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	$111,700
Specialized	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	$37,700
Total	**36**	**36**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	

Population + Employment	247,610	249,617	252,179	255,255	257,621	259,213	260,444	261,969	263,320	265,303	266,422	267,061	268,104	269,497	270,255
Per Capita + Employee Standard (per 1,000)	0.15	0.14	0.15	0.15	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14

15 Year Average	2009 to 2023
Quantity Standard	0.1447
Quality Standard	$810,988
Service Standard	$117

D.C. Amount (before deductions)	10 Year
Forecast Population + Employment	27,936
$ per Capita + Employee	$117
Eligible Amount	$3,278,290

Schedule B-9
City of Burlington
Fire Protection Services – Small Equipment and Gear

Service: Fire Protection Services - Small Equipment and Gear
Unit Measure: Number of fully equipped firefighters

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Value ($/item)
Number of equipped fire fighters	168	172	172	172	172	172	172	172	172	172	172	172	172	172	176	$7,000
Total	**168**	**172**	**172**	**172**	**172**	**172**	**172**	**172**	**172**	**172**	**172**	**172**	**172**	**172**	**176**	

Population + Employment	247,610	249,617	252,179	255,255	257,621	259,213	260,444	261,969	263,320	265,303	266,422	267,061	268,104	269,497	270,255
Per Capita + Employee Standard (per 1,000)	0.68	0.69	0.68	0.67	0.67	0.66	0.66	0.66	0.65	0.65	0.65	0.64	0.64	0.64	0.65

15 Year Average	2009 to 2023
Quantity Standard	0.6596
Quality Standard	$7,004
Service Standard	$5

D.C. Amount (before deductions)	10 Year
Forecast Population + Employment	27,936
$ per Capita + Employee	$5
Eligible Amount	$129,064

Schedule B-10
City of Burlington
Parks and Recreation Services – Parkland Development

Service: Parkland Development
Unit Measure: Hectares of Parkland

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Value ($/Hectare)
City	140	140	140	207	207	207	207	207	207	207	207	207	207	207	235	$391,516
Community	129	129	129	136	136	136	136	136	136	136	136	136	136	136	138	$680,424
Neighbourhood	144	144	149	152	152	152	152	152	152	152	152	152	152	152	141	$290,941
Parkette	8	8	8	8	8	8	8	8	9	9	9	9	9	9	12	$1,570,776
Special Resources	90	90	90	90	90	90	90	104	104	108	108	108	108	108	171	$215,961
Total	**510**	**510**	**515**	**593**	**593**	**593**	**593**	**607**	**608**	**612**	**612**	**612**	**612**	**612**	**698**	

Population	172,548	173,886	175,779	178,404	180,319	181,460	182,240	183,314	184,165	185,648	186,267	186,405	186,948	187,841	188,099
Per Capita Standard (per 1,000 population)	2.96	2.94	2.93	3.32	3.29	3.27	3.25	3.31	3.30	3.30	3.29	3.28	3.28	3.26	3.71

15 Year Average	2009 to 2023
Quantity Standard	3.2452
Quality Standard	$418,252
Service Standard	$1,357

D.C. Amount (before deductions)	10 Year
Forecast Population	22,617
$ per Capita	$1,357
Eligible Amount	$30,698,280

Schedule B-11
City of Burlington
Parks and Recreation Services – Recreation Facilities

Service: Recreation Facilities
Unit Measure: sq.ft. of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 $/sq.ft
Arena	242,360	313,046	313,046	313,046	313,046	313,046	313,046	313,046	313,046	313,046	313,046	313,046	313,046	313,046	337,557	$809
Community Centre	174,753	174,753	174,753	174,753	228,637	228,637	240,358	240,358	240,358	240,358	240,358	240,358	244,664	244,664	516,006	$2,027
Maintenance Building	35,203	35,203	35,203	35,203	38,018	38,018	38,018	38,018	38,018	38,018	45,325	45,325	45,325	45,325	45,325	$1,580
Operations Centre (Parks & Rec. Portion)	27,443	27,443	27,443	27,443	27,443	27,443	27,443	27,443	27,443	27,443	27,443	27,443	16,695	16,695	16,695	$2,313
Pool	48,836	48,836	48,836	48,836	48,836	48,836	48,836	48,836	48,836	48,836	48,836	48,836	48,836	48,836	48,836	$989
Specialty	88,296	88,296	88,296	88,296	88,296	88,296	88,296	88,296	88,296	88,296	88,296	88,296	88,296	88,296	90,202	$775
Tyandaga	15,037	15,037	15,037	15,037	15,037	15,037	15,037	15,037	15,037	15,037	15,037	15,037	15,037	15,037	15,037	$905
Total	**631,928**	**702,614**	**702,614**	**702,614**	**759,313**	**759,313**	**771,034**	**771,034**	**771,034**	**771,034**	**778,341**	**778,341**	**771,899**	**771,899**	**1,069,658**	

Population	172,548	173,886	175,779	178,404	180,319	181,460	182,240	183,314	184,165	185,648	186,267	186,405	186,948	187,841	188,099
Per Capita Standard	3.6623	4.0407	3.9971	3.9383	4.2109	4.1845	4.2309	4.2061	4.1866	4.1532	4.1786	4.1755	4.1290	4.1093	5.6867

15 Year Average	2009 to 2023
Quantity Standard	4.2060
Quality Standard	$1,288
Service Standard	$5,418

C. Amount (before deductio	10 Year
Forecast Population	22,617
$ per Capita	$5,418
Eligible Amount	$122,534,383

Schedule B-12
City of Burlington
Library Services – Facilities

Service: Library Services - Facilities
Unit Measure: Square feet of building area

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Bld'g Value ($/sq.ft.)	2024 Value/sq.ft. with land, site works, etc.
Central Library	63,313	63,313	63,313	63,313	63,313	63,313	63,313	63,313	63,313	63,313	63,313	63,313	63,313	63,313	63,313	$613	$782
Aldershot	5,000	5,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	$863	$1,143
Appleby	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	$863	$1,143
Brant Hills	6,878	6,878	6,878	6,878	6,878	6,878	6,878	6,878	6,878	6,878	6,878	6,878	6,878	6,878	6,878	$1,167	$1,494
Kilbride	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	$863	$1,143
Tansley	9,494	9,494	9,494	9,494	9,494	9,494	9,494	9,494	9,494	9,494	9,494	9,494	9,494	9,494	9,494	$834	$1,257
Alton	-	-	-	-	11,840	11,840	11,840	11,840	11,840	11,840	11,840	11,840	11,840	11,840	11,840	$583	$790
Total	**91,085**	**91,085**	**93,085**	**93,085**	**104,925**	**104,925**	**104,925**	**104,925**	**104,925**	**104,925**	**104,925**	**104,925**	**104,925**	**104,925**	**104,925**		

Population	172,548	173,886	175,779	178,404	180,319	181,460	182,240	183,314	184,165	185,648	186,267	186,405	186,948	187,841	188,099
Per Capita Standard	0.5279	0.5238	0.5296	0.5218	0.5819	0.5782	0.5758	0.5724	0.5697	0.5652	0.5633	0.5629	0.5613	0.5586	0.5578

15 Year Average	2009 to 2023
Quantity Standard	0.5567
Quality Standard	$922
Service Standard	$513

D.C. Amount (before deductions)	10 Year
Forecast Population	22,617
$ per Capita	$513
Eligible Amount	$11,610,663

Schedule B-13
City of Burlington
Library Services – Collection Materials

Service: Library Services - Collection Materials
Unit Measure: No. of library collection items

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Value ($/item)
Library Collection Materials	382,348	391,870	387,250	389,109	389,109	396,470	417,461	382,608	391,964	409,913	392,613	358,599	401,622	401,503	422,245	$100
Total	**382,348**	**391,870**	**387,250**	**389,109**	**389,109**	**396,470**	**417,461**	**382,608**	**391,964**	**409,913**	**392,613**	**358,599**	**401,622**	**401,503**	**422,245**	

Population	172,548	173,886	175,779	178,404	180,319	181,460	182,240	183,314	184,165	185,648	186,267	186,405	186,948	187,841	188,099
Per Capita Standard	2.22	2.25	2.20	2.18	2.16	2.18	2.29	2.09	2.13	2.21	2.11	1.92	2.15	2.14	2.24

15 Year Average	2009 to 2023
Quantity Standard	2.1649
Quality Standard	$100
Service Standard	$216

D.C. Amount (before deductions)	10 Year
Forecast Population	22,617
$ per Capita	$216
Eligible Amount	$4,896,354

Schedule B-14
City of Burlington
Library Services – Vehicles and Equipment

Service: Library Services - Vehicles
Unit Measure: No. of vehicles and equipment

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 Value ($/item)
Vehicle	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$83,100
Software																
OCS public printing	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	$44,500
Integrated Library System	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$178,100
Cassie	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$4,500
Website	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$59,400
Digital signage software	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	$5,900
Public event and room booking	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	$25,200
Total	**4**	**4**	**4**	**4**	**5**	**6**	**6**	**6**	**6**	**7**	**7**	**7**	**7**	**7**	**7**	

Population	172,548	173,886	175,779	178,404	180,319	181,460	182,240	183,314	184,165	185,648	186,267	186,405	186,948	187,841	188,099
Per Capita Standard (per 1,000 population)	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04

15 Year Average	2009 to 2023
Quantity Standard	0.0312
Quality Standard	$62,821
Service Standard	$2

D.C. Amount (before deductions)	10 Year
Forecast Population	22,617
$ per Capita	$2
Eligible Amount	$44,329

Appendix C
Technical Appendix for Services Related to a Highway

DILLON CONSULTING

City of Burlington

2024 Development Charges Background Study

Services Related to a Highway

March 2024 - 23-6935

Table of Contents

1.0	Introduction	1
2.0	Level of Service	2
3.0	Local Service Policy	4
4.0	Benefit to Existing Community	5
5.0	Grants, Subsidies, and Other Contributions	10
6.0	Post Period Benefit	11
7.0	Development Charge Eligible Capital Projects	12
8.0	Conclusions	26

1.0 Introduction

The following report is a technical appendix to Burlington's 2024 Development Charges (DC) Background Study. The purpose of this report is to provide an overview of the changes to Burlington's highway (road) network within the DC study period (2024 to 2051), identify the capital costs associated with improvements and apportion the capital expenditures to existing and future developments within the same study period.

Development Charges are a tool for municipalities to ensure that "growth pays for growth" – meaning that developments that grow the municipality cover the costs associated with extending municipal services for the new growth caused by these developments. Through the application of DC, the development community contributes an appropriate share of infrastructure and capital costs (including those for public highways) for necessary growth related improvements over the twenty eight-year planning period. The Development Charges Act (DCA), 1997, as amended regulates when and how municipalities may collect DC.

2.0 Level of Service

Level of Service is a useful measure to understand how quantitatively and qualitatively the infrastructure of a municipality is performing and the value of City assets per capita. For transportation infrastructure in the City of Burlington, level of service is measured in 5 distinct categories:

- Roads;
- Bridges, Culverts, and Structures;
- Sidewalks and Active Transportation;
- Traffic Signals and Streetlights; and
- Domes and Depots.

Level of Service for 'Roads' and 'Sidewalks and Active Transportation' are calculated on a lane kilometers per capita (including employees) basis. Over the fifteen years prior to this study, lane kilometers per capita of 'Roads' infrastructure has been steadily declining, while lane kilometers per capita of 'Sidewalks and Active Transportation' infrastructure has been steadily increasing. This is the result of Burlington's policy directions in their Official Plan and the Integrated Mobility Plan to prioritize more active transportation infrastructure and transit investments. This trend is expected to continue as mobility for new population growth will be increasingly accommodated through non-automobile modes and therefore require a smaller proportional increase in lane kilometers of 'Roads' and a larger proportional increase in lane kilometers of 'Sidewalks and Active Transportation'.

Level of service for 'Bridges, Culverts, and Structures', and 'Traffic Signals and Streetlights' are calculated on an item per capita (including employees) basis. The measure for 'Bridges, Culverts, and Structures' has increased slightly throughout the previous fifteen years. The measure for 'Traffic Signals and Streetlights' has decreased (largely as the result of a significant one year decline in 'Signs and Posts' due to a methodological change in data collection between 2020 and 2021), throughout the previous fifteen years.

Level of service for 'Domes and Depots' are calculated based on the building area square footage per capita (including employees) basis. These measures have remained relatively stable throughout the previous fifteen years.

The level of service for the twenty eight-year Development Charge period is based on a historical average and projected population and employment that determines the amount of infrastructure investment that is eligible to be recovered through development charges. The Benefit to Existing section in this report sets out the ratio of benefit to existing residents and benefit to new growth, which is the financial responsibility of the development community that is attributable to various infrastructure improvements. The level of service for 'Roads', 'Bridges, Culverts, and Structures', 'Sidewalks and Active Transportation', Traffic Signals and Streetlights', and 'Domes and Depots' are presented in Appendix B of the DC Background Study prepared by Watson & Associates Economists Ltd.

3.0 Local Service Policy

The Local Service Policy (LSP) sets out the City's General Policy Guidelines on Development Charges (DC) and local service funding for Services Related to a Highway. The guidelines outline in general terms, the size and nature of the engineered infrastructure that is included in the study as a development charge project, versus infrastructure that is considered as a local service, to be emplaced separately by landowners, pursuant to a development agreement. The LSP for Services Related to a Highway is presented in Appendix F of the DC Background Study prepared by Watson & Associates Economists Ltd.

4.0 Benefit to Existing Community

The DCA stipulates that "the increase in the need for service must be reduced by the extent to which an increase in service to meet the increased need would benefit existing development". As such, a portion of the capital costs identified in DC background studies are deemed to benefit the existing community and are referred to as the "benefit to existing (BTE)". These costs are deducted from the gross capital costs and are essentially paid for by the existing residents and business (the community) through municipal property taxes and/or user fees.

The portion of the capital cost that is attributable to BTE typically varies by project type or grouping of projects depending on the extent of benefit. Said another way, to what extent is the project needed to support growth, bearing in mind the principle that "growth pays for growth".

Out of the highway related infrastructure needs identified for the City, certain improvements will benefit current residents and would comprise the non-growth component of the DC. The improvements, required to accommodate higher volumes of traffic and increased demand on the existing infrastructure directly attributable to new developments, are eligible for funding through Development Charges. All road reconstruction projects where the is no widening and the works are done due to the deterioration of the road, and not to add any person capacity, are considered 100% benefit to existing and the cost is borne 100% by the existing community. All new road projects have been determined to be 100% growth related as they are required to meet the needs of new development. These projects are considered 100% benefit to growth. Future reconstruction, widening (for any mode) and urbanization projects may benefit both existing population and support growth and therefore have both a BTE community component and a growth component.

Table 1 outlines the percentage allocation and the rationale behind the apportioning of BTE community for various project types. In some cases, project types were renamed and redefined from the City's previous DC Background Study to better align with the range of project types included in the Integrated Mobility Plan. The BTE community discounts adopted for this DC Background Study are the same as the previous 2019 DC By-Law.

Table 1: Benefit to Existing Community Apportionment Rationale

Project Type	Rationale	Benefit to Existing (%)
Highway Resurfacing	Where a highway is resurfaced due to deterioration. 100% of the cost is BTE community. These projects are excluded from the project list.	100%
Highway Reconstruction (no lane expansion)	Where a highway is reconstructed due to deterioration and there is no lane expansion, capacity increase, or intersection improvements, 100% of the cost is BTE community. These projects are excluded from the project list. In cases where a highway is reconstructed due to deterioration and there is no lane expansion, but an increase in capacity and/or intersection improvements are achieved, 60% - <100% of the cost is BTE community.	60% - 100%
Highway Widening	Highways are widened to increase capacity to help accommodate growth. The BTE community deduction is based on the cost of repaving/reconstructing existing lanes (plus cost of rehabilitating existing structure if widening over a major structure).	
New Highway	No deduction for BTE community as new highway links are built to increase capacity needed to serve growth.	0%
Active Transportation	Active transportation includes sidewalks, on-road bicycle lanes, off-road trails, multi-use pathways, active transportation crossing structures, bike parking facilities, and crosswalks as well as other amenities and related programs; largely within the shared ROW. They play a complementary role with public transit, traffic management and transportation demand management infrastructure, amenities and programs aimed at decreasing single-occupant vehicle use. For this reason	0% - 10%

Project Type	Rationale	Benefit to Existing (%)
	it is critical to helping to manage growth in travel demand due to new development and central to direction the city has adopted in their Official Plan and Integrated Mobility Plan (IMP) and as part of the complete streets approach to managing transportation. Collectively, active transportation looks to reduce the number of vehicles on City roads, particularly single occupant vehicles, thereby reducing the road infrastructure that would need to be added to accommodate the same demand. The IMP targets an increase in active transportation mode split from 6% in 2016 to 15% by 2051. This reduces the capital infrastructure costs for such things as road widenings, but requires the installation of other infrastructure, amenities and programs. To reflect that there is some benefit to existing community, a 10% deduction was applied. Where an active transportation facility (i.e. bike lane) requires an existing road to be widened, 10% of the cost is BTE community. Where an active transportation facility is constructed within an area of new development, 0% of the cost is BTE community.	
Intersection improvements at existing intersections	Intersection improvements are required as a result of increased traffic due to growth. This could include new or modified traffic signals, intersections turn lanes, roundabouts, street lighting, and any related land acquisition. A 5% deduction was applied to reflect that for some projects there are geometric improvements or updated traffic signal technology that benefits the existing	5%

Project Type	Rationale	Benefit to Existing (%)
	community. The remainder of the cost is allocated to growth understanding that the need for improvements is required to help accommodate growth.	
Traffic signal / pedestrian crossing signal	New traffic / pedestrian signals are required as a result of increased traffic due to growth. A 5% deduction was applied to reflect that for some projects there are geometric improvements or updated traffic signal technology that benefits the existing community. The remainder of the cost is allocated to growth understanding that the need for improvements is required to help accommodate growth.	5%
Traffic Management	Traffic management projects are typically to address a bottleneck or a problem caused by growth (e.g. traffic infiltration). This could include minor improvements/ modifications to traffic signals or traffic calming features.	50%
Priority measures for transit	Priority measures for transit required to prepare a highway for serving transit effectively. This could include dedicated transit lanes, shared transit lanes, transit signals, transit priority signals, Queue jump lanes, architecturally distinctive passenger amenities, bus bays, bus stop infrastructures and terminals located within the road allowance.	50%
Highway grade separation (freeway interchange)	Highway grade separations are designed to address capacity deficiencies, safety concerns, and provide opportunities for other users in the road network resulting from growth in traffic. No deduction for BTE community as new freeway interchanges are built to increase capacity needed to serve growth.	0%

Project Type	Rationale	Benefit to Existing (%)
Rail grade separation	Rail grade separations are designed to improve safety and eliminate delays due to train movements, thereby increasing capacity. The BTE community deduction is based on delay savings and exposure index.	

5.0 Grants, Subsidies, and Other Contributions

Any applicable grants, subsidies and other contributions made or anticipated by the City shall be deducted from the eligible DC capital costs in accordance with the DCA. Grants are primarily from other levels of government and their amounts vary by project. For the projects included in the Transportation Background Study for the DC update, grants, subsidies, and other contributions have been considered and deducted from the gross capital costs.

6.0 Post Period Benefit

Post-Period Benefit (PPB) refers to the cost of oversized infrastructure capacity which is not required by development anticipated within the DC study period (2034 – 2051), and will clearly benefit development in a subsequent period (post 2051).

For the most part, the various Services Related to a Highway are identified through master planning and traffic modeling. The projects included in the Transportation Background Study for the DC update are meant to address the multi-modal transportation needs for the trips that will be generated from proposed/planned growth that would add to the City road system. The projects included in the planning horizon are meant to address needs for the planning horizon year (2051) and are not designed for oversizing provisions.

All capital projects for Services Related to a Highway are scheduled for implementation by the 2051 DC horizon year and as such, no Services Related to a Highway capital projects have been assigned a PPB.

7.0 Development Charge Eligible Capital Projects

In order to produce a recommended project list, a review was completed of the City's Integrated Mobility Plan (IMP), Multi-year Community Investment Plan (MYCIP), 2024 Capital Budget and Forecast, and 2019 Development Charge Background Study. This review generated a project list that was refined based on discussions with City Staff to remove projects that have been completed or were not attributable to new growth and development.

Costs for these projects were drawn from the aforementioned sources (i.e. IMP, MYCIP, 2024 Capital Budget and Forecast, and 2019 Development Charge Background Study) and were provided by City staff, with the exception of 7 projects from the IMP that were costed by Dillon Consulting Limited. Dillon provided the project costs for the 3 IMP 'AT overpass/underpass' projects (Table 2 - Projects Numbers: 154, 155, and 156) and the 4 IMP 'New Highways' projects (Table 2 – Project Numbers: 195, 196, 197, and 198). All costs are presented as 2024 dollars.

The potential DC recoverable costs have been allocated 78% residential and 22% non-residential based on the incremental growth in population to employment, for the twenty eight-year planning period.

A list of the recommended projects and associated costs is presented in **Table 2**.

Table 2: Highway Projects 2024-2051

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
Bridge/Grade Separation/Culvert Projects											
1	RD-RA-769	Mainway Grade Separation	2030	500,000	-	500,000	120,000		380,000	296,400	83,600
2	RD-RA-769	Mainway Grade Separation	2033	25,000,000	-	25,000,000	6,000,000	4,404,333	14,595,667	11,384,620	3,211,047
Intersection Improvement Projects											
3	RD-RR-763	Harvester Road at Guelph Line Intersection Improvements & Widening	2027	2,020,000	-	2,020,000	101,000	959,500	959,500	748,410	211,090
Widening Projects											
4	RD-RA-787	Walker's Line Widening (Highway 407 to No. 1 Sideroad)	2033	1,914,500	-	1,914,500	1,531,600		382,900	298,662	84,238
5		Walker's Line Widening (Highway 407 to No. 1 Sideroad) - Active Transportation	2033	997,500	-	997,500	99,750		897,750	700,245	197,505
Reconstruction Projects											
6	RD-RA-1108	King Road Rehabilitation (King Forest Court to Top of Escarpment)	2026	200,000	-	200,000	180,000		20,000	15,600	4,400
7	RD-RA-1108	King Road Rehabilitation (King Forest Court to Top of Escarpment)	2028	4,122,000	-	4,122,000	3,709,800		412,200	321,516	90,684
8		King Road Rehabilitation (King Forest Court to Top of Escarpment) - Active Transportation	2028	2,280,000	-	2,280,000	228,000		2,052,000	1,600,560	451,440
Signal Provisions (Traffic And Pedestrian Signals)											
9	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2024	1,075,000	-	1,075,000	53,750		1,021,250	796,575	224,675
10	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2025	425,000	-	425,000	21,250		403,750	314,925	88,825
11	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2026	425,000	-	425,000	21,250		403,750	314,925	88,825
12	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2027	425,000	-	425,000	21,250		403,750	314,925	88,825

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
13	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2028	425,000	-	425,000	21,250		403,750	314,925	88,825
14	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2029	425,000	-	425,000	21,250		403,750	314,925	88,825
15	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2030	425,000	-	425,000	21,250		403,750	314,925	88,825
16	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2031	425,000	-	425,000	21,250		403,750	314,925	88,825
17	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2032	425,000	-	425,000	21,250		403,750	314,925	88,825
18	RD-TS-772	New Traffic Signal/Intersection Pedestrian Signal	2033	425,000	-	425,000	21,250		403,750	314,925	88,825
19		New Traffic Signal/Intersection Pedestrian Signal	2034-2051	7,650,000	-	7,650,000	382,500		7,267,500	5,668,650	1,598,850
Traffic Management Provisions											
20	RD-TS-287	Traffic Signals - Minor Improvements/ Modifications	2025	120,000	-	120,000	60,000		60,000	46,800	13,200
21	RD-TS-287	Traffic Signals - Minor Improvements/ Modifications	2026	120,000	-	120,000	60,000		60,000	46,800	13,200
22	RD-TS-287	Traffic Signals - Minor Improvements/ Modifications	2027	120,000	-	120,000	60,000		60,000	46,800	13,200
23	RD-TS-287	Traffic Signals - Minor Improvements/ Modifications	2028	120,000	-	120,000	60,000		60,000	46,800	13,200
24	RD-TS-287	Traffic Signals - Minor Improvements/ Modifications	2029	120,000	-	120,000	60,000		60,000	46,800	13,200
25	RD-TS-287	Traffic Signals - Minor Improvements/ Modifications	2030	120,000	-	120,000	60,000		60,000	46,800	13,200
26	RD-TS-287	Traffic Signals - Minor Improvements/ Modifications	2031	120,000	-	120,000	60,000		60,000	46,800	13,200
27	RD-TS-287	Traffic Signals - Minor Improvements/ Modifications	2032	120,000	-	120,000	60,000		60,000	46,800	13,200

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
28	RD-TS-287	Traffic Signals - Minor Improvements/ Modifications	2033	120,000	-	120,000	60,000		60,000	46,800	13,200
29		Traffic Signals - Minor Improvements/ Modifications	2034-2051	2,160,000	-	2,160,000	1,080,000		1,080,000	842,400	237,600
Transit Priority Measures											
30		Transit Signal Priority	2025	675,000	-	675,000	337,500		337,500	263,250	74,250
31		Transit Signal Priority	2026	675,000	-	675,000	337,500		337,500	263,250	74,250
32		Transit Signal Priority	2027	675,000	-	675,000	337,500		337,500	263,250	74,250
33		Transit Signal Priority	2028	675,000	-	675,000	337,500		337,500	263,250	74,250
Other Provisions											
34	RD-RL-1596	Digital Ortho Imagery	2025	36,000	-	36,000	18,000		18,000	14,040	3,960
35	RD-RL-1596	Digital Ortho Imagery	2027	36,000	-	36,000	18,000		18,000	14,040	3,960
36	RD-RL-1596	Digital Ortho Imagery	2029	36,000	-	36,000	18,000		18,000	14,040	3,960
37	RD-RL-1596	Digital Ortho Imagery	2031	36,000	-	36,000	18,000		18,000	14,040	3,960
38	RD-RL-1596	Digital Ortho Imagery	2033	36,000	-	36,000	18,000		18,000	14,040	3,960
39		Digital Ortho Imagery	2034-2051	324,000	-	324,000	162,000		162,000	126,360	35,640
40	RD-RA-199	Miscellaneous Land	2024	20,000	-	20,000	10,000		10,000	7,800	2,200
41	RD-RA-199	Miscellaneous Land	2025	20,000	-	20,000	10,000		10,000	7,800	2,200
42	RD-RA-199	Miscellaneous Land	2026	20,000	-	20,000	10,000		10,000	7,800	2,200
43	RD-RA-199	Miscellaneous Land	2027	20,000	-	20,000	10,000		10,000	7,800	2,200
44	RD-RA-199	Miscellaneous Land	2028	20,000	-	20,000	10,000		10,000	7,800	2,200
45	RD-RA-199	Miscellaneous Land	2029	20,000	-	20,000	10,000		10,000	7,800	2,200
46	RD-RA-199	Miscellaneous Land	2030	20,000	-	20,000	10,000		10,000	7,800	2,200
47	RD-RA-199	Miscellaneous Land	2031	20,000	-	20,000	10,000		10,000	7,800	2,200
48	RD-RA-199	Miscellaneous Land	2032	20,000	-	20,000	10,000		10,000	7,800	2,200
49	RD-RA-199	Miscellaneous Land	2033	20,000	-	20,000	10,000		10,000	7,800	2,200
50		Miscellaneous Land	2034-2051	360,000	-	360,000	180,000		180,000	140,400	39,600
51	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2024	1,608,122	-	1,608,122	1,213,595		394,527	307,731	86,796
52	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2025	413,684	-	413,684	312,193		101,491	79,163	22,328

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
53	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2027	60,000	-	60,000	45,280		14,720	11,482	3,238
54	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2029	1,170,000	-	1,170,000	882,959		287,041	223,892	63,149
55	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2031	3,855,600	-	3,855,600	2,909,691		945,909	737,809	208,100
56	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2032	1,635,000	-	1,635,000	1,233,879		401,121	312,874	88,247
57	FB-BD-1727	Burlington Operations Centre Campus - Revitalization	2033	2,734,000	-	2,734,000	2,063,257		670,743	523,180	147,563
Integrated Mobility Plan Projects - Active Transportation											
58		Plains Road from York Boulevard to Daryl Drive	2029	6,664,500	-	6,664,500	666,450		5,998,050	4,678,479	1,319,571
59		Plains Road from Daryl Drive to Shadeland Avenue	2025	7,668,000	-	7,668,000	766,800		6,901,200	5,382,936	1,518,264
60		Plains Road from Shadeland Avenue to King Road	2034-2051	5,110,000	-	5,110,000	511,000		4,599,000	3,587,220	1,011,780
61		Plains Road from King Road to QEW N/B Off Ramp / Plains Road E	2034-2051	3,630,000	-	3,630,000	363,000		3,267,000	2,548,260	718,740
62		Fairview Street from QEW N/B Off Ramp / Plains Road E to Brant Street	2034-2051	5,005,000	-	5,005,000	500,500		4,504,500	3,513,510	990,990
63		Fairview Street from Brant Street to Drury Lane	2034-2051	3,932,500	-	3,932,500	393,250		3,539,250	2,760,615	778,635
64		Fairview Street from Drury Lane to Guelph Line	2034-2051	2,646,250	-	2,646,250	264,625		2,381,625	1,857,668	523,958
65		Fairview Street from Guelph Line to Walkers Line	2034-2051	7,573,750	-	7,573,750	757,375		6,816,375	5,316,773	1,499,603
66		Fairview Street from Walkers Line to Appleby Line	2026	7,350,000	-	7,350,000	735,000		6,615,000	5,159,700	1,455,300
67		Fairview Street from Appleby Line to Road End	2034-2051	3,850,000	-	3,850,000	385,000		3,465,000	2,702,700	762,300

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
68		James Street from Brant Street to Martha Street	2029	1,000,000	-	1,000,000	100,000		900,000	702,000	198,000
69		New Street from Martha Street to Guelph Line	2034-2051	379,350	-	379,350	37,935		341,415	266,304	75,111
70		New Street from Guelph Line to Walkers Line	2034-2051	7,438,175	-	7,438,175	743,818		6,694,358	5,221,599	1,472,759
71		New Street from Walkers Line to Appleby Line	2034-2051	3,642,500	-	3,642,500	364,250		3,278,250	2,557,035	721,215
72		New Street from Appleby Line to Burloak Drive	2034-2051	3,455,000	-	3,455,000	345,500		3,109,500	2,425,410	684,090
73		Lakeshore Road from 825 m south of North Shore Boulevard E to North Shore Boulevard E	2034-2051	2,062,500	-	2,062,500	206,250		1,856,250	1,447,875	408,375
74		North Shore Boulevard E from King Road to QEW N/B Off-Ramp	2034-2051	1,292,500	-	1,292,500	129,250		1,163,250	907,335	255,915
75		North Shore Boulevard E from QEW N/B Off-Ramp to Maple Avenue / Lakeshore Road	2034-2051	1,827,000	-	1,827,000	182,700		1,644,300	1,282,554	361,746
76		Lakeshore Road from Maple Avenue / Lakeshore Road to Brant Street	2034-2051	203,725	-	203,725	20,373		183,353	143,015	40,338
77		Lakeshore Road from Brant Street to Martha Street	2027	580,781	-	580,781	58,078		522,703	407,708	114,995
78		Lakeshore Road from Martha Street to Guelph Line	2027	1,250,000	-	1,250,000	125,000		1,125,000	877,500	247,500
79		Lakeshore Road from Appleby Line to Burloak Drive	2026	687,500	-	687,500	68,750		618,750	482,625	136,125
80		Harvester Road from Appleby Line to Burloak Drive	2034-2051	3,763,550	-	3,763,550	376,355		3,387,195	2,642,012	745,183
81		Upper Middle Road from Havendale Boulevard to Brant Street	2034-2051	1,297,500	-	1,297,500	129,750		1,167,750	910,845	256,905
82		Upper Middle Road from Brant Street to Guelph Line	2026-2029	4,728,325	-	4,728,325	472,833		4,255,493	3,319,284	936,208

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
83		Waterdown Road from Mountain Brown Road to Highway 403 Eastbound Off-Ramp	2034-2051	3,392,500	-	3,392,500	339,250		3,053,250	2,381,535	671,715
84		Waterdown Road from Highway 403 Eastbound Off-Ramp to Plains Road	2034-2051	2,646,250	-	2,646,250	264,625		2,381,625	1,857,668	523,958
85		King Road from Plains Road to Northshore Road	2034-2051	5,566,250	-	5,566,250	556,625		5,009,625	3,907,508	1,102,118
86		Maple Avenue from Fairview Street to Lakeshore Road	2034-2051	5,896,250	-	5,896,250	589,625		5,306,625	4,139,168	1,167,458
87		Brant Street from Fairview Street to Lakeshore Road	2034-2051	5,822,875	-	5,822,875	582,288		5,240,588	4,087,658	1,152,929
88		Guelph Line from Fairview Street to New Street	2034-2051	2,587,925	-	2,587,925	258,793		2,329,133	1,816,723	512,409
89		Guelph Line from New Street to Lakeshore Road	2034-2051	606,825	-	606,825	60,683		546,143	425,991	120,151
90		Walkers Line from Highway 407 to Dundas Street	2034-2051	2,851,875	-	2,851,875	285,188		2,566,688	2,002,016	564,671
91		Walkers Line from Dundas Street to Upper Middle Road	2027	4,420,166	-	4,420,166	442,017		3,978,150	3,102,957	875,193
92		Walkers Line from Upper Middle Road to Mainway	2027	1,722,967	-	1,722,967	172,297		1,550,670	1,209,523	341,147
93		Walkers Line from Mainway to Harvester Road	2025-2028	1,828,894	-	1,828,894	182,889		1,646,005	1,283,884	362,121
94		Walkers Line from Harvester Road to Fairview Street	2025	993,443	-	993,443	99,344		894,099	697,397	196,702
95		Walkers Line from Fairview Street to New Street	2025	1,789,900	-	1,789,900	178,990		1,610,910	1,256,510	354,400
96		Walkers Line from New Street to Lakeshore Road	2025	767,600	-	767,600	76,760		690,840	538,855	151,985
97		Appleby Line from Fairview Street to New Street	2027	2,330,000	-	2,330,000	233,000		2,097,000	1,635,660	461,340

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
98		Appleby Line from New Street to Lakeshore Road	2027	1,384,000	-	1,384,000	138,400		1,245,600	971,568	274,032
99		Burloak Drive from Harvester Road to New Street	2034-2051	1,352,700	-	1,352,700	135,270		1,217,430	949,595	267,835
100		Palladium Way from Dundas Street to Walkers Line	2034-2051	1,247,500	-	1,247,500	124,750		1,122,750	875,745	247,005
101		Palladium Way from Walkers Line to Appleby Line	2034-2051	3,617,500	-	3,617,500	361,750		3,255,750	2,539,485	716,265
102		Mainway from Guelph Line to Walkers Line	2026	2,966,350	-	2,966,350	296,635		2,669,715	2,082,378	587,337
103		Mainway from Walkers Line to Appleby Line	2028	3,045,000	-	3,045,000	304,500		2,740,500	2,137,590	602,910
104		Mainway from Appleby Line to Burloak Drive	2028	4,420,000	-	4,420,000	442,000		3,978,000	3,102,840	875,160
105		North Service Road from Kerns Road to Brant Street	2032	1,586,475	-	1,586,475	158,648		1,427,828	1,113,705	314,122
106		North Service Road from Brant Street to Industrial Street	2032	1,363,125	-	1,363,125	136,313		1,226,813	956,914	269,899
107		South Service Road from Harvester Road to Century Drive	2034-2051	3,250,000	-	3,250,000	325,000		2,925,000	2,281,500	643,500
108		Harvester Road from Guelph Line to Walkers Line	2034-2051	615,000	-	615,000	61,500		553,500	431,730	121,770
109		Harvester Road from Walkers Line to Appleby Line	2034-2051	1,302,500	-	1,302,500	130,250		1,172,250	914,355	257,895
110		Maple Avenue from Plains Road E to Fairview Street	2034-2051	777,500	-	777,500	77,750		699,750	545,805	153,945
111		Sutton Drive from Mainway to North Service Road	2030	1,026,300	-	1,026,300	102,630		923,670	720,463	203,207
112		Howard Road from Lemonville Road to Plains Road	2034-2051	1,013,200	-	1,013,200	101,320		911,880	711,266	200,614
113		Gallagher Road from Road End to Plains Road	2034-2051	1,139,850	-	1,139,850	113,985		1,025,865	800,175	225,690
114		Shadeland Avenue from Plains Road to Townsend Avenue	2034-2051	9,900	-	9,900	990		8,910	6,950	1,960

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
115		Townsend Avenue from Stephenson Drive to Eagle Drive	2034-2051	43,725	-	43,725	4,373		39,353	30,695	8,658
116		Surrey Lane / Warwick Drive from King Road to Francis Road	2034-2051	18,150	-	18,150	1,815		16,335	12,741	3,594
117		Greenwood Drive from King Road to Francis Road	2030	230,850	-	230,850	23,085		207,765	162,057	45,708
118		Maple Crossing Boulevard from Maple Avenue to Multi-Use Trail	2034-2051	12,375	-	12,375	1,238		11,138	8,687	2,450
119		Caroline Street from Multi-Use Trail to Brant Street	2034-2051	267,325	-	267,325	26,733		240,593	187,662	52,930
120		Caroline Street from Brant Street to Drury Lane	2034-2051	343,850	-	343,850	34,385		309,465	241,383	68,082
121		Thorpe Road / Stephenson Drive from Maple Avenue to Grahams Lane	2034-2051	26,400	-	26,400	2,640		23,760	18,533	5,227
122		Grahams Lane from Stephenson Drive to Brant Street	2034-2051	886,550	-	886,550	88,655		797,895	622,358	175,537
123		Prospect Street from Brant Street to Guelph Line	2034-2051	2,200,000	-	2,200,000	220,000		1,980,000	1,544,400	435,600
124		Prospect Street from Guelph Line to Cumberland Avenue	2034-2051	3,741,250	-	3,741,250	374,125		3,367,125	2,626,358	740,768
125		Woodward Avenue / Rexway Drive from Guelph Line to Walkers Line	2034-2051	72,600	-	72,600	7,260		65,340	50,965	14,375
126		Headon Road from Multi-Use Trail to Jordan Avenue	2034-2051	12,375	-	12,375	1,238		11,138	8,687	2,450
127		Jordan Avenue from Headon Road to Walkers Line	2034-2051	20,625	-	20,625	2,063		18,563	14,479	4,084
128		Millcroft Park Drive from Walkers Line to Dundas Street	2034-2051	102,300	-	102,300	10,230		92,070	71,815	20,255
129		William O'Connell Boulevard from Millcroft Park Drive to Upper Middle Road	2034-2051	452,350	-	452,350	45,235		407,115	317,550	89,565

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
130		Leighland Road from Brant Street to Truman Street	2034-2051	886,550	-	886,550	88,655		797,895	622,358	175,537
131		Mountainside Drive from Multi-Use Trail to Guelph Line	2030	846,325	-	846,325	84,633		761,693	594,120	167,572
132		Wedgewood Drive from Pinedale Avenue to New Street	2034-2051	18,150	-	18,150	1,815		16,335	12,741	3,594
133		Rossmore Boulevard from New Street to Lakeshore Road	2034-2051	32,175	-	32,175	3,218		28,958	22,587	6,371
134		Cumberland Avenue from Fairview Street to Prospect Street	2030	399,150	-	399,150	39,915		359,235	280,203	79,032
135		Ontario Street from Maple Avenue to Multi-Use Trail	2034-2051	562,500	-	562,500	56,250		506,250	394,875	111,375
136		Elgin Street from Maple Avenue to Brant Street	2034-2051	713,900	-	713,900	71,390		642,510	501,158	141,352
137		Locust Street from Caroline Street to Lakeshore Road	2034-2051	516,500	-	516,500	51,650		464,850	362,583	102,267
138		John Street from Caroline Street to Lakeshore Road	2029-2030	625,000	-	625,000	62,500		562,500	438,750	123,750
139		Elizabeth Street from Caroline Street to Lakeshore Road	2032	18,150	-	18,150	1,815		16,335	12,741	3,594
140		Martha Street from Caroline Street to Lakeshore Road	2029	893,150	-	893,150	89,315		803,835	626,991	176,844
141		Cedar Springs Road from Dundas Street to No. 1 Side Road	2029	1,396,500	-	1,396,500	139,650		1,256,850	980,343	276,507
142		Cedar Springs Road from No. 1 Side Road to No. 2 Side Road	2029	1,379,875	-	1,379,875	137,988		1,241,888	968,672	273,215
143		Cedar Springs Road from No. 2 Side Road to Britannia Road	2026	4,134,375	-	4,134,375	413,438		3,720,938	2,902,331	818,606
144		Britannia Road from Milburough Line to Cedar Springs Road	2034-2051	118,750	-	118,750	11,875		106,875	83,363	23,513

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
145		Britannia Road from Cedar Springs Road to Guelph Line	2034-2051	3,615,000	-	3,615,000	361,500		3,253,500	2,537,730	715,770
146		Britannia Road from Guelph Line to Walkers Line	2034-2051	1,330,000	-	1,330,000	133,000		1,197,000	933,660	263,340
147		Britannia Road from Walkers Line to Appleby Line	2034-2051	1,520,000	-	1,520,000	152,000		1,368,000	1,067,040	300,960
148		Britannia Road from Appleby Line to Bell School Line	2034-2051	1,425,000	-	1,425,000	142,500		1,282,500	1,000,350	282,150
149		Walkers Line from No. 1 Side Road to No. 2 Side Road	2034-2051	1,947,500	-	1,947,500	194,750		1,752,750	1,367,145	385,605
150		Walkers Line from No. 2 Side Road to Britannia Road	2034-2051	3,040,000	-	3,040,000	304,000		2,736,000	2,134,080	601,920
151		Walkers Line from Britannia Road to Derry Road	2034-2051	2,873,750	-	2,873,750	287,375		2,586,375	2,017,373	569,003
152		Bell School Line from Britannia Road to Derry Road	2034-2051	2,945,000	-	2,945,000	294,500		2,650,500	2,067,390	583,110
153		Snake Road from Old York Road to Thomson Drive / Main Street S (Waterdown)	2026	873,600	-	873,600	87,360		786,240	613,267	172,973
154		AT overpass/underpass of QEW (@ Maple Park) from Greenwood Drive to Maple Avenue	2034-2051	19,000,000	-	19,000,000	1,900,000		17,100,000	13,338,000	3,762,000
155		AT overpass/underpass of QEW/403 (east of Brant Street) from Truman Street to Industrial Street	2034-2051	26,100,000	-	26,100,000	2,610,000		23,490,000	18,322,200	5,167,800
156		AT overpass/underpass of QEW/403 (east of Appleby Line) from Century Drive to Sutton Drive	2034-2051	18,800,000	-	18,800,000	1,880,000		16,920,000	13,197,600	3,722,400
Integrated Mobility Plan Projects - Active Transportation (Standalone Pedestrian)											
157		Blairholm Avenue from Brant Street to Deyncourt Drive/ Gary Crescent	2034-2051	750,000	-	750,000	75,000		675,000	526,500	148,500

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
158		Cavendish Drive from Upper Middle Road to Dawlish Road	2034-2051	725,000	-	725,000	72,500		652,500	508,950	143,550
159		Cavendish Drive from ~90m north of Upper Middle Road to Upper Middle Road	2034-2051	225,000	-	225,000	22,500		202,500	157,950	44,550
160		Corporate Drive from ~145m east of Ironstone Drive to Appleby Line	2034-2051	687,500	-	687,500	68,750		618,750	482,625	136,125
161		Corporate Drive from Appleby Line to ~50m east of Creek Way (end)	2034-2051	1,700,000	-	1,700,000	170,000		1,530,000	1,193,400	336,600
162		Coventry Way from ~45m west of Alder Drive to Guelph Line	2034-2051	437,500	-	437,500	43,750		393,750	307,125	86,625
163		Daryl Drive from Plains Road West to 25m north of Cullum Court	2034-2051	450,000	-	450,000	45,000		405,000	315,900	89,100
164		Dawlish Road from Brant Street to Cavendish Drive	2034-2051	375,000	-	375,000	37,500		337,500	263,250	74,250
165		Driftwood Drive from Guelph Line to Autumn Hill Crescent	2034-2051	275,000	-	275,000	27,500		247,500	193,050	54,450
166		Hampton Heath Road from Lakeshore Road to ~25m north of Stratton Road	2034-2051	400,000	-	400,000	40,000		360,000	280,800	79,200
167		Headon Street from ~40m south of Upper Middle Road to ~30m south of Columbia Crescent	2034-2051	725,000	-	725,000	72,500		652,500	508,950	143,550
168		Heron Way from Appleby Line to Upper Middle Road	2034-2051	775,000	-	775,000	77,500		697,500	544,050	153,450
169		Heron Way from Upper Middle Road to Ironstone Drive	2034-2051	525,000	-	525,000	52,500		472,500	368,550	103,950
170		Imperial Way from Upper Middle Road to Ironstone Drive	2034-2051	562,500	-	562,500	56,250		506,250	394,875	111,375
171		Inverary Road from Fairview Street to ~80m south of Fairview Street	2034-2051	200,000	-	200,000	20,000		180,000	140,400	39,600
172	RD-RC-2026	Ironstone Drive from Heron Way to Appleby Line	2030	500,000	-	500,000	50,000		450,000	351,000	99,000

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
173		Ironstone Drive from Appleby Line to Imperial Way	2034-2051	500,000	-	500,000	50,000		450,000	351,000	99,000
174		Kenwood Avenue from Lakeshore Road to ~25m north of Banting Court	2034-2051	437,500	-	437,500	43,750		393,750	307,125	86,625
175		Kerns Road from Four Seasons Drive / Winterberry Drive to ~75m south of Four Seasons Drive / Winterberry Drive	2034-2051	187,500	-	187,500	18,750		168,750	131,625	37,125
176		King Road from Plains Road East to ~70m north of Plains Road East	2034-2051	175,000	-	175,000	17,500		157,500	122,850	34,650
177		Leighland Road from Brant Street to ~20m west of Ryckman Common	2034-2051	225,000	-	225,000	22,500		202,500	157,950	44,550
178		Longmoor Drive from New Street to ~15m south of Stephanie Street	2034-2051	412,500	-	412,500	41,250		371,250	289,575	81,675
179	RD-RL-2021	Mount Forest Drive from Brant Street to ~55m east of Mountain Side Drive	2029	575,000	-	575,000	57,500		517,500	403,650	113,850
180		Mountain Grove Avenue from Guelph Line to Ireland Drive	2034-2051	250,000	-	250,000	25,000		225,000	175,500	49,500
181		Pinedale Ave from Appleby Line to Timber Lane	2034-2051	675,000	-	675,000	67,500		607,500	473,850	133,650
182	RD-RA-2122	Plains Road East from ~50m east of Helena Street to Brant Street	2028	812,500	-	812,500	81,250		731,250	570,375	160,875
183		Plains Road East from Brant Street to Brenda Crescent	2034-2051	2,475,000	-	2,475,000	247,500		2,227,500	1,737,450	490,050
184	RD-RR-1468	Queensway Drive from ~25m east of Reimer Common to Guelph Line	2027	1,250,000	-	1,250,000	125,000		1,125,000	877,500	247,500
185		Silvan Forest Drive from Mainway to ~80m north of Mainway	2034-2051	200,000	-	200,000	20,000		180,000	140,400	39,600
186		Sutton Drive from Dundas Street to ~120m south of Dundas Street	2034-2051	300,000	-	300,000	30,000		270,000	210,600	59,400
187		Sutton Drive from Upper Middle Road to ~120m north of Upper Middle Road	2034-2051	300,000	-	300,000	30,000		270,000	210,600	59,400

Prj. No.	City's Prj. No.	Increased Service Needs Attributable to Anticipated Development 2024-2051	Timing (year)	Gross Capital Cost Estimate (2024$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 78%	Non-Residential Share 22%
188		Taywood Drive from Boros Road / Turnberry Road to Appleby Line	2034-2051	375,000	-	375,000	37,500		337,500	263,250	74,250
189		Thomas Alton Boulevard from ~35m west of Columbus Drive to Appleby Line	2034-2051	787,500	-	787,500	78,750		708,750	552,825	155,925
190		Thomas Alton Boulevard from Tim Dobbie Drive to ~150 m east of Tim Dobbie Drive	2034-2051	375,000	-	375,000	37,500		337,500	263,250	74,250
191		Tim Dobbie Drive from Thomas Alton Boulevard to ~35m south of Carrick Street	2034-2051	250,000	-	250,000	25,000		225,000	175,500	49,500
192		Timber Lane from New Street to Pinedale Avenue	2034-2051	700,000	-	700,000	70,000		630,000	491,400	138,600
193		Woodview Road from End to Fairview Street	2034-2051	287,500	-	287,500	28,750		258,750	201,825	56,925
194		Woodview Road from Fairview Street to ~80m south of Fairview Road	2034-2051	200,000	-	200,000	20,000		180,000	140,400	39,600
Integrated Mobility Plan Projects – New Highways											
195		Cumberland Avenue Extension from Mainway to Fairview Street	2034-2051	147,600,000	-	147,600,000	-		147,600,000	115,128,000	32,472,000
196		South Service Road Extension from Waterdown Road to King Road	2034-2051	30,600,000	-	30,600,000	-		30,600,000	23,868,000	6,732,000
197		New Collector Road (east of Brant Street) from Fairview Street to Plains Road	2034-2051	38,300,000	-	38,300,000	-		38,300,000	29,874,000	8,426,000
198		New Collector Road (east of Appleby Line) from Fairview Street to Harvester Road	2034-2051	34,200,000	-	34,200,000	-		34,200,000	26,676,000	7,524,000
		Total		**604,647,558**	**-**	**604,647,558**	**53,348,819**	**5,363,833**	**545,934,906**	**425,829,226**	**120,105,679**

8.0 Conclusions

The total capital costs (2024$) for the Services Related to a Highway programs is **$604.6 million**. The non-growth related share (BTE) of the cost is **$53.3 million**. There is no PPB reduction as all Services Related to a Highway capital projects are scheduled for implementation by the 2051 DC horizon year. Overall, the growth-related DC recoverable cost for the Services Related to a Highway is **$545.9 million**.

The analysis presented in this report is used in calculating the development charge for Services Related to a Highway, as contained in the Watson & Associates DC Background Study. The cost estimates and findings will serve as an input to the update to the 2024 Development Charges By-law for the City of Burlington as required by the Development Charges Act.

Appendix D
Technical Appendix for Transit Services

DILLON CONSULTING

City of Burlington

2024-2034 Development Charges Background Study

Appendix – Transit

March 2024 – 23-6395

Table of Contents

1.0 Introduction 1

2.0 Growth Forecasts 3

2.1 Population Growth 3

3.0 Reconciling Data with the Previous Transit DC Study 5

4.0 Conventional Transit 6

4.1 Existing Local Conventional Transit 6
4.2 Mode Share 8
4.2.1 Current Mode Share 8
4.2.2 2051 Mode Share Target 8
4.3 Ridership Forecast 9
4.3.1 Ridership Projections 9
4.3.2 Annual Ridership and Boardings 10
4.4 Vehicle Requirements 12
4.4.1 Peer Review 13

5.0 Specialized Transit 16

5.1 Existing Specialized Transit 16
5.2 Ridership Forecast 18
5.3 Vehicle Requirements 22

6.0 Auxiliary Transit Vehicles 24

7.0 Facilities 26

8.0 Capital Summary 28

9.0 Apportioning Benefit – Vehicles 30

9.1 In-Period Benefit to Existing and Growth 30

9.1.1 Conventional Transit Vehicles 30
9.1.2 Specialized Transit Vehicles 35
9.2 Post-Period Benefit 37
9.2.1 Conventional Transit 37
9.2.2 Specialized Transit 41

10.0 **Apportioning Benefit – Other Capital Items** **42**

10.1 Auxiliary Vehicles 42
10.2 Facilities 42

11.0 **Summary of Key Values** **45**

1.0 **Conventional Transit Ridership Forecast** **2**

1.1 Ridership Projections 3
1.1.1 Annual Internal Boardings 6
1.1.2 Annual External Boardings 9

1.0 Introduction

The City of Burlington (the City) has experienced growth of over 12,000 people over the last ten years resulting in a population of approximately 190,000 residents in 2024. The Halton Region Official Plan indicates that the population is expected to grow even more rapidly over the next ten years; to 210,989 residents in 2034. The majority of this growth is expected within the current city bounds through higher density developments. As the population grows, the demand on the transportation system will increase and sustainable solutions must continue to support accessibility for all residents. Transit systems use Development Charges (DCs) as one of the many ways to fund improvements to support growth.

The Development Charges Act, 1997, as amended (DCA) regulates when and how municipalities may collect DCs. Under the 2016 amendment to the DCA, the following reporting requirements need to be outlined in the DC background study related to transit:

- The calculations that were used to prepare the estimate for the planned level of service for transit services;
- An identification of the portion of the total estimated capital costs related to the transit service that would benefit the anticipated development over the ten-year DC period and after the ten-year DC period;
- An identification of the anticipated excess capacity that would exist at the end of the ten-year DC period;
- An assessment of ridership forecasts for all modes of transit services proposed to be funded, categorized by development types and whether the ridership will be from existing or planned development; and
- An assessment of the ridership capacity for all modes of transit services proposed to be funded by the DC.

Under the *More Homes Built Faster Act, 2022* (commonly referred to as Bill 23), further changes were made to the DCA. These changes disallowed the inclusion of studies from the list of capital costs that can be considered when determining a Development Charge. This includes but is not limited to, transit master plans, feasibility studies, and route reviews.

The City of Burlington's current DC By-law was adopted in 2019 and was updated in 2022 to reflect legislative changes to the DCA under the *More Homes Built Faster Act*. The current DC By-law will expire in June 2024 and the City is preparing a new by-law. The purpose of this technical appendix is to identify the capital requirements for conventional and specialized transit, support vehicles, and facilities to support growth. For each of these categories, the benefit of these investments to the existing and growth populations, both in-period and post-period, have been calculated. This will inform the City's 2024 DC Background Study for Transit prepared by Watson & Associates Economists Limited (Watson & Associates).

2.0 Growth Forecasts

2.1 Population Growth

Table 1 presents the population growth anticipated in the City of Burlington. Population data for early-2024, early-2034, 2044 and 2051 were provided by Watson & Associates. The population is assumed to grow linearly between these horizon years.

Note that the DC period for transit extends from January 1, 2024, to December 31, 2033. For the purposes of calculations in this document, the population in early-2024 and early-2034 represent the beginning and end of the DC period respectively. As such the annual ridership reported at the end of 2023 will be used as the 2024 baseline transit ridership and will be projected to the end of 2033 to reflect the expected ridership at the beginning of 2034. The post-period horizon of 10 years (from early-2034 to 2044) was used to calculate the post-period benefit, as it coincides with the 10 year update periods that are undertaken for DCs based on the 10 year defined expiry period under the Development Charges Act.

Table 1: Population Forecasts (2024-2051)

Horizon	In-Period (2024)	In-Period (2034)	Post-Period (2044)	Buildout (2051)
Population	188,372	210,989	240,273	257,334

Residential growth was also broken down by unit type and area by Watson & Associates. For the purposes of the analysis in this study, these numbers were converted to population based on persons per unit figures provided by Watson & Associates. The breakdown of population by unit, horizon, and area is shown in **Table 2**. Note that the totals in **Table 1** and **Table 2** differ slightly due to rounding as housing units were converted to population. This has no impact on the results of the analysis.

Table 2: Breakdown of Population Growth by Area and Housing Type

Horizon	Singles	Multiples	Apartments	Institutional	Total
Existing	**124,517 (66.1%)**	**31,963 (17.0%)**	**28,874 (15.3%)**	**3,018 (1.6%)**	**188,372 (100%)**
Increase in Existing (2024-2034)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	1,655[1]
2024-2034 Growth	3,101 (14.8%)	2,531 (12.1%)	14,956 (71.3%)	376 (1.79%)	20,964 (100%)
2034 Total	Not Applicable	Not Applicable	Not Applicable	Not Applicable	**210,991**
Increase in Existing (2034-2044)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	2,833[1]
2034-2044 Growth	2,735 (10.3%)	4,056 (15.3%)	19,205 (72.6%)	453 (1.7%)	26,449 (100%)
2044 Total	Not Applicable	Not Applicable	Not Applicable	Not Applicable	**240,273**

[1] Increase in population during this period due to an increase in the number of persons per unit in early-2024 dwellings.

3.0 Reconciling Data with the Previous Transit DC Study

The City undertook an update to the Transit DC By-law in 2019 based on the new legislative requirements provided by the 2016 DCA. The 2019 Transit DC Study used a base year of 2016 and a horizon year of 2031. The buildout year used was 2031, based on the population and mode share targets from the Halton Region June 2011 Best Planning Estimates (BPE's) and the Halton Region and City of Burlington Official Plan. The ridership forecasts were based on the annual ridership growth required per year to achieve a 12% internal transit mode share by 2031. **Table 3** presents a summary of the data used in the 2019 Transit DC Study.

Table 3: Summary of Data Used in 2019 Transit DC Study

Statistic	2016	2019	2029	2031
Average Weekday Transit Ridership	1,169	1,720	6,137	7,947
Total Daily Trips (All Modes) – PM Peak Period	54,992	57,252	64,416	66,229
Local Burlington Transit Mode Share	2%	3%	10%	12%

The mode share targets and total daily trips expected have since been updated with the City of Burlington 2020 Official Plan update and the approval of the Integrated Mobility Plan. This appendix focuses on the capital projects required to expand transit to support the population growth between 2024 and 2034. The Development Charge for transit projects identified in the 2019 Transit DC Study which have yet to begin are adjusted to reflect the collected charges in the main body of this report.

4.0 Conventional Transit

4.1 Existing Local Conventional Transit

The current Burlington Transit system map is shown in **Figure 1**. Burlington Transit currently operates 16 conventional transit routes, 15 of which operate locally within the City boundaries, and one route (Route 1) connects passengers to Hamilton.

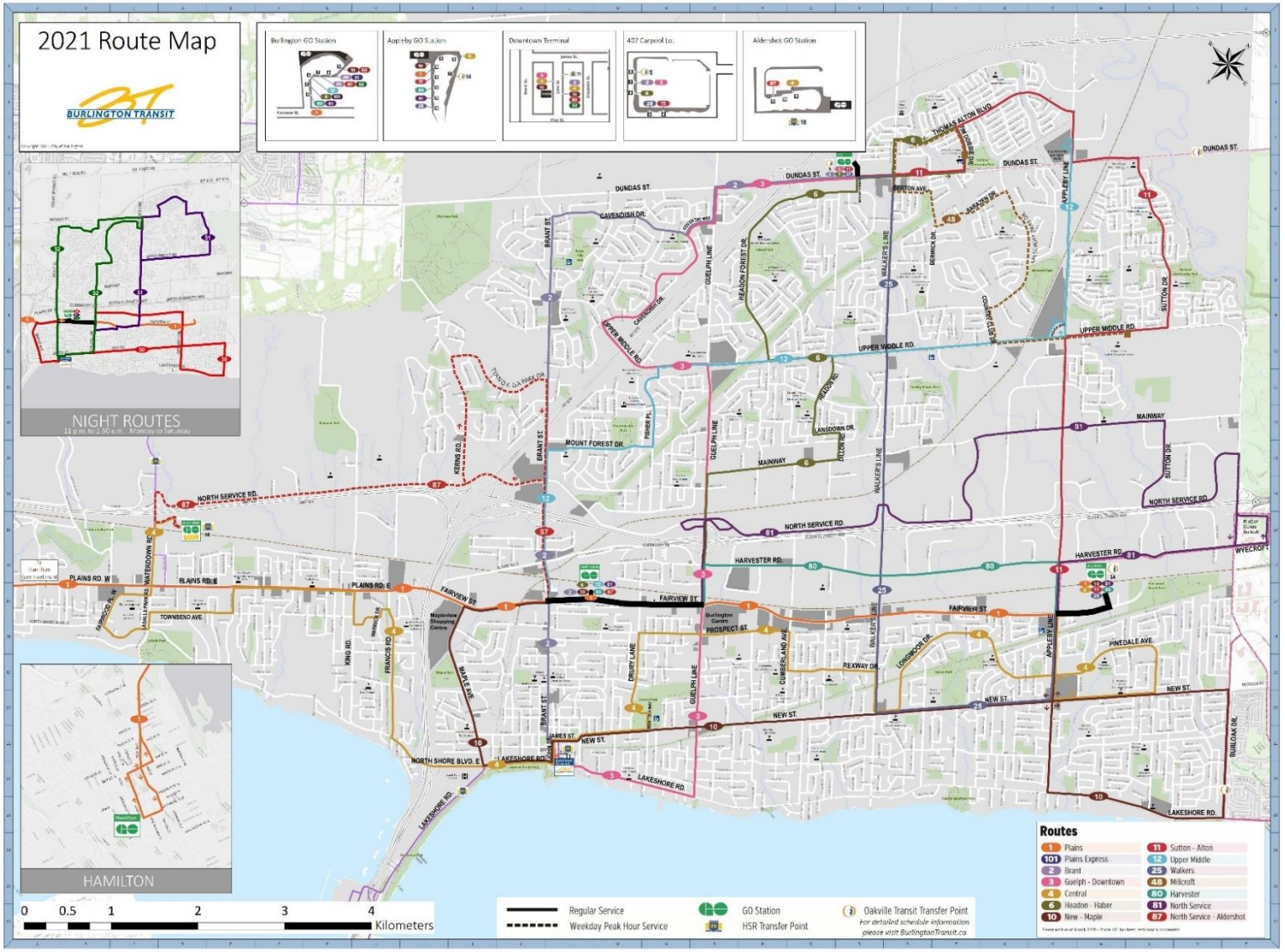
While these routes have changed over time, the ridership over the last five years has remained fairly consistent with the exception of the period during the COVID-19 pandemic (2020 and 2021) where transit ridership was exceptionally low. **Table 4** below presents the ridership and boardings experienced on Burlington Transit over the past five years and the projected ridership for the current year (2024). The annual ridership figures have been compared to the population at the beginning of the following year to align with the early 2024 and early 2034 horizon years.

Table 4: Burlington Transit Ridership

Ridership Category	Early - 2023	Early - 2024
Ridership[2]	2,223,173	2,934,844
Ridership per Capita	11.83	14.86
Boardings[2]	2,707,168	3,543,757

[2] Provided by City Staff

Figure 1: Burlington Transit Route Map



DILLON CONSULTING

4.2 Mode Share

4.2.1 Current Mode Share

The 2016 mode share was calculated using data from the 2016 Transportation Tomorrow Survey (TTS). The TTS is a comprehensive travel survey conducted in the Greater Golden Horseshoe Area every five years by the Transportation Information Steering Committee (TISC). The total person trips internal to Burlington (by all modes) all-day was divided by the total reported internal transit trips to determine the transit mode share. The resulting 1.5% is the same 1.5% reported as the current transit mode share in the Integrated Motility Plan.

Formula – 2016 Mode Share

= Total Person Trips / Transit Trips

Calculation

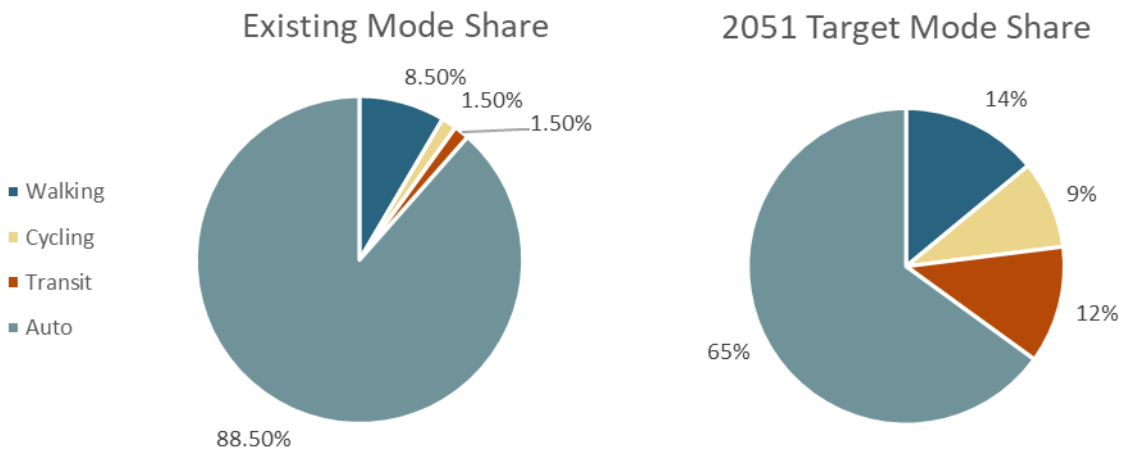
= 255,491 / 3,845

= 1.5%

4.2.2 2051 Mode Share Target

The Burlington Integrated Mobility Plan (IMP) was completed in September 2023 and outlines mode share targets in 2051. There are three targets reported, one for trips within Burlington (internal), one for trips to and from areas outside of the City limits (external) and one which summarizes both internal and external travel. Since Burlington Transit operates mainly within the City limits the internal trip mode share represents the share of trips which would be taken by residents on Burlington Transit. **Figure 2** shows the existing and target mode share for trips internal to Burlington, and the specific portion of the mode share which can be attributed to transit.

Figure 2: 2051 Internal Mode Share Target



4.3 Ridership Forecast

The City of Burlington's five-year transit plan is expected to be completed in 2025. In absence of a future transit network plan, transit ridership forecasts were estimated based on the mode share targets.

4.3.1 Ridership Projections

To estimate future transit ridership, it was assumed that each person would continue to make the same number of total trips per day. This is the same assumption that was used when developing the forecasted number of trips in the Integrated Mobility Plan. As such, the total internal trips for all modes, reported in the 2016 TTS, was divided by the 2016 population to identify the total trips per capita. This figure was then multiplied by the total population in each horizon year, provided by Watson & Associates, to determine the total expected trips in the corresponding year.

Transit ridership forecasts for Burlington Transit must consider increases in both internal and external trips.

The internal transit mode share for each year was calculate by linearly interpolating between the 1.5% 2016 transit mode share from the TTS, and the 12% 2051 target internal transit mode share from the Integrated Mobility Plan. The resulting mode share for each horizon year was multiplied by the calculated total trips in the same year to

estimate the total transit ridership. The calculations used to project the total annual ridership are outlined in **Appendix A**.

While the IMP also identifies external transit mode share target of 20%, this includes both trips made by Burlington Transit as well as other transit providers such as GO Transit which should not be included in this DC. Therefore, another methodology was used to calculate growth in external transit mode share using Burlington Transit.

Burlington Transit provides service to the City of Hamilton on Route 1, which is a significant portion of their ridership. Burlington Transit also provides service to the three GO Stations and to the Highway 407 Park & Ride lot, where many passengers transfer onto a GO Train or GO Bus. The portion of the trip used on Burlington Transit is considered an external trip and does not count towards the internal trip mode share target. To estimate the growth of external trips (in addition to internal trips), ridership growth was projected using assumptions about the growth trends. For trips to Hamilton, this meant applying the same growth rate as internal trips. For trips to GO Bus and GO Rail the growth rates from the 2023 GO Rail Station Access Plan were applied. These calculations are outlined throughout the following sections.

4.3.2 Annual Ridership and Boardings

Transit ridership is defined as a single trip from an origin to destination. Transit boardings differ from ridership in that it reflects the number of times a passenger boarded a bus. This means that passengers who are required to make a transfer to complete their trip will be counted as one rider, but as two boardings. This is important when considering network growth as each customer who is required to transfer will require at least two vehicles to complete their trip, increasing the vehicle requirement. The benefit of implementing transfers is that the route can be simplified, reducing the travel time for most passengers and improve the frequency of routes using the same amount of resources. The improved service resulting from a simplified network attracts new riders to the system.

In order to compare the existing transit network to a simplified network, the same measure of passenger activity must be used. Since new riders will be expected to transfer between routes more often in the future transit network, the ridership projections are converted to boardings using a transfer rate.

4.3.2.1 Annual Internal Boardings

The total 2024 boardings of 3,543,757 (**Table 4**) passengers, includes trips where passengers travel to Hamilton using Burlington Transit or use Burlington Transit to travel to a GO Station to continue a trip outside of the City. These trips would be considered external trips and therefore should not be considered part of the growth to the 12% internal transit mode share identified in **Section 4.3.1**. To estimate the total annual internal boardings, trips to Hamilton and to the GO Stations were removed. The following assumptions were used to determine the annual internal boardings:

- The total number of boardings on Burlington Transit Route 1 which occur at stops within Hamilton represent half of all trips to and from Hamilton, as all passengers boarding Burlington Transit in Hamilton are expected to return using Burlington Transit.
- The total number of transfers reported by PRESTO between Burlington Transit and GO Transit at Appleby GO Station, Aldershot GO Station, Burlington GO Station and the 407 Park & Ride represent 89% of all trips as only 89% of riders use PRESTO cards.

Detailed calculations are outlined in **Appendix A.**

4.3.2.2 Annual External Boardings

As noted above, there are external trips where passengers use Burlington Transit to complete all or a portion of their trip. These types of trips are also expected to grow. To estimate the growth of these types of trips, the following assumptions were used:

- The total boardings per capita for trips to and from Hamilton will grow at the same rate as internal trips;
- The average daily boardings on Route 1 within Hamilton from Fall 2023 was doubled, to account for bidirectional travel;
- The actual number of transfers from 2023 between Burlington Transit and Metrolinx GO Rail services, measured using PRESTO passes, represent the current ridership to GO Rail in early-2024;
- Growth in trips to GO Rail Stations were estimated based on the forecasts identified in the 2023 GO Rail Station Access Plan;

- The linear growth rate from the GO Rail Station Access Plan (between 2019 and 2041) was applied to the current ridership (2024) and used to both extend the projections to 2044 and interpolate the projections to 2034;
- Transfers to GO Rail on the weekend are approximately 28% of the total weekday transfers and the ratio will remain consistent throughout the horizon;
- PRESTO data represents only 89% of the total transfers; and
- Trips on GO Bus from the Highway 407 Park & Ride will grow at a similar rate as the growth at GO Rail stations as these travel patterns are more closely tied to regional growth than growth within Burlington.

Detailed calculations applying these assumptions are included in **Appendix A**.

4.3.2.3 Boardings Projection Summary

Table 5 summarizes the annual boardings projections outlined in the section above and detailed in Appendix A.

Table 5: Conventional Boarding Forecast Summary

Inputs	Early - 2024 (Base Year)	Early - 2034	Early - 2044
Internal Boardings	1,952,114	3,925,175	6,413,423
Route 1 Hamilton Boardings	1,099,368	2,211,165	3,611,348
Boardings for Trips Connecting to GO Rail	288,743	907,251	1,897,681
Boardings for Trips Connecting to GO Bus	203,533	622,884	1,334,607
Total Boardings	**3,543,757**	**7,666,475**	**13,257,059**

4.4 Vehicle Requirements

The previous DC identified that 26 conventional peak buses would be required between 2019 and 2029. It was assumed that the 26 conventional peak buses would be distributed between the spare and in-service vehicles at a 36% spare ratio. These vehicle projections were based on planned service level improvements along each route. As noted above, the City of Burlington's five-year transit plan is expected to be completed in 2025 and until such point there is no Council direction for service level improvements

or routing changes. To determine the number of vehicles and revenue vehicle hours required to support the projected ridership a peer review was completed.

4.4.1 Peer Review

The peer review looked at other Canadian transit agencies who currently have a ridership per capita that is similar to the projected 2034 rides per capita for Burlington. This comparison is made to determine the number of vehicles required to deliver the service required to support the ridership growth projection. **Table 6** below summarizes the results of the peer review and compares these agencies to Burlington on a number of key performance indicators.

Table 6: Peer Review Key Performance Indicators

Peer Review Indicators	Burlington 2024	Burlington 2034	Peer Review Average (London, Regina, Laval & Kelowna)
Boardings per Capita	18.8	34.8	33.9
Peak Vehicles	44	N/A	152
Spare Ratio	37%	25%	N/A
Total Vehicles	70	N/A	N/A
Annual Boardings per Peak Vehicle	80,540	N/A	72,811
Boardings per Revenue Vehicle Hour	17.49[3]	N/A	24.68

Based on these findings, it is expected that a significant growth in vehicles would need to occur to accommodate the ridership forecast. While the amount of service would need to increase to accommodate change in modes, transit systems also tend to be more productive (higher boardings per revenue vehicle hour) in order to achieve the mode share target. Some of this productivity improvement is expected to occur based on the growth in off peak travel, increasing the number of trips which could occur without the need to significantly increase service hours.

This also indicates that Burlington currently operates at a similar level of ridership per peak vehicle as the average peer agency. Burlington Transit strives to improve

[3] Estimated based on 2022 service hours.

passenger comfort by reducing the number of passengers per trip; to conservatively predict the number of vehicles required the current 80,540 boardings per peak vehicle was used. Changes to the service standards which quantify a further reduction in riders per peak vehicle should be considered in the following Development Charge update.

Formula – 2034 Conventional Peak Buses

= Total Boardings 2034 / Boardings per Peak Vehicle

Calculation

= 7,666,475 / 80,540

= 95

Currently Burlington Transit operates 44 conventional buses at peak out of a total of 70 buses, leaving 37% of the vehicles as spares. Burlington Transit anticipates that as the fleet size increases this could be lowered to 25%. Therefore, as a conservative estimate for the number of vehicles required, a 25% spare ratio was used to estimate the total vehicles required in 2034.

Formula – 2034 Total Conventional Vehicle Requirement

= 2034 Conventional Peak Buses / (1- Spare Ratio)

Calculation

= 95 / (1-25%)

= 127

Table 7 below identifies the number of conventional buses in the Burlington Transit fleet in 2024 as well as the number of peak and spare vehicles required in 2034 to provide a level of service which supports the current and future population.

The current cost of each of these vehicles is $1,035,000. It has been assumed that all buses purchased in the future for the local conventional service are forty-foot hybrid buses as per the 2024-2033 budget and 2023 business service plan. These costs include all in-vehicle technologies, bike rack, farebox and other miscellaneous items (e.g. signage).

Table 7: Conventional Vehicle Summary

Existing and Growth Bus Categories	**2024**	**2029** (Previous DC)	**2034**
Conventional Peak Buses	44	59	95
Spare Ratio	37%	37%	25%
Conventional Spare Buses	26	34	32
Conventional Buses Total	70	93	127
Bus Growth in Horizon (2024-2034)	Not Applicable	Not Applicable	57
Total Cost for Bus Growth in Horizon (2024-2034)	Not Applicable	Not Applicable	$58,995,000

5.0 Specialized Transit

5.1 Existing Specialized Transit

The City of Burlington operates a specialized public transportation service called Specialized Transit and provides a door-to-door service with smaller accessible vehicles to customers with disabilities. The service is only available to registered customers. **Table 8** illustrates the operating statistics for Specialized Transit. The annual ridership for each year is reported for the following year as outlined in **Section 4.1**.

Currently, Burlington Transit operates fifteen specialized transit vehicles, eleven of which are regularly scheduled during peak demand periods. The remaining four vehicles are used as spares (rotated into service for the fleet to undergo regular maintenance and allow for repairs). When trips are unable to be accommodated by Burlington Transit vehicles, a third-party taxi service is contracted to provide the trips. This practice was put in place to improve passenger mobility and access in the absence of sufficient resources to meet the demand. This practice is not expected to be a long-term solution as such the vehicle projections assume that passengers will make all trips on Burlington Transit vehicles by the end of the DC horizon.

Table 8: Specialized Transit Operating Statistics

Year	Total Registrants	Trip Denial Rate	Annual Trips by Burlington Transit	Annual Trips per Registrant on Burlington Service	Trips Per Peak Burlington Transit Vehicle	Annual Trips by Third-Party	Annual Trips per Registrant on Third Party Service	Total Trips on Specialized Transit
2022	910	0.5%	38,095	41.86	3,463	27	0.03	38,122
2023	1,018	0.5%	52,114	51.19	4,738	797	0.78	52,911
2024	1,169	0.5%	54,408	46.54	4,946	3,295	2.82	57,703

5.2 Ridership Forecast

Ridership growth on Specialized Transit will grow as a result of three main changes:

- Population growth in the community;
- Aging population; and
- Increase in number of trips per registrant (based on a planned reduction in the trip denial rate).

Population growth will see an increase in the number of Specialized Transit registrants that will request trips on the service. This will increase the vehicle requirements over the 10-year DC period. An aging population (from both the existing and growth population) will also see an increase in the number of Burlington Transit Specialized Transit registrants.

Based on discussion with Burlington Transit, approximately 0.5% of all trip requests are denied (cannot be accommodated with the existing capacity of vehicles). Nearly all specialized transit services experience some level of trip denial due to peak demand and resource availability. While Burlington Transit strives to accommodate all trips, it is expected that a small number of trips will continue to be denied as the service grows. The same 0.5% denial rate is therefore assumed for 2034.

Statistics Canada developed *Population Projections for Ontario's 49 Census Divisions by Age and Sex, 2022-2046*. Burlington falls within the Census division of Halton Region; therefore, the distribution by age cohort was applied to the Halton Region population projections resulting in the estimated distribution of population by age presented in **Table 9** below.

Table 9: Projected Population by Age Cohort in Halton Region

Age Group	2022	2024	2034
0-19	153,385	154,820	178,184
20-34	115,450	129,621	165,574
35-44	83,559	85,267	119,703
45-54	91,348	92,005	98,141
55-64	80,790	82,419	84,808
65-74	55,289	58,683	76,938
75 and older	47,379	51,668	76,407
Total	**627,200**	**654,483**	**799,755**

The table above shows that the existing Halton Region population is aging. Stats Canada notes that approximately 24.1% of the Ontario population in 2017 had a disability.[4] The prevalence of disability rises as we age. **Table 10** shows the portion of the Ontario population who had a disability in 2017 as reported in the Canadian Survey on Disability. Children under 15 are not reported but are considered to have a similar prevalence of disability to those under 24.

Table 10: Prevalence of Disability by Age Ontario

Age Cohort	Percentage of Persons with Disabilities
15-24	13.6%
25-44	15.7%
45-64	26.2%
65-74	36.2%
75 and older	53.5%

With an aging population, there will be a growth in the number of Specialized Transit registrants from the existing population over the 10-year DC period.

To calculate the growth in registrants, the prevalence of disability by each age cohort was multiplied by the number of residents in each corresponding age cohort between

[4] Statistics Canada. Table 13-10-0374-01 Persons with and without disabilities aged 15 years and over, by age group and sex, Canada, provinces and territories

2022 and 2034 and scaled based on the ratio of the projected Halton population to that projected for Burlington exclusively. This provided the potential number of persons with disabilities each year (as illustrated in **Table 11** below).

Table 11: Potential Persons with Disabilities by Age Group in Burlington

Age Group	Prevalence of Disability	2023	2024	2034
0-19	13.6%	6,150	6,060	6,393
20-34	15.1%	5,409	5,615	6,574
35-44	15.7%	3,873	3,853	4,958
45-54	26.2%	7,044	6,938	6,784
55-64	26.2%	6,287	6,215	5,862
65-74	36.2%	6,024	6,114	7,348
75 and older	53.5%	7,783	7,956	10,784
Total Persons with Disabilities	Not Applicable	42,570	42,751	48,703

It should be noted that not all persons with disabilities would be eligible for Specialized Transit. The definition of disability is broad and could include disabilities that would not prevent a resident from using the conventional bus service. Therefore, a ratio of existing 2024 Specialized Transit registrants to potential persons with disabilities in 2024 was calculated and applied to each corresponding year.

Formula - Registrants as a Portion of Population with Disabilities

= 2024 Specialized Transit Registrants / 2024 Potential Persons with Disabilities

Calculation

=1,169/ 42,751

= 0.027

Formula – 2034 Specialized Transit Registrants

= Registrants as a Portion of Population with Disabilities x 2034 Potential Persons with Disabilities

Calculation

= 0.027 x 48,703

= 1,315

The forecasted number of Specialized Transit registrants during the 10-year DC period is illustrated in **Table 12**. To calculate ridership, the number of trips made by each registrant is multiplied by the number of registrants forecasted to determine the ridership. Boardings and ridership are considered synonymous for Specialized Transit as trips are offered door-to-door and passengers do not transfer between buses to complete a trip.

Formula – 2024 Trips per Registrant

= 2024 Specialized Transit Trips / 2024 Registrants

Calculation

= 57,703/1,169

= 49.36

Formula – 2034 Trips by Burlington Transit

= 2024 Trips per Registrant x 2034 Specialized Transit Registrants

Calculation

= 49.36 x 1,315

= 64,909

It was assumed that proportion of trips completed by taxi services steadily decline to zero, by 2034, but that the overall trips per passenger must still be accommodated **Table 12** summarizes the specialized transit forecast.

Table 12: Trip Forecast for Specialized Transit (2023-2034)

Specialized Transit IndicatorsData	2023	2024	2034
Registrants	1,018	1,169	1,315
Trip Denial Rate	0.5%	0.5%	0.5%
Trips By Burlington Transit Vehicles	52,114	54,408	64,909
Trips By Taxi	797	3,295	0
Total Trips	52,911	57,752	64,909
Total Trips Per Registrant	51.98	49.36	49.36
Peak Transit Vehicles	11	11	13 (**Section 5.3**)
Trips Per Peak Burlington Transit Vehicle[5]	4,738	4,946	4,993

5.3 Vehicle Requirements

Burlington Transit has provided the existing fleet quantities for Specialized Transit. The number of transit vehicles required in 2034 has been estimated based on the assumption that each peak vehicle will operate a similar number of trips per day as 2023 and that the spare ratio will remain the same. While taxis are currently used to complete trips this practice is not expected to continue to 2034 and as such all projected trips are expected to be performed by Burlington Transit vehicles.

Formula – 2034 Peak Specialized Transit Vehicles

= 2034 Total Trips / 2024 Trips per Peak Vehicle

Calculation

= 64,909 / 4,946 (**Table 12**)

= 13

The projected vehicle requirements based on the above are illustrated in **Table 21**. This also assumes a growth in the number of spare vehicles to maintain the same spare ratio. The capital costs included reflect only costs which are solely attributed to the publicly-owned fleet of purpose-built Specialized Transit vehicles. The cost per Specialized

[5] Does not include trips operated by taxi services.

Transit is currently $363,000. The total cost reflects installation of communication systems, security cameras, farebox and other on board items.

Table 13: Specialized Transit Vehicle Requirements

Vehicles Requirements	2023	2024	2034
Peak	11	11	13
Spares	4	4	5
Total	15	15	18
Spare Ratio	27%	27%	27%
Vehicle Growth in Horizon (2024-2034)	Not Applicable	Not Applicable	3
Total Cost for Vehicle Growth in Horizon (2024-2034)	Not Applicable	Not Applicable	$1,089,000

6.0 Auxiliary Transit Vehicles

There are types of auxiliary vehicles which are necessary to support transit operations. These include:

- Supervisor Vehicles: Operated by on-street supervisors to support day-to-day operations.
- Support Vehicles: Shuttle vehicles used to transport operators to and from relief points at the start and end of their shift.
- Service Vehicles: Maintenance vehicles used to respond to incidents where on-street repairs are required.

Each of these three types of vehicles support the daily operations of the transit fleet. As the bus fleet increases and the service area expands, the number of supervisor, support and service vehicles will need to increase proportionally. It is assumed that the ratio of each type of vehicle in relation to the peak conventional vehicles will remain consistent between 2024 and 2034. **Table 14** summarizes the auxiliary vehicle requirements below.

Table 14: Auxiliary Vehicle Requirements

Vehicle Requirements	Peak Conventional Transit Vehicles	Supervisor Vehicles	Support Vehicles	Service Vehicles
2024 Vehicles	44	3	1	3
Peak Conventional Transit Vehicles per Auxiliary Vehicle	Not Applicable	15.7	47	15.7
2034 Vehicles	95	7	3	7
Vehicle Growth in Horizon (2024-2034)	Not Applicable	4	2	4
Total Cost for Vehicle Growth in Horizon (2024-2034)	Not Applicable	$196,000	$98,000	$448,000

The cost of each support and supervisor vehicle is estimated at $49,000 and the estimated cost of each service vehicle is $112,000. These costs include all technology required within the vehicle to monitor the fleet, communicate with operations staff and carry the required maintenance equipment. The support vehicles have been included in

the 2024 and 2025 capital budgets and as such are anticipated for procurement in those years. The remaining vehicle types are expected to be required at regular intervals throughout the DC horizon based on a linear growth of ridership between the horizon years.

7.0 Facilities

The expansion vehicles noted in **Sections 4.4.1** and **5.3** will need to be maintained and stored in a new or expanded transit operations facility during the 10-year horizon period. The existing facility is at capacity, with many buses stored outdoors.

The 2024 Financial Needs and Multi-Year Forecast identifies that the existing building at 3332 Harvester Road will be expanded in the coming years to account for the expanding fleet. The expansion is expected to support 33 additional 40-foot equivalent buses.

The first step in determining the required facility size was to determine the operations facility expansion requirements. A total of 57 expansion buses (conventional and specialized transit) and 10 auxiliary vehicles will be required over the 10-year DC period as outlined in **Sections 4.4.1, 5.3** and **6.0**.

Table 15 presents the conversion of each vehicle type to its 40-foot bus equivalent (FFE), rounded to reflect a whole vehicle. Given that the total number of expansion buses is expected to exceed the number which can be accommodated in the planned expansion, and that the existing facility has exceeded its capacity, a new or expanded operations facility will be required to accommodate the additional expansion buses.

Table 15: Growth Bus Forty-foot Equivalences

Bus Type	Bus Length (feet)	Ratio to 40-foot bus	Quantity	Total FFE buses
Expansion Conventional 40-Foot Buses	40	1.0	57	57
Expansion Specialized Vehicles	20	0.625	3	2
Expansion Supervisor Vehicles	15	0.375	4	2
Expansion Service Vehicles	15	0.375	4	2
Expansion Support Vehicles	15	0.375	2	1
Growth	Not Applicable	Not Applicable	**70**	**64**

The total cost of expanding the Burlington Transit Operations facility is $36,920,000[6]. Of this overall cost, $10,786,000 will be provided by the provincial and federal government through the Investing in Canada Infrastructure Program, resulting in a City of Burlington cost of $26,134,000. The facility is expected to be funded across two fiscal years and therefore a portion of the cost is applied to each2024 and 2025 based on the distribution outlined in the 2024 Financial Needs and Multi-Year Forecast.

The expansion facility is not expected to hold all the buses within the 2034 horizon, and a second building will be required. The cost of the second building is not considered in this DC as limited details are known to understand the benefit for the building; however, it should be considered in the next DC update.

[6] Cost includes building expansion and transit portion of property costs (8.4 out of 10.4 acres).

8.0 Capital Summary

A summary ten-year capital plan of projects supporting the growth in Burlington Transit service is noted in **Table 16**. The capital plan has been adjusted to reflect projects that are expected within the DC horizon, changes to base costs and other capital requirements informed by staff from the City of Burlington. The 10-year capital cost represents the cost to the City of Burlington, and as such the gross cost has been reduced to reflect any known funding contributions, cost-sharing commitments and costs which will be incurred after the 10-year Development Charge horizon.

Table 16: Ten Year 2024-2034 Capital Plan

Item	Unit Price (2024)	Quantity (2024-2034)	Gross Cost	Funding Contribution	10-Year Capital Cost (Burlington Transit portion only)
40’ Conventional Buses (including transit signal priority technology)	$1,035,000	57	$58,995,000	$6,140,000	$52,855,000
Specialized Transit Vehicles	$363,000	3	$1,089,000	$637,000	$452,000
Transit Support Vehicles	$49,000	2	$98,000	$0	$98,000
Supervisor Vehicles	$49,000	4	$196,000	$0	$196,000
Service Vehicles	$112,000	4	$448,000	$0	$448,000
Burlington Transit Operations - Expansion	$26,134,000	1	$26,143,000	$10,787,000	$15,347,000
Total	**Not Applicable**	**Not Applicable**	**$86,960,000**	**$17,564,000**	**$69,396,000**

9.0 Apportioning Benefit – Vehicles

This section details how the transit capital program is apportioned between in-period benefit to existing, and in-period and post-period benefit to growth.

9.1 In-Period Benefit to Existing and Growth

The 2016 DCA requires that the increased need for service be reduced by the extent to which a service would benefit existing population. The in-period benefit is therefore further broken down into benefit to existing populations and benefit to growth populations.

9.1.1 Conventional Transit Vehicles

To determine the extent to which new transit capital will benefit the existing population and the growth population, it is first important to understand the propensity of each population group to use transit.

New developments and their corresponding populations have an increased propensity to use transit due to changing views on transit, higher densities of new built form, and increased adoption of transit-oriented design in new developments. Existing populations have a lower propensity to use transit due to the existing auto-oriented built form and challenges in changing established behaviours.

New development that is being planned within Burlington over the next ten years will be denser, on average, than existing development.

Table 17 illustrates the percentage of population from both existing and new growth by unit type. Currently, 66.1% of the existing population live in single-detached dwellings, compared to only 14.8% of the 2024-2034 growth population. This change in built form will impact the propensity to use transit by different portions of the population.

Data was derived from the 2016 Transportation Tomorrow Survey (TTS) to understand how housing choice correlates with the propensity to use transit. The TTS is a comprehensive travel survey conducted in the Greater Golden Horseshoe Area every five years. The purpose of the survey is to provide data that help governments and transportation agencies make transportation investment decisions.

Table 17 illustrates the average 2016 transit mode share of residents in Burlington by housing type (based on 2016 TTS data). The data was used to identify the relative differences in mode share by housing type from TTS.

Table 17: Transit Mode Share by Housing Type in Burlington

Housing Type	Transit Mode Share	Factor Relative to Low-Density
Low-Density (singles and semis)	1.56%	1.00
Medium-Density (multiples)	2.68%	1.72
High-Density (apartments)	4.11%	2.63

These figures identify that, residents who live in high-density developments are more likely to use transit than residents who live in low to medium-density developments.

The TTS data does not include a transit mode share for population associated with institutional housing. Since this type of housing is typically high-density, the transit mode share for high-density development was used for this housing type for the purposes of this analysis.

The "Factor Relative to Low-Density" column in **Table 17** measures the ratio of transit use for residents in higher densities, relative to low-density units. For example, medium-density units use transit 1.72 times more than low-density units (2.68% / 1.56% = 1.72). These factors were used to adjust the expected annual trips per capita for the existing and growth population by housing type.

To calculate the proportion of trips made by the growth and existing population, several steps were taken and are outlined below.

Identify Growth in Boardings Based on Population Growth Only

The first step was to determine the growth in boardings that would occur based on population growth only (assuming no service level improvements would take place). Since new growth will be constructed with a higher density share (**Table 2**), the number of rides per capita for the growth population were adjusted to reflect the higher likelihood of using transit.

The "Factor Relative to Low-Density" for each housing type identified **Table 17** was used to calculate a density adjustment for the existing Burlington population. The portion of the overall population by growth period residing in each housing type (**Table 2**) was multiplied by the associated density adjustment factor. This meant that a factor of 1.0 was applied to the portion of the population residing in low-density units, 1.72 to the portion of the population residing in medium-density units and 2.63 to the portion of the population residing in high-density and institutional units. The resulting sum of these values provides a density factor for each population group (existing residents and growth residents between 2024 and 2034). The density factor was calculated to be 1.40 for the existing population group and 2.28 for the growth population, which represents the impact of density on transit growth, as shown in **Table 18**.

Table 18: Transit Propensity Factor Type Calculation

Housing Type	Factor Relative to Low-Density	Population (2024)	Growth Population (2024-2034)
Singles	1.00	66.1%	14.8%
Multiples	1.72	17.0%	12.1%
Apartments	2.63	15.3%	71.3%
Institutional	2.63	1.6%	1.79%
Transit Propensity Factor (Weighted Average)	**Not Applicable**	**1.40**	**2.28**

The transit propensity factor of 1.40 in the existing population yields a boardings per capita of 18.81, while the transit propensity factor of 2.28 of the growth population yields a boardings per capita of 30.63.

To calculate the adjusted boardings per capita, the following calculation was used:

Formula - Boardings per Capita

= "Factor Relative to Low Density" from Growth Population / "Factor Relative to Low Density" from existing 2024 population x 2024 Boardings per Capita

Calculation

= 2.28 / 1.40 x 18.81

= 30.63

The numbers associated with these steps are summarized in **Table 19**.

Table 19: Calculation of 2034 Conventional Boardings by Population

Area	Population	Factor Relative to Low Density	Boardings Per Capita	Annual Boardings (2034)
2024 Population	188,372	1.40	18.81	3,543,277
Increase in Housing Unit Occupancy 2024-2034	1,655	1.40	18.81	31,131
2024-2034 Growth	20,964	2.28	30.63	642,127
2034 Total	**210,991**	**Not Applicable**	**Not Applicable**	**4,216,535**

Adjust Boardings by Population Group to Reflect 2033 Forecasts

The next step is to adjust the annual boardings in **Table 19** to reflect the full boardings forecast (**Table 5**), assuming service improvements reflected in the capital plan are in place.

To do this, the 2034 projection of total boardings is divided by the 2034 total boardings calculated above (**Table 19**).

Formula - Boardings Growth Factor

= 2034 Boardings Forecast (**Table 5**) / 2034 Boardings from **Table 19** assuming no service improvements in place.

Calculation

= 7,666,475 / 4,216,535

= 1.82

Using this boardings growth factor, the annual boardings in **Table 19** was multiplied by 1.82. This calculation is reflected in **Table 20**.

Table 20: Calculation of 2034 Adjusted Conventional Boardings by Population

Area	Population	Boardings Per Capita (Table 19)	Annual Boardings (Table 19)	Boardings Adjustment Factor	Annual Boardings (Adjusted)
2024 Population	188,372	18.81	3,543,277	1.82	6,442,363
Increase in Housing Unit Occupancy 2024-2034	1,655	18.81	31,131	1.82	56,601
2024-2034 Growth	20,964	30.63	642,127	1.82	1,167,511
2034 Total	**210,991**	**Not Applicable**	**4,216,535**	**1.82**	**7,666,475**

As seen in **Table 20**, the average trips per capita is required to grow by the existing and growth population to achieve the 2034 target for boardings. This suggests that the service improvements will benefit both the existing population and the growth population, with an increased benefit to the growth population based on the transit propensity factor.

Calculate Benefit Apportionment

To calculate the apportionment to growth and existing population, the following formulas were used:

Formula - Boardings by 2024 residents in 2034

= Adjusted Boardings from 2024 Population + Adjusted Boardings from 2024 to 2034 Population Increase

Calculation

= 6,442,363 + 56,601

= 6,498,964

Formula - Benefit to Existing

= (Boardings by 2024 residents in 2034 - Boardings by existing residents in 2024) / (Total Boardings by all residents in 2034 – Total Boardings by all residents in 2024)

Calculation

= (6,498,964 – 3,543,757) / (7,666,475 – 3,543,757)

= 71.68%

Formula - Benefit to Growth

= Boardings by 2024 to 2034 growth residents in 2034 / (Total Boardings by all residents in 2044 – Total Boardings by all residents in 2024)

Calculation

= 1,167,511 / (7,666,475 – 3,543,757)

= 28.32%

Therefore, the benefit to existing and growth for conventional vehicles and associated fareboxes and ITS is as follows:

- 71.68% to benefit to existing
- 28.32% to benefit to growth

9.1.2 Specialized Transit Vehicles

The method used to apportion growth relating to specialized vehicles is different than conventional transit due to the conditional eligibility of this service. Similarly, there are benefits to an existing population and growth. Thus, benefits are allocated to two groups of customers:

1. New registrants of Specialized Transit based on the existing population (attributed to an aging population that will register for the service - as mentioned in **Section 5.2**); and
2. New registrants of Specialized Transit based on growth in population.

Burlington Transit needs to expand their specialized transit fleet to accommodate the increase in these registrants. To calculate the apportionment of benefit, trips were separated into:

1. Growth of Registrants (from an aging population and population growth); and
2. Growth of trips per Registrant (from the shift in trips from taxis to Burlington Transit vehicles).

Growth of Registrants

To determine the number of new registrants that come from the existing population and those that are from the growth population, the impacts of an aging population on the prevalence of disability (and thus the potential to register for Specialized Transit) was calculated.

The population with a disability as illustrated in **Table 11** in each age cohort in 2034 was multiplied by the ratio of 2024 population to the total 2034 population (including growth). This provided the number of registrants from the existing population with a disability in 2034. The net growth between 2024 and 2034 was the number of new existing residents that could potentially have a disability over the period and be eligible for Specialized Transit.

The growth population with a disability was calculated by multiplying the total 2034 population with a disability (**Table 11**) in each age cohort by the ratio of growth population (2024 – 2034) to the 2034 total population. This is illustrated in **Table 21** below.

Table 21: Allocation of New Registrants to Growth and Non-Growth

Population	2024	2034
Population	188,372	210,989
% Existing Population	100.0%	92.3%
% Growth Population	0.0%	7.7%
Population with a disability	42,751	48,703
Growth in Existing Population with a Disability	Not Applicable	2,179
Growth in New Population with a Disability	Not Applicable	3,773
% of new registrants from existing aging population	Not Applicable	36.6%
% of new registrants from population growth	Not Applicable	63.4%

Growth in Trips per Registrant

In addition to this growth, the number of trips per registrant on Burlington Transit vehicles is expected to grow as trips are shifted from the taxi service to Burlington Transit vehicles. A number of these trips are currently being offered by the taxi service and therefore are not considered growth related. The increase in vehicles will provide capacity to accommodate all trips on Burlington Transit vehicles, which will benefit new registrants to the service, both from the existing population aging into the service and from the growth population. As such, all additional trips will have the same potential distribution of existing and growth passengers as outlined in **Table 21** above and therefore the same benefit to growth and existing will apply.

Therefore, the benefit to existing and growth for mobility vehicles and associated ITS. is as follows:

- 36.61% to benefit to existing
- 63.39% to benefit to growth

9.2 Post-Period Benefit

The 2016 DCA requires that no portion of the service intended to benefit anticipated development within the ten-year DC period remain as excess capacity at the end of the ten-year DC period. For the purposes of this DC Study, in-period is identified as the period from early-2024 to early-2034 and the post-period is assumed to be from early-2034 to early-2044.

9.2.1 Conventional Transit

The post-period benefit was calculated using the proportion of annual transit trips that are conducted by the 2034 to 2044 population.

To calculate post-period benefit, the expected number of boardings per population in 2044 was calculated based on population growth and the propensity to use transit as described in **Section 9.1.1.** This calculation is outlined below.

Identify Growth in Boardings Based on Population Growth Only

The transit propensity factor was calculated to be 2.32 for the post-period growth population, based on a weighted average, as shown in **Table 22**.

Table 22: Transit Propensity Factor (Post-Period) Relative to Housing Type Calculation

Housing Type	Factor Relative to Low-Density	Population (2024)	Growth Population (2024-2034)	Post-Period Growth Population (2034-2044)
Singles	1.00	66.1%	14.8%	10.3%
Multiples	1.72	17.0%	12.1%	15.3%
Apartments	2.63	15.3%	71.3%	72.6%
Institutional	2.63	1.6%	1.8%	1.7%
Transit Propensity Factor (Weighted Average)	**Not Applicable**	**1.40**	**2.28**	**2.32**

The transit propensity factor of 1.40 in the existing population yields a boardings per capita of 18.81, while the transit propensity factor of 2.32 of the post-period growth population yields a boardings per capita of 31.17.

To calculate the adjusted boardings per capita, the following calculation was used:

Formula - Boardings per Capita

= "Factor Relative to Low Density" from Post-Period Growth Population / "Factor Relative to Low Density" from existing 2024 population x 2024 Boardings per Capita

Calculation

= 2.32 / 1.40 x 18.81

= 31.17

The numbers associated with these steps are summarized in **Table 23**.

Table 23: Calculation of 2044 Conventional Boardings by Population

Population Group	Population	Factor Relative to Low Density	Boardings Per Capita	Annual Boardings (2044)
2024 Population	188,372	1.40	18.81	3,543,277
Increase in Housing Unit Occupancy 2024-2044	4,488	1.40	18.81	84,419
2024-2034 Growth	20,964	2.28	30.63	642,127
Post-Period 2034-2044 Growth	41,096	2.32	31.17	1,280,962
2044 Total	**232,963**	**Not Applicable**	**Not Applicable**	**5,550,786**

Adjust Boardings by Population Group to Reflect Forecasts

The total boardings to 2044 are expected to increase based on changes to the network within the DC horizon. To account for this, the 2044 boardings are adjusted as outlined in **Section 9.1.1**. The post-period boardings consider only the additional boardings which could be accommodated by the 2034 network.

Formula - Boardings Growth Factor

= 2044 Boardings Forecast (**Table 5**) / 2044 Boardings from **Table** 23 assuming no service improvements in place.

Calculation

= 13,257,058 / 5,550,786

= 2.39

These boardings are summarized in **Table 24**.

Table 24: Calculation of 2044 Adjusted Conventional Boardings by Population

Population Group	Population	Boardings Per Capita (Table 23)	Annual Boardings (Table 23)	Boardings Adjustment Factor	Annual Boardings (Adjusted)
2024 Population	188,372	18.81	3,543,277	2.39	8,462,483
Increase in Housing Unit Occupancy 2024-2044	4,488	18.81	84,419	2.39	201,620
2024-2034 Growth	20,964	30.63	642,127	2.39	1,533,605
Post-Period 2034-2044 Growth	41,096	31.17	1,280,962	2.39	3,059,348
2044 Total	**252,087**	**Not Applicable**	**5,550,786**	**2.39**	**13,257,058**

Based on the table above, the in-period and post-period growth benefit were calculated as follows:

Formula - Proportion of Benefit to Growth to Allocate Post-Period

= Post-Period Growth Population Annual Boardings / (2044 Boardings - 2024 Annual Boardings)

Calculation

= 1,533,605 / (13,257,058 – 3,543,757)

= 31.50%

Formula - Post-Period Benefit to Growth

= Benefit to Growth x Proportion of Benefit to Growth to Allocate Post-Period

Calculation

= 31.50% x 28.32%

= 8.92%

Formula – In-Period Benefit to Growth

= Benefit to Growth – Post-Period Benefit to Growth

Calculation

= 28.32% – 8.92%

= 19.40%

Therefore, the pre-period, in-period and post-period benefit to existing and growth for local conventional vehicles and associated fareboxes and ITS is as follows:

- 71.68% in-period benefit to existing
- 19.40% in-period benefit to growth
- 8.92% post-period benefit to growth

9.2.2 Specialized Transit

Unlike conventional transit, there is no post-period benefit for the purchase of the specialized fleet in-period. Since specialized transit systems typically have some degree of trip denials, any increase in registrants and trips beyond 2034 will require additional capacity (since 0.5% of trips from the 2034 population are anticipated to be denied).

As a result, there is no post-period benefit.

10.0 Apportioning Benefit – Other Capital Items

10.1 Auxiliary Vehicles

The method used to apportion in-period and post-period benefits related to auxiliary vehicles is different from that used for the other vehicles (buses). Supervisor, support and service vehicle needs are tied to the growth in the number of peak conventional transit buses and therefore are responsive to demand (growth in the bus fleet). The benefit for new auxiliary vehicles is therefore apportioned in the same way as the associated conventional vehicles.

Therefore, the benefit to existing, in-period benefit to growth and post-period benefit to growth for supervisor vehicles is:

- 71.68% in-period benefit to existing
- 19.40% in-period benefit to growth
- 8.92% post-period benefit to growth

10.2 Facilities

The expansion vehicles noted in **Section 4.4.1, 5.3** and **6.0** will need to be maintained and stored. The existing operation facility, located at 3332 Harvester Road, is at capacity and is too small to accommodate these vehicles. The facility expansion will support this need. To apportion the benefit between existing, in-period growth, and post-period growth, it is important to understand the capacity of the existing facility and how much of the expansion facility will be used by each existing and growth buses.

Table 25 presents the conversion of each bus type, both existing and expansion vehicles, to the equivalent 40-foot (FFE) buses, rounded to reflect a whole vehicle.

Table 25: Growth Bus Forty-foot Equivalences

Bus Type	Bus Length (feet)	Ratio to 40-foot bus	Quantity	Total FFE buses
Existing Conventional 40-Foot Buses	40	1.0	55	55
Existing Conventional 35-Foot Buses	35	0.875	11	10
Existing Conventional 23-Foot Buses	23	0.575	4	3
Existing Specialized Transit Vehicles	20	0.5	15	8
Auxiliary Vehicles	15	0.375	7	3
Expansion Conventional 40-Foot Buses	40	1.0	57	57
Expansion Specialized Transit Vehicles	20	0.625	3	2
Auxiliary Vehicles	15	0.375	10	4
Existing Fleet	**Not Applicable**	**Not Applicable**	**92**	**79**
Growth	**Not Applicable**	**Not Applicable**	**70**	**63**

The current facility can store 65 conventional buses and 14 specialized transit vehicles equal to 72 forty-foot equivalent buses. The 23-foot vehicles currently in the fleet are not scheduled for regular operations and therefore are stored outside of the current facility. Burlington Transit's auxiliary vehicles are also stored outdoors. As such, Burlington Transit prioritized the interior storage space for 40-foot buses, 35-foot buses, and specialized transit vehicles. There are currently 73 FFEs of these three vehicle types in the fleet but there is only space to store 72 of them in the existing facility. This means that 1 vehicle which should be stored indoors is currently being stored outdoors.

The planned expansion to the storage building will increase the storage space by 33 FFEs. This will allow the 1 existing vehicle to be moved inside leaving space for 32 FFE growth buses. The 2024-2033 Capital Plan outlines that the expansion facility will consider electric buses and that the electric buses will be conventional transit vehicles

(40-foot buses). As such, 40-foot buses will be prioritized within the expansion, the remaining vehicles will be stored outside until a new facility is constructed. This is illustrated in **Table 26**.

Table 26: Storage of Expansion Vehicles in Facility Expansion

Vehicle Type	Existing Vehicles to be Moved Indoors	Total Expansion FFE Vehicles	FFE Expansion Vehicles Stored Indoors	FFE Vehicles Stored Outdoors
40-foot Bus	1	57	32	25
Specialized Transit	0	2	0	2
Auxiliary Vehicles	0	4	0	4
Total	**1**	**63**	**32**	**31**

To determine how much of the expanded facility space will support vehicles related to growth, the apportionment identified for the vehicles throughout the previous sections is weighted based on space required for the expansion vehicles. In the following calculations, the vehicle quantities to be moved indoors in **Table 26** were calculated, based on the are represented as their FFE buses as per **Table 25**.

Formula - Benefit to Existing

= (Existing Conventional FFE Buses to be Stored Inside x Associated Benefit to Existing

+ Conventional Expansion Vehicles x Associated Benefit to Existing) /

Expansion Capacity

Calculation

= (1 x 100% + 32 x 71.68%) / 33

= 72.54%

Formula –Benefit to Growth

= (Conventional Expansion Vehicles x Associated Benefit to Growth) / Expansion Capacity

Calculation

= (32 x 28.32%) / 33

= 27.46%

The expansion will not have sufficient capacity to accommodate all vehicles required within the growth horizon. Since there will be no remaining capacity to support additional growth in the post-period no post-period benefit to growth is allocated. Therefore, the in-period benefit to existing and growth for the transit operations centre are as follows:

- 72.54% in-period benefit to existing
- 27.46% in-period benefit to growth

11.0 Summary of Key Values

Table 27 presents the full capital plan, including how the capital costs are apportioned between benefit to existing and growth.

Table 27: Capital Plan

Item	Unit Price (2024)	Quantity (2024-2034)	Gross Cost	Funding Contribution	10-Year Capital Cost (Burlington Transit)	Benefit to Existing	In-Period Benefit to Growth	Post-Period Benefit to Growth
40' Conventional Buses (including transit signal priority tech)	$1,035,000	57	$58,995,000	$6,140,000	$52,855,000	71.68%	19.40%	8.92%
Specialized Transit Vehicles	$363,000	3	$1,089,000	$637,000	$452,000	36.66%	63.34%	0.00%
Transit Support Vehicles	$49,000	2	$98,000	$0	$98,000	71.68%	19.40%	8.92%
Supervisor Vehicles	$49,000	4	$196,000	$0	$196,000	71.68%	19.40%	8.92%
Service Vehicles	$112,000	4	$448,000	$0	$448,000	71.68%	19.40%	8.92%
Burlington Transit Operations - Expansion	$26,134,000	1	$26,134,000	$10,787,000	$15,347,000	72.54%	27.46%	0.00%
Total	**Not Applicable**	**Not Applicable**	**$86,960,000**	**$17,564,000**	**$69,396,000**	**Not Applicable**	**Not Applicable**	**Not Applicable**

Appendix A

Conventional Transit Ridership Forecast Calculations

1.0 Conventional Transit Ridership Forecast

To estimate the future transit ridership of the conventional transit service, it was assumed that each person would continue to make the same number of total trips per day. This is the same assumption that was used when developing the forecasted number of trips in the Integrated Mobility Plan. As such, the total internal trips for all modes, reported in the 2016 TTS, was divided by the 2016 population to identify the total trips per capita. This figure was then multiplied by the total population in each horizon year, provided by Watson & Associates, to determine the total expected trips in the corresponding year.

Transit ridership forecasts for Burlington Transit must consider increases in both internal and external trips.

The internal transit mode share for each year was calculate by linearly interpolating between the 1.5% 2016 transit mode share from the TTS, and the 12% 2051 target internal transit mode share from the Integrated Mobility Plan. The resulting mode share for each horizon year was multiplied by the calculated total trips in the same year to estimate the total transit ridership.

While the IMP also identifies external transit mode share target of 20%, this includes both trips made by Burlington Transit as well as other transit providers such as GO Transit which should not be included in this DC. Therefore, another methodology was used to calculate growth in external transit mode share using Burlington Transit.

Burlington Transit provides service to the City of Hamilton on Route 1, which is a significant portion of their ridership. Burlington Transit also provides service to the three GO Stations and to the Highway 407 Park & Ride lot, where many passengers transfer onto a GO Train or GO Bus. The portion of the trip used on Burlington Transit is considered an external trip and does not count towards the internal trip mode share target. To estimate the growth of external trips (in addition to internal trips), ridership growth was projected using assumptions about the growth trends. For trips to Hamilton, this meant applying the same growth rate as internal trips. For trips to GO Bus and GO Rail the growth rates from the 2023 GO Rail Station Access Plan were applied. These calculations are outlined throughout the following sections.

1.1 Ridership Projections

Formula – 2016 Total Trips per Capita

= Updated 2016 Average Daily Total Person Trips / 2016 Population

Calculation

= 255,491/ 183,314

= 1.39

Formula – 2024 Average Daily Total Person Trips

= 2016 Total Trips per Capita x 2024 Population

Calculation

= 1.39 x 188,372

= 261,837

Formula – 2024 Mode Share

=2016 mode share + (2024 – 2016 horizon years) x (2051 target transit mode share - 2016 transit mode share) / (2051 - 2016)

Calculation

= 1.5% + (2024 - 2016) x (12% - 1.5%) / (2051 – 2016)

= 1.5% + 8 x 10.5% / 35

= 3.9%

Formula – 2024 Average Weekday Local Transit Ridership

= 2024 Average Daily Total Person Trips x 2024 Mode Share

Calculation

= 261,837 x 3.9%

= 10,212

Formula – 2034 Average Daily Total Person Trips

= 2016 Total Trips per Capita x 2034 Population

Calculation

= 1.39 x 210,989

= 293,275

Formula – 2034 Mode Share

=2016 mode share + (2034 – 2016 horizon years) x (2051 target transit mode share - 2016 transit mode share) / (2051 – 2016 horizon years)

Calculation

= 1.5% + (2034 - 2016) x (12% - 1.5%) / (2051 – 2016)

= 1.5% + 18 x 10.5% / 35

= 6.9%

Formula – 2034 Average Weekday Local Transit Ridership

= 2034 Average Daily Total Person Trips x 2034 Mode Share

Calculation

= 293,275 x 6.9%

= 20,236

Formula – 2044 Population (Interpolated between 2041 and 2051)

=2041 population + (2044 – 2041 horizon years) x (2051 population - 2041 population) / (2051 – 2041 horizon years)

Calculation

=232,966 + (2044 - 2041) x (257,334 – 232,966) / (2051 – 2041)

= 232,966 + 3 x 24,368 / 10

= 240,276

Formula – 2044 Average Daily Total Person Trips

=2044 Population x 2044 Total Trips per Capita

Calculation

=240, 276 x 1.39

= 333,984

Formula – 2044 Mode Share

=2016 mode share + (2044 – 2016 horizon years) x (2051 target transit mode share - 2016 transit mode share) / (2051 – 2016 horizon years)

Calculation

= 1.5% + (2044 - 2016) x (12% - 1.5%) / (2051 – 2016)

= 1.5% + 28 x 10.5% / 35

= 9.9%

Formula – 2044 Average Weekday Local Transit Ridership

= 2044 Average Daily Total Person Trips x 2044 Mode Share

Calculation

= 333,984 x 9.9%

= 33,064

Formula – 2051 Average Daily Total Person Trips

= 2016 Total Trips per Capita x 2051 Population

Calculation

= 1.39 x 257,334

= 357,694

Formula – 2051 Average Weekday Local Transit Ridership

= 2051 Average Daily Total Person Trips x 2051 Mode Share

Calculation

= 357,694 x 12%

= 42,923

Table 28 below summarizes the population, transit mode share, total internal trips (all modes) and average weekday transit ridership.

Table 28: Ridership Projection Summary

Indicator	2016	2024	2034	2044	2051
Population	183,314	188,372	210,989	240,276	257,334
Total Daily Trips (All Modes)	255,491	261,837	293,275	333,984	357,694
Internal Transit Mode Share	1.5%	3.9%	6.9%	9.9%	12.0%
Average Weekday Local Transit Internal Ridership	3,845	10,212	20,236	33,064	42,923

1.1.1 Annual Internal Boardings

The total 2024 boardings of 3,543,757 passengers, includes trips where passengers travel to Hamilton using Burlington Transit or use Burlington Transit to travel to a GO Station to continue a trip outside of the City. These trips would be considered external trips and therefore should not be considered part of the growth to the 12% internal transit mode share identified in **Section 4.3.1**. To estimate the total annual internal boardings, trips to Hamilton and to the GO Stations were removed. The following assumptions were used to determine the annual internal boardings:

- The total number of boardings on Burlington Transit Route 1 which occur at stops within Hamilton represent half of all trips to and from Hamilton, as all passengers boarding Burlington Transit in Hamilton are expected to return using Burlington Transit.
- The total number of transfers reported by PRESTO between Burlington Transit and GO Transit at Appleby GO Station, Aldershot GO Station, Burlington GO Station and the 407 Park & Ride represent 89% of all trips as only 89% of riders use PRESTO cards.

Formula – 2024 Annual Boardings in Hamilton

= (2 x Average Weekday Boardings in Hamilton on Route 1 x Average Weekdays per Year) + (2 x Average Weekend Boardings in Hamilton on Route 1 x Average Saturdays, Sundays, and Holidays per Year)

Calculation

= (2 x 1,740 x 251) + (2 x 1,086 x 104)

= 1,099,368

Formula – 2024 Annual GO Transit Transfers

= (Average Weekday PRESTO Transfers to and from GO Rail + Average Weekday PRESTO Transfers at Highway 407 Park & Ride) / Portion of Riders Who Use PRESTO x Average Weekdays per Year + (Average Weekend PRESTO Transfers to and from GO Rail + Average Weekend PRESTO Transfers at Highway 407 Park & Ride) / Portion of Riders Who Use PRESTO x Average Saturdays, Sundays, and Holidays per Year

Calculation

= (919 + 592) / 89% x 251 + (253 + 313) / 89% x 104

= 492,275

Formula – 2024 Annual Internal Boardings

= 2024 Boardings – 2024 Annual Boardings in Hamilton – 2024 Annual GO Transit Transfers

Calculation

= 3,543,757– 1,099,368 – 492,275

= 1,952,114

Formula – 2024 Transfer Rate

= 2024 Boardings – 2024 Ridership / 2024 Boardings x 100%

Calculation

= (3,543,757 - 2,934,844) / 3,543,757 x 100%

= 17.2%

Formula – 2024 Annual Internal Ridership

= 2024 Annual Internal Boardings x (1-2024 Transfer Rate)

Calculation

= 1,952,114 x (1-17.2%)

= 1,616,350

The calculated average weekday internal transit ridership for each horizon year was converted to annual internal ridership using the ratio of the 2024 annual internal ridership to the calculated average weekday internal ridership. The total boardings were then calculated assuming that the transfer rate will stay consistent at 18.4% after 2024. This transfer rate was defined as the projected future transit rate based on historic trends and based on discussions with Burlington Transit.

Formula – 2034 Annual Internal Transit Ridership

= 2034 Average Weekday Local Transit Ridership x 2024 Annual Local Transit Ridership / 2024 Average Weekday Local Transit Ridership

Calculation

= 20,236 x 1,616,350 / 10,212

= 3,925,175

Formula – 2034 Annual Internal Transit Boardings

= 2034 Annual Internal Ridership / (1-Future Transfer Rate)

Calculation

= 3,925,175 / (1-18.4%)

= 3,925,175

Formula – 2044 Annual Internal Transit Ridership

= 2044 Average Weekday Local Transit Ridership x 2024 Annual Local Transit Ridership / 2024 Average Weekday Local Transit Ridership

Calculation

= 33,064 x 1,616,350 / 10,212

= 5,233,353

Formula – 2044 Annual Internal Transit Boardings

= 2044 Annual Internal Ridership / (1-Future Transfer Rate)

Calculation

= 5,233,353/ (1-18.4%)

= 6,413,423

The resulting annual internal ridership and boardings for each horizon year is summarized in **Table 29** below.

Table 29: Annual Internal Ridership and Boardings

Ridership / Boardings	2024	2034	2044
Annual Internal Ridership	1,616,350	3,202,943	5,233,353
Annual Internal Boardings	1,952,114	3,925,175	6,413,423

1.1.2 Annual External Boardings

As noted above, there are external trips where passengers use Burlington Transit to complete all or a portion of their trip. These types of trips are also expected to grow. To estimate the growth of these types of trips, three assumptions were used:

- The total boardings per capita for trips to and from Hamilton will grow at the same rate as internal trips.
- Growth in trips to GO Rail Stations were estimated based on the forecasts identified in the 2023 GO Rail Station Access Plan.
- Trips on GO Bus from the Highway 407 Park & Ride will grow at a similar rate as the growth at GO Rail stations as these travel patterns are more closely tied to regional growth than growth within Burlington.

1.1.2.1 Route 1 Boardings for Trips to and from Hamilton

The following calculations were used to determine the 2034 and 2044 boardings for trips to and from Hamilton using Route 1. The average daily boardings on Route 1 within Hamilton from Fall 2023 was doubled, to account for bidirectional travel. This was annualized and considered the baseline Hamilton boardings for early-2024. While fall can be considered a higher than average ridership season, the same rate of growth used for the internal trips is applied. Since the total internal boardings are calculated by subtracting the Hamilton boardings from the reported annual ridership, and the same rate of growth are applied to both the internal boardings and the Hamilton boardings, the total boardings projection is not sensitive to seasonality.

Th same rate of growth should not be used in subsequent Development Charge studies as Hamilton is expected to have significant increases in ridership as the light rail transit (LRT) line and associated Hamilton Street Railway (HSR) transit upgrades are implemented. Changes to the LRT are not expected to occur during the horizon of this DC and therefore these calculations which assume ridership growth will be more related to population growth within Burlington than Hamilton are considered appropriate at this time. More detailed ridership projections are expected and can be used to develop a distinct growth profile for transit travel between Hamilton and Burlington in future DC updates.

As calculated above in **Section 1.1.1**, the 2024 Annual Boardings in Hamilton is 1,099,368.

Formula – 2024 Hamilton Boardings Per Capita

= 2024 Annual Boardings in Hamilton / 2024 Population Burlington

Calculation

= 1,099,368 / 188,372

= 5.84

Formula – 2024 to 2034 Internal Growth in Boardings Per Capita

= (2034 Annual Internal Boardings / 2034 Population – 2024 Annual Internal Boardings / 2024 Population) / (2024 Annual Internal Boardings / 2024 Population) x 100%

Calculation

= (3,925,175 / 210,989 – 1,952,114 / 188,372) / (1,952,114 / 188,372) x 100%

= 79.5%

Formula – 2034 Hamilton Boardings Per Capita

= 2024 Hamilton Boardings Per Capita x (1+2024 to 2034 Internal Growth in Boardings Per Capita)

Calculation

= 5.84 x (1 + 79.5%)

= 10.48

Formula – 2034 Projected Hamilton Boardings Per Capita

= 2034 Hamilton Boardings Per Capita x 2034 Population

Calculation

= 10.48 x 210,989

= 2,211,165

Formula – 2024 to 2044 Internal Growth in Boardings Per Capita

= (2044 Annual Internal Boardings / 2044 Population – 2024 Annual Internal Boardings / 2024 Population) / (2024 Annual Internal Boardings / 2024 Population) x 100%

Calculation

= (6,413,423 / 240,276 – 1,952,114 / 188,372) / (1,952,114 / 188,372) x 100%

= 157.6%

Formula – 2044 Hamilton Boardings Per Capita

= 2024 Hamilton Boardings Per Capita x (1+2024 to 2044 Internal Growth in Boardings Per Capita)

Calculation

= 5.84 x (1 + 157.6%)

= 15.03

Formula – 2044 Projected Hamilton Boardings Per Capita

= 2044 Hamilton Boardings Per Capita x 2044 Population

Calculation

= 15.03 x 240,276

= 3,611,348

1.1.2.2 GO Rail Boardings

There are three GO Rail Stations within the Burlington city boundaries, Appleby GO Station, Aldershot GO Station and Burlington GO Station. The 2023 Metrolinx GO Rail Station Access Plan outlines the expected footfall (boardings and alightings) at each GO Rail station in 2019 and 2041 and the total portion of riders expected to use local transit to access the station in each year. These figures were used to determine the total number of riders who would use Burlington Transit and transfer to the GO Rail service for access to a location outside of Burlington.

The total footfall was halved to estimate the number of boardings at each station and multiplied by portion of riders expected to use local transit to access the station in the corresponding year. This resulted in a figure representing the total daily transfers between Burlington Transit and GO Rail services. These figures were assigned to the beginning of the following year to be consistent with the internal ridership calculations as outlined in **Section 4.1**.

Table 30 below summarizes the 2019 and 2041 GO Rail boardings for each of these stations, these will be applied to early the following year to align with the appropriate population projections.

Table 30: 2019 and 2041 GO Rail Boardings Summary

Station	Data Type	Early - 2020 (2019)	Early - 2042 (2041)
Appleby	Daily Rail Boardings	3,588	4,088
Appleby	Local Transit Access	11%	19%
Appleby	**Daily Transfers from Burlington Transit**	**395**	**777**
Aldershot	Daily Boardings	2,763	6,188
Aldershot	Local Transit Access	26%	44%
Aldershot	**Daily Transfers from Burlington Transit**	**718**	**2,723**
Burlington	Daily Boardings	3,450	6,188
Burlington	Local Transit Access	16%	46%
Burlington	**Daily Transfers from Burlington Transit**	**552**	**2,847**

The actual number of transfers from 2023 between Burlington Transit and Metrolinx GO Rail services, measured using PRESTO passes, represent the current ridership in early-2024. Metrolinx indicated in the Station Access Plan that during development of the plan they assumed that "the growth rate will not be impacted by increased teleworking during the post-pandemic transformation; however, the magnitude of ridership will be impacted by the increase in teleworking." As such, the linear growth rate from the GO Rail Station Access Plan (between 2019 and 2041) was applied to the current ridership (2024) and used to both extend the projections to 2044 and interpolate the projections to 2034. This is summarized in **Table 31**.

Table 31: GO Rail Transfers from Burlington Transit Projection Summary

Station	Data Type	Early - 2020 (2019)	Early-2034	Early - 2042 (2041)	Early - 2044
Appleby	Daily Rail Boardings	3,588	3,906	4,088	4,133
Appleby	Local Transit Access	11%	16%	19%	20%
Appleby	**Daily Transfers from Burlington Transit**	**395**	**625**	**777**	**827**
Aldershot	Daily Boardings	2,763	4,942	6,188	6,499
Aldershot	Local Transit Access	26%	37%	44%	46%
Aldershot	**Daily Transfers from Burlington Transit**	**718**	**1,829**	**2,723**	**2,990**
Burlington	Daily Boardings	3,450	5,192	6,188	6,436
Burlington	Local Transit Access	16%	35%	46%	49%
Burlington	**Daily Transfers from Burlington Transit**	**552**	**1,817**	**2,847**	**3,154**

Current PRESTO data, provided by Burlington Transit, shows that the total transfers to GO Rail on the weekend are approximately 28% of the total weekday transfers. It is assumed that this ratio will remain consistent and therefore this ratio was used to calculate the estimated weekend ridership.

As previously noted, PRESTO data represents only 89% of the total transfers as some passengers will make use of cash or travel for free on Burlington Transit and are therefore not reported by PRESTO. Both the weekday and weekend boardings figures were increased to reflect these un-recorded passengers. These adjusted weekday and weekend figures were then used to calculate the total annual transfers between Burlington Transit and GO Rail. **Table 32** outlines this calculation for 2024. The same calculations were completed for each for the other horizon years and **Table 33** presents the adjusted daily figures and the total annual ridership is calculated by multiplying the weekday and weekend ridership by the corresponding number of days per year.

Table 32: GO Rail Daily Annual Transfers to Burlington Transit

Transfers from GO Rail to Burlington Transit	Average PRESTO Transfers Early -2024	PRESTO Utilization[7]	Total Daily Transfers Early-2024[8]
Weekday (Daily)	919	89%	1,033
Weekend (Daily)	253	89%	284

Table 33: Forecasted GO Rail Daily Annual Transfers to Burlington Transit

Transfers from GO Rail to Burlington Transit	Average Days Per Year	Early - 2024	Early-2034[9]	Early - 2044
Weekday (Daily)	251	1,033	3,160	6,771
Weekend (Daily)	104	284	1,097	1,906
Total Annual Ridership	365	288,743	907,251	1,897,681

1.1.2.3 Annual GO Transit Transfers at Highway 407 Park & Ride

In addition to the GO Rail service, Metrolinx also serves the Burlington area with GO Bus routes 12, 40, 41 and 47, which each stop at the Route 407 Park & Ride. These routes connect passengers to the greater GO Transit network facilitating travel across the Greater Toronto and Hamilton area.

As noted above, it is assumed that trips on GO Bus will grow at a similar rate as the growth at GO Rail stations as these travel patterns are more closely tied to regional growth than growth within Burlington. As such the growth rate between the 2024 actual GO Rail transfers and the projected 2044 transfers at GO Rail stations was applied to the reported 2024 transfers reported for the Highway 407 Park & Ride bus stop. These figures were also increased to reflect that only 89% of passengers use PRESTO and annualized.

It is also assumed that the ratio of weekend to weekday boardings will remain consistent through to 2044. The resulting annual boardings are included in **Table 34** and **Table 35** below.

[7] Provided by the City of Burlington, portion of transfers that use PRESTO.
[8] Estimated transfers between GO Bus and Burlington Transit at GO Rail Stations
[9] Interpolated

Table 34: GO Bus Daily Transfers to Burlington Transit

Transfers from GO Bus to Burlington Transit	Average PRESTO Transfers	PRESTO Utilization	Early – 2024 Transfers[10]
Weekday (Daily)	592	89%	665
Weekend (Daily)	313	89%	352

Table 35: Forecasted GO Bus Daily Annual Transfers to Burlington Transit

Transfers from GO Bus to Burlington Transit	Average Days Per Year	Early - 2024	Early - 2034	Early - 2044
Weekday (Daily)	251	665	2,036	4,362
Weekend (Daily)	104	352	1,076	2,306
Total Annual Ridership	365	203,533	622,884	1,334,607

[10] Estimated transfers between GO Bus and Burlington Transit at 407 Park and Ride

Appendix E
Long-Term Capital and Operating Cost Examination

Appendix E: Long-Term Capital and Operating Cost Examination

As a requirement of the D.C.A. under subsection 10(2)(c), an analysis must be undertaken to assess the long-term capital and operating cost impacts for the capital infrastructure projects identified within the D.C. background study. As part of this analysis, it was deemed necessary to isolate the incremental operating expenditures directly associated with these capital projects, factor in cost savings attributable to economies of scale or cost sharing where applicable and prorate the cost on a per unit basis (i.e., sq.ft. of building space, per vehicle, etc.). This was undertaken through a review of the City's approved 2022 Financial Information Return (F.I.R.).

In addition to the operational impacts, over time the initial capital projects will require replacement. This replacement of capital is often referred to as lifecycle cost. By definition, lifecycle costs are all the costs that are incurred during the life of a physical asset, from the time its acquisition is first considered, to the time it is taken out of service for disposal or redeployment. Lifecycle costs were estimated by dividing the growth-related costs by the average useful life.

Table E-1 depicts the annual operating impact resulting from the proposed gross capital projects at the time they are all in place. It is important to note that, while City program expenditures will increase with growth in population, the costs associated with the new infrastructure (i.e., facilities) would be delayed until the time these works are in place.

Table E-1
City of Burlington
Operating and Capital Expenditure Impacts for Future Capital Expenditures

SERVICE/CLASS OF SERVICE	GROSS COST LESS BENEFIT TO EXISTING	ANNUAL LIFECYCLE EXPENDITURES	ANNUAL OPERATING EXPENDITURES	TOTAL ANNUAL EXPENDITURES
1 Services Related to a Highway				
1.1 Roads, Bridges and Culverts, Traffic Signals, Streetlights, Domes and Depots	8,129,624	12,185,572	2,212,326	14,397,898
2 Stormwater Drainage Services				
2.1 Storm Drainage Services	8,129,624	186,365	11,964	198,330
3 Fire Protection Services				
3.1 Fire facilities, vehicles, small equipment and gear	19,435,336	859,472	435,216	1,294,689
4 Parks and Recreation Services				
4.1 Park development, recreation facilities	32,184,244	980,370	28,283	1,008,654
5 Library Services				
5.1 Library facilities, materials, vehicles & equipment	2,216,041	98,549	15,687	114,236
6 Transit Services				
6.1 Transit Services	23,991,411	1,517,929	2,694,244	4,212,174
Total	**94,086,281**	**15,828,259**	**5,397,721**	**21,225,980**

Appendix F
Local Service Policy

Appendix F: Local Service Policy

This Appendix sets out the City's General Policy Guidelines on Development Charges (D.C.) and local service funding for Transportation Services, Storm Drainage, Water Services, Wastewater Services, and Parkland Development. The guidelines outline, in general terms, the size and nature of engineered infrastructure that is included in the study as a D.C. project, versus infrastructure that is considered as a local service, to be emplaced separately by landowners, pursuant to a development agreement.

The following policy guidelines are general principles by which staff will be guided in considering development applications. However, each application will be considered, in the context of these policy guidelines as subsection 59(2) of the Development Charges Act, 1997, as amended (D.C.A.) on its own merits having regard to, among other factors, the nature, type and location of the development and any existing and proposed development in the surrounding area, as well as the location and type of services required and their relationship to the proposed development and to existing and proposed development in the area.

A. Services Related to a Highway

The City of Burlington is growing rapidly and to accommodate the expected growth significant intensification is planned particularly within the existing urban area. The City's Official Plan and Integrated Mobility Plan (IMP) share a vision to accommodate growth by changing the way people are travelling. The IMP sets out specific targets related to the changes in mode share which will be required to accommodate the growth. Since the focus of the Official Plan and the Integrated Mobility Plan is to shift the mode share from auto travel to active and public transportation, the design elements of a highway, as well as its role and function, must change from what exists today. Highways must accommodate all categories of transportation system users and provide a Complete Street.

Complete Streets is a concept that defines a highway as a transportation facility that provides safe and comfortable travel for a wide variety of users, regardless of mode, level of ability, and age. Complete streets allow safe travel for:

- Pedestrians of all ages and ability levels
- Cyclists

- Automobiles
- Transit vehicles
- Delivery vehicles

The main premise of complete streets is the recognition that the function of a street (or a highway) goes beyond simply moving vehicles. Rather, streets play an important role in moving people, connecting the community, accommodating pedestrians and cyclists, enabling goods movement, providing a space for public interaction and civic engagement, and providing access for local stores and businesses. A complete street concept has been fully embraced by the City of Burlington and is fundamental to transportation policy in the City as identified through the key planning documents mentioned earlier. It also translates to the planned capital projects and therefore the local service policy and the development charges process.

Under this premise, the design of a street is approached with the objective of optimizing the right-of-way (ROW) to balance mobility needs and enhance connectivity for all users. Highway designs tend to include a combination of Transportation System Management (TSM) and Travel Demand Management (TDM) strategies to achieve that balance. TSM is a range of measures and infrastructure that help to optimize the flow of travel (e.g. access management, traffic signals). TDM on the other hand refers to strategies that attempt to reduce or more efficiently manage the demand for travel and reduce capital expenditure without further expanding the supply of the network. Examples of TDM strategies with impact on highway design, role, and function include:

- Carpooling to increase the occupancy of vehicles. High occupancy vehicle (HOV) lanes provided within the road platform are needed to promote better utilization of existing assets by increased auto occupancy.
- Active transportation (walking or cycling) to reduce demand for vehicle travel by shifting commuter travel demand to cycling and walking. This measure is supported by on-road and off-road cycling trails, sidewalks, and multi-use pathways.
- Park and ride facilities at transit stations are designed to “capture” auto users at some critical gateway points and divert them to transit or active transportation modes.

The IMP includes both TSM and TDM strategies. One such example is the identification of bus rapid transit initiatives and transit priority corridors which will have effects on the

design of these highways. Several transit priority measures will be required to "prepare" a highway for serving transit effectively. These features will include but will not be limited to:

- HOV or shared lanes for the exclusive or semi-exclusive use of transit vehicles and private automobiles with more than one occupant. They allow high-occupancy vehicles to have faster travel times than general purpose lanes, encouraging transit use and carpooling. Lanes may be designated as shared lanes only during peak periods.
- Reallocation of general purpose travel lanes to dedicated transit lanes along transit priority routes.
- Transit signals and transit priority signals that use real-time information to either extend a green light or shorten a red light when a bus is approaching to help the bus pass through the intersection without stopping thus giving priority to transit vehicles at intersections.
- Queue jump lanes with signal priority allow buses to bypass queues at intersections. Transit vehicles have an advanced green and can enter the intersection before other vehicles.
- Architecturally distinctive passenger amenities, bus bays, bus stop infrastructures and terminals located within the road allowance, and provided to improve safety and comfort for transit users.

Regardless of the approach, the classification of a road (i.e., local, collector or arterial) or the road user, a highway consists of all land and associated infrastructure built to support (or service) the movement of people and goods. These are necessary to allow the road to perform their primary role and function of providing transportation "space" and opportunity for all users. The associated infrastructure to achieve this concept shall include, but is not limited to:

- road pavement, sub-structure and curbs;
- new sidewalks, sidewalks to fill in network gaps, sidewalks associated with the urbanization of roads or sidewalk enhancements and widenings;
- roundabouts, traffic calming features, left and right turn lanes, medians, lay-bys, and pedestrian cross-overs;
- grade separation / bridge structures (for any vehicles, railways and/or pedestrians and cyclists);

- grading, drainage and retaining wall features;
- culvert structures;
- storm water drainage systems;
- traffic control systems, signals and related technologies;
- active transportation facilities (e.g. sidewalks, bike lanes, multi-use trails, trails, pathways, cycle tracks, bike share facilities and services, other cycling amenities, etc.);
- sustainable mobility programs;
- transit lanes, queue jump lanes, bus bays, stops and amenities;
- curb extensions between queue jump lanes and bus bays;
- roadway illumination systems;
- boulevard and median surfaces (e.g. sod & topsoil, paving, etc.);
- street trees, streetscaping and landscaping;
- parking lanes and driveway entrances;
- noise attenuation systems;
- signage;
- railings and safety barriers;
- related utilities; and
- temporary works to facilitate the implementation of any of the above.

For road classification information, refer to the City of Burlington Official Plan.

1. Local and Collector Roads (including land)

    a) All City Local and Collector Roads, internal to development, are a direct developer responsibility under s.59 of the DCA (local service component) and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

    b) City Local and Collector Roads, external to development, inclusive of all land and associated infrastructure, including temporary works, needed to support a specific development or required to link with the area to which the plan relates, are a direct developer responsibility under s.59 of the DCA (local service component) net of applicable oversizing and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure,

Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time).

2. Arterial Roads (including land)

   a) New, widened, extended or upgraded City arterial roads, inclusive of all associated infrastructure, including temporary works, is included as part of highway costing funded through DC net of direct developer responsibility (local service component) and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

   b) Land Acquisition for City arterial roads on existing rights-of-way to achieve a complete street: dedication under the Planning Act provisions (s. 41, 51 and 53) through development lands and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time. In areas with limited development, this is included as part of highway costing funded through DC.

   c) Land Acquisition for City arterial roads on new rights-of-way to achieve a complete street: dedication, where possible, under the Planning Act provisions (s.51 and 53) through development for lands up to the collector standard and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time. Land acquisitions for road widenings and/or oversizing beyond the collector standard, or where located in an area with limited development, are included as part of highway costing funded through DC.

   d) City Land acquisition beyond normal dedication requirements to achieve transportation corridors as services related to highways including grade separations and infrastructure for the movement of pedestrians, cyclists, public transit and/or railway vehicles are included as part of highway costing funded through DC.

3. Traffic and Transit Control Systems, Signals and Intersection Improvements on Area Municipal Highways

    a) New, widened, extended or upgraded City arterial roads, including temporary works, unrelated to a specific development are included as part of highway costing funded through DC net of developer responsibility (local service component) and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

    b) City arterial and non-arterial road improvements related to any private site entrances or entrances to specific development, including any temporary works, are a direct developer responsibility under s. 59 of the DCA (local service component), net of applicable oversizing and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

    c) City Intersection improvements, new or modified signalization, signal timing and optimization plans, area traffic studies for highways attributed to growth and unrelated to a specific development are included as part of highway costing funded through DC as permitted under a. 5(1) of the DCA.

4. Streetlights

    a) Streetlights on new City arterial roads and arterial road improvements are considered part of the complete street and included as part of highway costing funded through DC net of direct developer responsibility (local service component).

    b) Streetlights on City non-arterial roads external to development needed to support a specific development or required to link with the area to which the plan relates are considered part of the complete street and included as a direct developer responsibility under s. 59 of the DCA (local service component).

c) Streetlights on City non-arterial roads internal to development are considered part of the complete street and included as a direct developer responsibility under s. 59 of the DCA (local service component).

5. Transportation-Related Pedestrian and Cycling Facilities (including land)

a) Sidewalks, multi-use trails, trails, pathways, cycle tracks and bike lanes, inclusive of all required land and infrastructure, including related temporary works and grade separations, located within City arterial road are considered part of the complete street and included as part of highway costing funded through DC, net of direct developer responsibility (local service component) and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

b) City Sidewalks deemed to be temporary are considered direct developer responsibility (local service component).

c) Sidewalks, trails, pathways, multi-use trails, cycle tracks and bike lanes, inclusive of all required land and infrastructure, including related temporary works and grade separations that are located within or linking to City non-arterial road corridors internal to development are considered part of the complete street and are a direct developer responsibility under s. 59 of the DCA (local service component) and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

d) Other sidewalks, trails, pathways, multi-use trails, cycle tracks and bike lanes, inclusive of all required land and infrastructure, including related temporary works and grade separations, that are located within City non-arterial road corridors external to development and needed to support a specific development or required to link with the area to which the plan relates are a direct developer responsibility under s. 59 of the DCA (local service component) and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and

Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

e) Multi-use trails (not associated with a road), inclusive of all land and required infrastructure and including related temporary works and grade separations, that go beyond the function of a (parkland) recreational trail and form part of the City's active transportation network for cycling and/or walking are included in DC calculation as permitted under a. 5(1) of the DCA.

6. Sustainable Modes Programs including Transportation Demand Management

a) Cycling amenities including bike racks, lockers, shelters and fix-it stations; pedestrian amenities (e.g. benches); and sustainable mobility programs (e.g. Active Transportation Program and, TDM Program) are considered part of the complete street and included as part of highway costing funded through DC net of direct developer responsibility (local service component) and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

7. Noise Abatement Measures

a) Noise abatement measures external and internal to development where it is related to, or a requirement of a specific development are a direct developer responsibility under s. 59 of the DCA (local service component).

b) Noise abatement measures on new arterial roads and arterial road Improvements abutting an existing community and unrelated to a specific development are included in DC calculation as permitted under a. 5(1) of the DCA.

8. Transit Nodes, Terminals, Lanes and Bus Stop Infrastructure

a) Transit node, transit priority measures (e.g. queue jump lanes, transit signal priority) and bus stop infrastructure and amenities (including bus pads and shelters) located within arterial road corridors, and including transit stations or terminals located on lands to serve these road corridors are considered part of the complete street and included in DC calculation as permitted under s.

5(1) of the DCA net of direct developer responsibility under s. 59 of the DCA (local service component) and shall conform to the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

b) Transit node, transit priority measures (e.g. queue jump lanes, transit signal priority) and bus stop infrastructure and amenities located within non-arterial road corridors internal to development are considered part of the complete street and direct developer responsibility under s. 59 of the DCA (local service component).

c) Transit node, transit priority measures (e.g. queue jump lanes, transit signal priority) and bus stop infrastructure and amenities located within non-arterial road corridors external to development and needed to support a specific development or required to link with the area to which the plan relates are a direct developer responsibility under s. 59 of the DCA (local service component).

9. Infrastructure Assets Constructed by Developers

a) All infrastructure assets constructed by developers must be designed in accordance with the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

b) All infrastructure assets shall be conveyed in accordance with the City of Burlington Standard Specifications, 2022 and Chapter 6 – Infrastructure, Transportation and Utilities of the City of Burlington Official Plan, 2020, or as may be amended from time to time.

B. Storm Drainage

The following guidelines set out, in general terms, the type of storm water management works that constitutes a local service project and, therefore, are the responsibility of the developer:

1. The conveyance system within creeks internal to a development whereby local benefit is apparent or re-alignment is necessary for the development of adjacent lands (for example: creek erosion and bank stabilization).

2. A share of the cost of culverts based on the local benefits derived.

3. All storm water management facilities, outfalls and localized creek or channel improvements related to a secondary plan will be cost shared among all landowners within the secondary planning area through Developer Cost Sharing Agreements unless over-control is required due to downstream constraints.

4. Any storm water quality control measures required to mitigate impacts of development.

C. Parks and Recreation

The following guidelines set out, in general terms, the type of parks works that constitutes a local service project and, therefore, are the responsibility of the developer:

1. Prepare a detailed drainage and grading plan for the park.

2. Undertake the soil stripping and grading in accordance with the plan.

3. Undertake temporary restoration, including the provision of 150mm of topsoil and seeding for the entire park.

4. Provide an “as built” topographical survey of the park as graded.

5. Perimeter fencing as required by the subdivision agreement, and in the case of a local park a minimum of one storm drainage catch basin and connection, and in the case of a district park a minimum of two storm drainage catch basins and connections, as well as a connection for sanitary sewer and water within the park boundary.

6. Three phase hydro to within the park boundary.

7. Meter and water chamber installed within the park block.

Appendix G
Proposed D.C. By-Law

THE CORPORTATION OF THE CITY OF BURLINGTON

BY-LAW NUMBER XX-2024

Development Charges By-law for the City of Burlington

WHEREAS subsection 2(1) of the *Development Charges Act, 1997* (the "Act"), S.O. 1997, c.27, as amended, provides that the council of a municipality may by by-law impose development charges against land to pay for increased capital costs required because of increased needs for services arising from development of the area to which the By-law applies;

AND WHEREAS a development charge background study, entitled "City of Burlington 2024 Development Charges Background Study" (the "Study") prepared by Watson & Associates Economists Ltd. ("Watson"), in association with Dillon Consulting Limited ("Dillon"), and dated March 22, 2024 has been completed in support of the imposition of the development charges;

AND WHEREAS the Study and the proposed development charges by-law were made available to the public, the Council of the Corporation of the City of Burlington (the "Council") gave notice to the public, and held a public meeting through its Committee of the Whole on May 14, 2024 pursuant to section 12 of the Act and the regulations thereto, and Council and the Committee of the Whole received written submissions and heard comments and representations from all persons who asked to be heard;

AND WHEREAS on May 21, 2024, Council approved Finance Report F-04-24 thereby indicating that it intends that the increase in the need for services attributable to the anticipated development will be met;

AND WHEREAS at the meeting held on May 21, 2024, Council expressed its intention that post-period capacity identified in the Study shall be paid for by development charges or other similar charges;

AND WHEREAS at the meeting held on May 21, 2024, Council approved the Study, as amended, and determined that no further public meetings were required under the Act.

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE CITY OF BURLINGTON HEREBY ENACTS AS FOLLOWS:

DEFINITIONS

1. In this By-law,

(a) “accessory dwelling” means a self-contained dwelling unit that is subordinate in purpose to another residential dwelling unit upon the same lot;

(b) “affordable residential unit” means a residential unit that meets the criteria set out in subsection 4.1 of the Act;

(c) “agricultural use” means a bona fide farming operation, including greenhouses which are not connected to Regional water services or wastewater services, sod farms and farms for the breeding and boarding of horses, and includes, but is not limited to, barns, silos and other ancillary buildings to such agricultural use but excluding in all circumstances any portion thereof used for a residential use, a retail use, a non-retail use, marijuana production facility or the breeding, grooming or boarding of household pets;

(d) “air supported structure” means a structure consisting of a pliable membrane which achieves and maintains its shape and support by internal air pressure;

(e) “apartment dwelling” means a building containing more than four dwelling units where the units are connected by an interior corridor. Apartment dwelling also means those stacked townhouse dwellings or back-to-back townhouse dwellings that are development on a block approved for development at a minimum density of sixty (60) units per hectare, excluding the site area used or intended to be used as common outdoor amenity space, pursuant to an executed agreement entered into under section 41 of the *Planning Act, R.S.O. 1990,* c. P.13 or successor legislation;

(f) “attainable residential unit” means a residential unit that meets the criteria set out in subsection 4.1 of the Act;

(g) “back-to-back townhouse dwelling” means a building containing four (4) or more dwelling units separated vertically by a common wall, including a rear common wall, that does not have a rear yard with amenity area;

(h) “bedroom” means a habitable room of at least seven (7) square metres, including a den, loft, study, or other similar area, but does not include a kitchen, bathroom, living room, family room, or dining room;

(i) “building or structure” means a permanent enclosed area greater than ten (10) square metres but does not include that portion of a temporary or seasonal air-supported structure or seasonal sports bubble, but does include above grade storage tanks;

(j) “canopy” means a canopy as defined O.Reg. 332/12 under the *Building Code Act, 1992*, S.O. c. 23, and includes a roof-like structure over a gas bar or service station;

(k) “charitable dwelling” means a residential building or part of a mixed-use building licensed as a charitable home under the *Charitable Institutions Act, R.S.O. 1990*, c. C.9;

(l) “development” means the construction, erection or placing of one (1) or more building 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 usability thereof, and includes redevelopment;

(m) “development charge” means a charge or charges imposed pursuant to this By-law;

(n) “dwelling unit” means either (1) a room or suite of rooms comprising a single housekeeping unit, used, designed or intended for use by one person or persons living together, in which culinary and sanitary facilities are provided for the exclusive use of such person or persons; or (2) in the case of a special care/special need dwelling as defined in this By-law, a room or suite of rooms comprising a single housekeeping unit, used, designed or intended for use by, one person with or without exclusive sanitary and/or culinary facilities or more than one person if sanitary facilities are directly connected and exclusively accessible to more than one room or suite of rooms;

(o) “enclosed” means an area of a building or structure delineated by one or more walls or part walls, and covered by a roof or roof-like structure;

(p) “grade” means the average level of finished ground adjoining a building or structure at all exterior walls;

(q) “group home” means a residential building or the residential portion of a mixed-use building containing a single housekeeping unit which may or not be 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 a general or special Act as may be amended and any successor legislation for the accommodation of residents, exclusive of staff;

(r) “hospice” means a building or structure used to provide not-for-profit palliative care to the terminally ill;

(s) “hospital” means land, building or structures used and occupied by a public hospital that receives provincial aid under the *Public Hospitals Act, R.S.O. 1990*, c. P. 40, and excluding any portion of the land occupied by a tenant of the hospital;

(t) “industrial use” means non-retail uses where the land or buildings, or portions thereof are intended or designed for manufacturing, producing, processing, storing or distribution of something, and the retail sale by a manufacturer, producer or processor of something that they have manufactured, produced or processed, if the retails sales are at the site where the manufacturing, production or processing takes place, as well as office space that is ancillary to the producing, storing or distribution of something at the site, but shall not include self-storage facilities or retail warehouses;

(u) “institutional” for the purposes of section 34, means development of a building or structure intended for use:

    (i) as a long-term care home within the meaning of subsection 2 (1) of the *Long-Term Care Homes Act, 2007*;

    (ii) as a retirement home within the meaning of subsection 2(1) of the *Retirement Homes Act, 2010*.

(iii) By any institution of the following post-secondary institutions for the objects of the institution:

(i) a university in Ontario that receives direct, regular and ongoing operation funding from the Government of Ontario;

(ii) a college or university federated or affiliated with a university described in subclause (i); or

(iii) an Indigenous Institute prescribed for the purposes of section 6 of the *Indigenous Institute Act, 2017*;

(iv) as a memorial home, clubhouse or athletic grounds by an Ontario branch of the Royal Canadian Legion; or

(v) as a hospice to provide end of life care;

(v) "local board" means a municipal service board, municipal business corporation, transportation commission, public library board, board of health, policy service board, planning board, or any other board, commission, committee, body or local authority established or exercising any power under any act with respect to the affairs or purposes of one or more local municipalities or the Region, excluding a conservation authority, any municipal business corporation not deemed to be a local board under O.Reg. 599/06 under the *Municipal Act, 2001,* S.O. c. 25, and any corporation created under the *Electricity Act, 1998, S.O. 1998,* c. 15, Sched. A or successor legislation;

(w) "marijuana production facilities" means a building or structure connected to Regional water services or wastewater services that is used, designed or intended for growing, producing, testing, destroying, storing or distribution, excluding retail sales, of marijuana or cannabis authorized by a license issued by the federal Minister of Health pursuant to section 25 of the Marihuana for Medical Purposes Regulations, SOR/2013-119, under the *Controlled Drugs and Substances Act, S.C. 1996,* c.19.

(x) "mixed-use" means land, buildings or structures used or designed or intended for a combination of non-residential use and residential use;

(y) “multiple dwelling” means all dwellings other than single detached dwellings, semi-detached dwellings, apartment dwellings, special care/special need dwellings, and accessory dwellings;

(z) “non-profit housing development,” means development of a building or structure intended for use as residential premises by:

(i) a corporation to which the *Not-for-Profit Corporations Act, 2010* applies, that is in good standing under that Act and whose primary objective is to provide housing;

(ii) a corporation without share capital to which the Canada Not-for-profit Corporations Act applies, that is in good standing under that Act and whose primary objective is to provide housing; or

(iii) a non-profit housing co-operative that is in good standing under the *Co-operative Corporations Act*;

(aa) “non-residential use” means land, building or structures or portions thereof intended or used for a use other than for a residential use;

(bb) “nursing home” means a residential building or the residential portion of a mixed-use building licensed as a nursing home under the *Nursing Homes Act, R.S.O. 1990,* c. N.8*;*

(cc) “place of worship” means any building or part thereof that is exempt from taxation as a place of worship pursuant to paragraph 3 of section 3 of the *Assessment Act, R.S.O. 1990,* c. A.31*;*

(dd) “redevelopment” means the construction, erection or placing of one or more buildings or structures on land where all or part of a building or structure has previously been demolished on such land, or changing the use of a building or structure from residential to non-residential, or from non-residential to residential, or from one form of residential to another form of residential, or from one form of non-residential to another form of non-residential;

(ee) “rental housing,” for the purposes of section 19 and 34, means development of a building or structure with four or more dwelling units all of which are intended for use as rented residential premises;

(ff) “residential mobile home” means a trailer, including park model trailers as defined in the Ontario Building Code and Canadian Standards Association, or a transportable prefabricated structure that is situated in one particular place and used for, or intended to be used for, permanent year-round residential occupancy;

(gg) “residential use” means lands, buildings or structures or portions thereof used, or designed or intended for use as a home or residence of one or more individuals, and shall include a single-detached dwelling, a semi-detached dwelling, a multiple dwelling, an apartment dwelling, a special care/special need dwelling, an accessory dwelling and the residential portion of a mixed-use building or structure;

(hh) “retirement home or lodge” means a residential building or the residential portion of a mixed-use building which provides accommodation primarily for retired persons or couples where each private bedroom or living unit has a separate private bathroom and separate entrance from a common hall but where common facilities for the preparation and consumption of food are provided, and common lounges, recreation rooms and medical care facilities may also be provided;

(ii) “seasonal air-supported structure” means an air-supported structure that is raised and/or erected for a maximum of six months in any given year to allow for the use of an outdoor sports field or portion thereof during the winter for sports-related activities and includes a seasonal bubble;

(jj) “seasonal structure” means a building or structure placed on land and used, designed or intended for use for:

(i) a non-residential purpose during a single season of the year where such building or structure is designed to be easily demolished or removed from the land at the end of the season; or

(ii) residential mobile homes that are not able to be occupied year-round due to municipal or provincial land use regulation;

(kk) “semi-detached dwelling” means a building divided vertically into 2 dwelling units each of which has a separate entrance and access to grade;

(ll) “services” means services designated in section 5 of this By-law or in an agreement under section 44 of the Act;

(mm) “single-detached dwelling” means a completely detached building containing only one dwelling unit and includes a residential mobile home;

(nn) “special care/special needs dwelling” means a building:

(i) containing two or more dwelling units which units have a common entrance from street level;

(ii) where the occupants have the right to use in common, halls, stairs, yards, common rooms, and accessory buildings; which may or may not have exclusive sanitary and/or culinary facilities;

(iii) that is designed to accommodate persons with specific needs, including independent permanent living arrangements,

(iv) where support services such as meal preparation, grocery shopping, laundry, housekeeping, nursing, respite care and attendant services are provided at various levels;

and includes, but is not limited to retirement homes and lodges, nursing homes, charitable dwellings, accessory dwellings and group homes;

(oo) “stacked townhouse dwelling” means a building containing two or more dwelling units, each dwelling separates horizontally and/or vertically from another dwelling unit by a common wall;

(pp) “temporary building or structure” means a non-residential building or structure constructed or placed upon lands which is demolished or removed from the lands within three (3) years of building permit issuance, and includes but is not limited to, sales trailers, temporary office trailers and industrial tents provided that such buildings meet the aforementioned criteria but excludes a mobile home;

(qq) “temporary venue” means a building that is placed or constructed on land and is used, designed or intended for use for a particular event where the event has a duration of one (1) week or less and the building is erected immediately

before the beginning of the event and is demolished or removed from the land immediately following the end of the event;

(rr) "total floor area" means the sum total of the total areas of the floors whether above or below grade, measured between the exterior faces of the exterior walls, including part walls, of the building or from the centre line of a common wall separating two uses and;

(i) includes the area of a mezzanine as defined in the Ontario Building Code;

(ii) excludes those areas used exclusively for parking garages or structures; and

(iii) includes those areas covered by roofs or roof-like structures, but does not include a canopy or covered patios associated with a restaurant.

2. In this By-law where reference is made to a statute or a section of a statute such reference is deemed to be a reference to any amendments or successor legislation.

DESIGNATION OF SERVICES

3. That it is hereby declared by Council that all development of land within the area to which this By-law applies will increase the need for services as set out in Section 5.

4. The development charge applicable to a development as determined under this By-law shall apply without regard to the services required or used by a particular development.

5. Development Charges shall be imposed for the following categories of services and classes of service to pay for the increase capital costs required because of the increased needs for services arising from development:

Services

(a) Services Related to a Highway;

(b) Stormwater Drainage Services;

(c) Fire Protection Services;

(d) Transit Services;

(e) Parks and Recreation Services; and

(f) Library Services.

APPLICATION OF BY-LAW – RULES

6. For the purpose of complying with section 6 of the Act:

(a) the area to which this By-law applies shall be in the area described in section 7 of this By-law;

(b) the rules developed under paragraph 9 of subsection 5(1) of the Act for determining if development charges are payable under this By-law in any particular case;

(c) and for determining the amount of the charges shall be as set forth in sections 5 through 44, inclusive of this By-law;

(d) the rules for exemptions, relief and adjustments shall be as set forth in section 18 through section 33 inclusive of this By-law; the indexing of charges shall be in accordance with section 40 of this By-law; and

(e) the rules with respect to the redevelopment of lands shall be in accordance with the rules set forth in sections 31 and 32 of this By-law.

AREA TO WHICH THE BY-LAW APPLIES

7. Subject to section 8, this By-law applies to all lands in the geographic area of the City.

8. This By-law shall not apply to lands that are owned by and used for the purposes of:

(a) the City or a local board thereof;

(b) a board as defined in subsection (a) of the *Education Act; R.S.O. 1990,* c. E.2;

(c) the Regional Municipality of Halton or any local board thereof;

(d) land 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 development charges would otherwise be payable is intended to be occupied and used by the university.

APPROVALS FOR DEVELOPMENT

9. Development charges shall be imposed upon all lands, buildings or structures that are developed for residential or non-residential uses if the development requires any of the following:

    (a) the passing of a zoning By-law or of an amendment to a zoning By-law under section 34 of the *Planning Act*;

    (b) the approval of a minor variance under section 45 of the *Planning Act;*

    (c) a conveyance of land to which a By-law passed under subsection 50(7) of the *Planning Act* applies;

    (d) the approval of a plan of subdivision under section 51 of the *Planning Act;*

    (e) a consent under section 53 of the *Planning Act*;

    (f) the approval of a description under section 50 of the *Condominium Act* or s. 9 of the *Condominium Act, 1998*; or

    (g) the issuance of a permit under the *Building Code Act*, 1992 in relation to a building or structure.

10. No more than one development charge for each service designated in section 5 shall be imposed upon any lands or buildings to which the By-law applies even though two or more of the actions described in section 9 are required before the lands or buildings can be developed.

11. Notwithstanding sections 10, 34 and 35, if

(a) two or more of the actions described in section 9 occur at different times; or

(b) a second or subsequent building permit is issued

resulting in increased, additional or different development, then additional development charges shall be imposed in respect of such increased, additional or different development permitted by that action or permit.

12. Where a development requires an approval described in section 9 after the issuance of a building permit and no development charges have been paid, then the development charge shall be paid prior to the granting of the approval required under section 9 of this By-law.

13. If a development does not require a building permit but does require one or more of the approvals described in section 9, then notwithstanding sections 34 and 35, development charges shall nonetheless be payable.

14. Nothing in this By-law prevents Council from requiring in an agreement under section 51, or as a condition of consent or an agreement respecting same under section 53 of the *Planning Act*, that the owner, at his or her own expense, shall install such local services related to or within a plan of subdivision, as council may require in accordance with the City's applicable local services policies in effect at that time, or that the owner pay for local connections to water mains, sanitary sewers and/or storm drainage facilities installed at the owners' expense, including administrative, processing, or inspection fees.

CALCULATION OF DEVELOPMENT CHARGES

15. The development charge with respect to the development of any land, buildings or structures shall be calculated as follows:

(a) in the case of residential development, including a dwelling unit accessory to a non-residential use or the residential portion of a mixed-use development, based upon the number and type of dwelling units; or

(b) in the case of non-residential development, or the non-residential portion of a mixed-use development, based upon the total floor area of such development.

RESIDENTIAL DEVELOPMENT CHARGES

16. Development charges as described in Schedule A, shall be imposed upon residential uses of lands, buildings or structures, including a residential dwelling unit accessory to a non-residential use, and in the case of a mixed-use building or structure upon the residential component of the mixed-use building or structure.

NON-RESIDENTIAL DEVELOPMENT CHARGES

17. Development charges, as described in Schedule A, shall be imposed upon non-residential uses of lands, buildings or structures, and in the case of a mixed-use building, upon the non-residential uses of the mixed-use building or structure.

RULES WITH RESPECT TO EXEMPTIONS FOR INTENSIFICATION OF HOUSING

18. (a) Notwithstanding the provisions of this By-law, development charges shall not be imposed with respect to developments or portions of developments as follows:

(i) the enlargement to an existing residential dwelling unit;

(ii) the creation of the first two additional dwelling units in, or ancillary to, and existing single detached dwelling; or

(iii) the creation of the first additional dwelling unit in, or ancillary to, an existing residential building.

(iv) the creation of a second dwelling unit in prescribed classes of proposed new residential buildings, including structures ancillary to dwellings, subject to the following restrictions:

Item	Name of Class of Proposed New Residential Buildings	Description of Class of Proposed New Residential Buildings	Restrictions
1.	Proposed new detached dwellings	Proposed new residential buildings that would not be attached to other buildings and that are permitted to contain a second dwelling unit, that being either of the two dwelling units, if the units have the same gross floor area, or the smaller of the dwelling units.	The proposed new detached dwelling must only contain two dwelling units. The proposed new detached dwelling must be located on a parcel of land on which no other detached dwelling, semi-detached dwelling or row dwelling would be located.

Item	Name of Class of Proposed New Residential Buildings	Description of Class of Proposed New Residential Buildings	Restrictions
2.	Proposed new semi-detached dwellings or row dwellings	Proposed new residential buildings that would have one or two vertical walls, but no other parts, attached to other buildings and that are permitted to contain a second dwelling unit, that being either of the two dwelling units, if the units have the same gross floor area, or the smaller of the dwelling units.	The proposed new semi-detached dwelling or row dwelling must only contain two dwelling units. The proposed new semi-detached dwelling or row dwelling must be located on a parcel of land on which no other detached dwelling, semi-detached dwelling or row dwelling would be located.
3.	Proposed new residential buildings that would be ancillary to a proposed new detached dwelling, semi-detached dwelling or row dwelling	Proposed new residential buildings that would be ancillary to a proposed new detached dwelling, semi-detached dwelling or row dwelling and that are permitted to contain a single dwelling unit.	The proposed new detached dwelling, semi-detached dwelling or row dwelling, to which the proposed new residential building would be ancillary, must only contain one dwelling unit. The gross floor area of the dwelling unit in the proposed new residential building must be equal to or less than the gross floor area of the detached dwelling, semi-detached dwelling or row dwelling to which the proposed new residential building is ancillary.

(b) Notwithstanding subsection 18(a)(ii), development charges shall be imposed in accordance with section 16 if the total floor area of the additional one or two dwelling units in the single detached dwelling exceeds the total floor area of the dwelling unit already in the building.

(c) Notwithstanding subsection 18(a)(iii), development charges shall be imposed in accordance with subsection 16 if the additional dwelling unit has a total floor area greater than:

(i) in the case of a semi-detached or row dwelling, the total floor area of the dwelling unit already in the building; and

(ii) in the case of any other residential building, the total floor area of the smallest dwelling unit already in the building.

RULES WITH RESPECT TO DISCOUNTS FOR RENTAL HOUSING

19. Notwithstanding the provisions of this By-law, development charges for rental housing developments will be reduced based on the number of bedrooms in each unit as follows:

(a) Three or more bedrooms – 25% reduction;

(b) Two bedrooms – 20% reduction; and

(c) All other bedroom quantities – 15% reduction.

RULES WITH RESPECT TO AFFORDABLE AND ATTAINABLE RESIDENTIAL UNIT EXEMPTIONS

20. Notwithstanding the provisions of this By-law, once proclaimed, development charges shall not be imposed with respect to developments as follows:

    (a) Affordable residential units; or

    (b) Attainable residential units.

RULES WITH RESPECT TO INDUSTRIAL EXPANSION EXEMPTIONS

21. That if development includes the enlargement of the total floor area of an existing industrial building, the amount of the development charges that is payable is the following:

    (a) if the total floor area is enlarged by fifty percent (50%) or less, the amount of the development charges in respect of the enlargement is zero; or

    (b) if the total floor area is enlarged by more than fifty percent (50%), development charges are payable on the amount by which the enlargement exceeds fifty percent (50%) of the total floor area before the enlargement.

22. For the purpose of section 21, the term “existing industrial building” shall have the same meaning as the term has in O. Reg. 82/98 made under the Act.

23. That for the purpose of interpreting the definition of “existing industrial building” contained in O.Reg. 82/98 made under the Act and as referenced in section 22, regard shall be had for the classification of the lands in question pursuant to the *Assessment Act, R.S.O. 1990,* c. A.31, and in particular:

    (a) whether the lands fall within a tax class such that taxes on the lands are payable at the industrial tax rate; and

(b) whether more than fifty percent (50%) of the total floor area of the building has an industrial property code for assessment purposes.

24. Despite section 23, distribution centers, warehouses, buildings used for the bulk storage of goods and truck terminals shall be considered industrial buildings. For the purposes of this by-law, self-storage facilities are not considered to be industrial buildings.

25. For greater certainty in applying the exemption set out in sections 21, 22, 23 and 24, the total floor area of an existing industrial building is enlarged where there is a bona fide increase in the size of the existing industrial building, and the enlarged area is attached to the existing industrial building and is used for or in connection with an industrial purpose as set out in subsection 1(1) of O. Reg. 82/98 made under the Act. Without limiting the generality of the foregoing, the exemption in this section shall not apply where the enlarged area is attached to the existing industrial building by means only of a tunnel, bridge, canopy, corridor or other passage-way, or through a shared below-grade connection such as a service tunnel, foundation, footing or a parking facility.

LOT COVERAGE RELIEF

26. Where there is a non-residential development, the development charges otherwise payable pursuant to section 17 shall be calculated in accordance with the following:

(a) for the portion of the total floor area of such development that is less than or equal to one (1.0) times the area of the lot or block, the non-residential development charges under this By-law apply; and

(b) for the portion of the total floor area of such development that is greater than one (1.0) times the area of the lot or block, non-residential development charges shall not apply.

OTHER EXEMPTIONS

27. Notwithstanding section 17, development charges shall not apply to lands, buildings or structures used or to be used for the purposes of:

(a) a hospital, excluding any portion of the lands, buildings or structures occupied by a tenant of the hospital;

(b) facilities providing health and wellness services to senior citizens through programs administered by the Region of Halton or its affiliates;

(c) hospices;

(d) a place of worship;

(e) a conservation authority, unless such buildings or structures are used primarily for or in connection with (i) recreational purposes for which the conservation authority charges admission and/or fees, or (ii) any retail purposes;

(f) seasonal structures;

(g) agricultural uses;

(h) temporary venues;

(i) a memorial home, clubhouse or athletic grounds of an Ontario branch of the Royal Canadian Legion, pursuant to paragraph 3 of section 3 of the *Assessment Act, R.S.O. 1990,* c. A.31; and

(j) Non-profit housing developments.

RULES WITH RESPECT TO TEMPORARY BUILDINGS

28. Notwithstanding any other provisions of this By-law, a temporary building or structure shall be exempt from the payment of development charges provided that:

(a) prior to the issuance of the building permit for the building, the owner shall provide to the City securities in the form of cash or a letter of credit acceptable to the City's Director of Finance in the full amount of the development charges otherwise payable pursuant to this By-law; and

(b) within three (3) years of building permit issuance, the owner shall provide to the City evidence, to the City's satisfaction, that the temporary building or structure has been demolished or removed from the lands, whereupon the City shall return to the owner the securities provided pursuant to subsection 26(a), without interest.

29. In the event that the owner does not provide satisfactory evidence of the demolition or removal of the temporary building or structure in accordance with subsection 28(b), the building or structure will be deemed not to be a temporary structure and the City shall transfer the amount secured pursuant to subsection 28(a) into the appropriate development charges reserve funds in payment of the development charges applicable to the building without further notification to the owner.

30. The timely provision of satisfactory evidence of the demolition or removal of the temporary building or structure in accordance with subsection 28(b) shall be solely the owner's responsibility.

RULES WITH RESPECT TO THE REDEVELOPMENT OF LAND – DEMOLITION

31. That in the case of a demolition of all or part of a building or structure:

    (a) a credit shall be allowed against the development charges otherwise payable pursuant to this By-law, provided that where a demolition permit for a residential building or structure has been issued and has not been revoked:

        (i) on or after July 1, 2009, a building permit has been issued for the redevelopment within five (5) years from the date the demolition permit was issued for a residential building or structure.

    (b) a credit shall be allowed against the development charges otherwise payable pursuant to this By-law, provided that a demolition permit has been issued for a non-residential building or structure and has not been revoked.

    (c) the credit shall be calculated based on the portion of the building or structure used for a residential purpose that has been demolished by multiplying the number and type of dwelling units demolished, or in the case of a building used for a non-residential purpose that has been demolished by multiplying the non-residential total floor area demolished, by the relevant development charges under this By-law in effect on the date when the development charges are payable pursuant to this By-law with respect to the redevelopment.

(d) no credit shall be allowed where the demolished building or structure or part thereof would have been exempt pursuant to this By-law.

(e) where the amount of any credit pursuant to this section exceeds, in total, the amount of the development charges otherwise payable under this By-law with respect to the redevelopment, the excess credit shall be reduced to zero and shall not be carried forward unless the carrying forward of such excess credit is expressly permitted by a phasing plan for the redevelopment that is acceptable to the Director of Finance or equivalent.

(f) despite subsection 31(a) above, where the building cannot be demolished until the new building has been erected, the owner shall notify the City in writing and pay the applicable development charges for the new building in full and if the existing building is demolished not later than twelve (12) months from the date a building permit is issued for the new building, the City shall provide a refund calculated in accordance with this section to the owner without interest. If more than twelve (12) months is required to demolish the existing building, the owner shall make a written request to the City and the City's Director of Finance and/or Treasurer or designate may extend the time in which the existing building must be demolished in his or her sole and absolute discretion and upon such terms and conditions as he or she considers necessary or desirable and such decision shall be made prior to the issuance of the first building permit for the new building.

RULES WITH RESPECT TO REDEVELOPMENT OF LAND – CONVERSION

32. That in the case of a conversion of all or part of a building or structure:

(a) a credit shall be allowed against the development charges otherwise payable under this By-law;

(b) the credit shall be calculated based on the portion of the building or structure that is being converted by multiplying the number and type of dwelling units being converted or the non-residential total floor area being converted by the relevant development charges under this By-law in effect on the date when the development charges are payable pursuant to this By-law with respect to the redevelopment;

(c) no credit shall be allowed where the building or structure or part thereof prior to conversion would have been exempt pursuant to this By-law; and

(d) where the amount of any credit pursuant to this section exceeds, in total, the amount of the development charges otherwise payable under this By-law with respect to the redevelopment, the excess credit shall be reduced to zero and shall not be carried forward unless the carrying forward of such excess credit is expressly permitted by a phasing plan for the redevelopment that is acceptable to the Director of Finance or equivalent.

MANDATORY PHASE-IN OF DEVELOPMENT CHARGES

33. The amount of the development charges described in Schedule A to this bylaw shall be reduced as follows, in accordance with section 5(6) of the Act, subject to indexing as per section 40 herein:

(a) the first year that the by-law is in force - 80 percent of the development charge that could otherwise be charged;

(b) the second year that the by-law is in force - 85 percent of the development charge that could otherwise be charged;

(c) the third year that the by-law is in force - 90 percent of the development charge that could otherwise be charged;

(d) the fourth year that the by-law is in force - 95 percent of the development charge that could otherwise be charged; and

(e) the fifth to tenth years that the by-law is in force - 100 percent of the development charge will be imposed.

PAYMENT OF DEVELOPMENT CHARGES

34. Development charges, adjusted in accordance with section 40 of this By-law to the date of payment, are payable at the following times:

(a) Charges imposed under section 16 in relation to residential use are payable on the date that the first building permit approving the construction of a foundation is issued; and

(b) Charges imposed under section 17 in relation to non-residential use are payable on the date that the first building permit approving the construction of a foundation is issued.

(c) Notwithstanding subsection 34(a) and 34(b), development charges for rental housing and institutional developments are due and payable in 6 installments commencing with the first installment payable on the date of occupancy, and each subsequent installment, including interest at the prime lending rate of the City's financial institution, payable on the anniversary date each year thereafter.

(d) Where the development of land results from the approval of a Site Plan or Zoning By-law Amendment made on or after January 1, 2020, and the approval of the application occurred within the period of building permit issuance as specific in section 26.2(5) of the Act, the development charges under subsections 34(a), 34(b), and 34(c) shall be calculated based on the rates set out in Schedule "A" on the date the planning application was made, including interest at the prime lending rate of the City's financial institution. Where both planning applications apply development charges under subsections 34(a), 34(b), and 34(c) shall be calculated on the rates set out in Schedule "A", including interest at the prime lending rate of the City's financial institution, on the date of the latter planning application.

35. The City may require, and where so required, an owner shall enter into an agreement, including the provision of security for the owner's obligations under agreement pursuant to section 27 of the Act providing for all or part of a development charge to be paid before or after it otherwise would be payable. The terms of such agreement shall then prevail over the provisions of this By-law.

36. In the alternative to payment by means provided in subsection 32(a) or 32(b), the City may, by an agreement entered into with the owner, accept the provision of services in full or partial satisfaction of the development charge otherwise payable provided that:

(a) if the City and the owner cannot agree as to the reasonable cost of doing the work under section 35, the dispute shall be referred to Council for decision; and

(b) if the credit exceeds the amount of the charge for the service to which the work relates:

(i) the excess amount shall not be credited against development charges under another by-law for any other service, unless the City has so agreed under section 38 of the Act; and

(ii) in no event shall the City be required to make a cash payment to the credit holder.

INTEREST

37. The City shall pay interest on a refund under subsection 18(3), 25(2) and section 36 of the Act at a rate equal to the Bank of Canada rate on the date the By-law comes into force.

UNPAID DEVELOPMENT CHARGES

38. If development charges, or any part thereof, remain unpaid after the due date, the amount unpaid shall be added to the tax roll and shall be collected as taxes.

39. If any unpaid development charges are collected as taxes in accordance with section 38, the monies so collected shall be credited to the appropriate development charge reserve fund.

INDEXING

40. Development charges imposed pursuant to this By-law, shall be adjusted without amendment to this by-law, commencing on the first day of April in the year following enactment of this by-law and annually thereafter, in accordance with the Statistics Canada Quarterly, Construction Price Statistics (catalogue number 62-007).

SCHEDULES

41. The following schedules to this By-law form an integral part thereof:

    Schedule A – Residential and Non-residential Development Charges

DATE BY-LAW IN FORCE

42. This By-law shall come into force on June 1, 2024.

DATE BY-LAW EXPIRES

43. This By-law will expire ten (10) years from the date it comes into force, unless it is repealed at an earlier date by a subsequent By-law.

REPEAL

44. By-law 29-2019 be and is hereby repealed effective on the date this By-law comes into force.

REGISTRATION

45. A certified copy of this By-law may be registered on title to any land to which this By-law applies.

SEVERABILITY

46. In the event any provisions, or part thereof, of this By-law is found, by a court of competent jurisdiction, to be ultra vires, such provisions, or part thereof, shall be deemed to be severed, and the remaining portion of such provision and all other provisions of the By-law shall remain in full force and effect.

HEADINGS

47. The headings inserted in this By-law are for convenience of reference only and shall not affect the construction or interpretation of this By-law.

SHORT TITLE

48. This By-law may be cited as the City of Burlington Development Charges By-law.

READ and PASSED this 21 day of May, 2024.

_____ MAYOR

Marianne Meed Ward

_____ CITY CLERK

Samantha Yew

SCHEDULE "A"
CITY OF BURLINGTON
SCHEDULE OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES

Service/Class of Service	RESIDENTIAL ($ per Dwelling Unit)						NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Multiples - 3 or more Bedrooms	Multiples - 1 or 2 Bedrooms	Special Care/Special Dwelling Units	($ per sq.m of Gross Floor Area)
Municipal Wide Services/Class of Service:							
Services Related to a Highway	19,864	10,585	8,003	15,759	11,349	6,468	164.47
Stormwater Drainage Services	175	93	71	139	100	57	3.01
Fire Protection Services	2,038	1,086	821	1,617	1,164	664	16.47
Transit Services	1,617	862	651	1,283	924	527	13.13
Parks and Recreation Services	4,482	2,388	1,806	3,556	2,561	1,460	8.18
Library Services	256	136	103	203	146	83	0.43
TOTAL	**28,432**	**15,150**	**11,455**	**22,557**	**16,244**	**9,259**	**205.70**