Development Charges Background Study

City of St. Catharines

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June 2, 2021

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List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
A.M.P.	Asset management plan
CANSIM	Canadian Socio-Economic Information Management System (Statistics Canada)
C.B.C.	Community Benefits Charge
D.C.	Development charge
D.C.A.	*Development Charges Act, 1997*, as amended
F.I.R.	Financial Information Return
G.F.A.	Gross floor area
I.C.I.P.	Investing in Canada Infrastructure Program
LPAT	Local Planning Appeal Tribunal
M.O.E.C.P.	Ministry of the Environment, Conservation and Parks
NAICS	North American Industry Classification System Codes
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.W.M.	Stormwater management
sq.ft.	square foot

List of Acronyms and Abbreviations (Cont'd)

sq.m.	square metre
T.M.P.	Transportation Master Plan

Executive Summary

Executive Summary

1. The report provided herein represents the Development Charges (D.C.) Background Study for the City of St. Catharines required by the *Development Charges Act, 1997* (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 – Overview of the legislative requirements of the Act;
    - Chapter 2 – Summary of the residential and non-residential growth forecasts for the City;
    - Chapter 3 – Approach to calculating the D.C.;
    - Chapter 4 – Review of historical service standards and identification of future capital requirements to service growth and related deductions and allocations;
    - Chapter 5 – Calculation of the D.C.s;
    - Chapter 6 – D.C. policy recommendations and rules; and
    - Chapter 7 – By-law implementation.

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

    1) Identify amount, type and location of growth;

    2) Identify servicing needs to accommodate growth;

    3) Identify capital costs to provide services to meet the needs;

    4) Deduct:

        - Grants, subsidies and other contributions;
        - Benefit to existing development;
        - Amounts in excess of 10-year historical service calculation;
        - D.C. reserve funds (where applicable);

    5) Net costs are then allocated between residential and non-residential benefit; and

6) Net costs divided by growth to provide the D.C. charge.

3. The D.C. process needs to address a number of items that were put in place through the *Smart Growth for Our Communities Act, 2015* (Bill 73). These items have been incorporated throughout the report and in the draft by-law, as necessary. These items include:

    a. Area-rating: Council must consider the use of area-specific charges.

    b. Asset Management Plan for New Infrastructure: The D.C. background study must include an asset management plan (A.M.P.) that deals with all assets proposed to be funded, in whole or in part, by D.C.s. The A.M.P. must show that the assets are financially sustainable over their full lifecycle.

    c. 60-day Circulation Period: The D.C. background study must be released to the public at least 60 days prior to passage of the D.C. by-law.

4. Further, changes to the D.C.A. were introduced through four bills passed in the Ontario legislature: Bill 108, Bill 138, Bill 197 and Bill 213. The following provides a brief summary of the recent changes.

    <u>Bill 108: More Homes, More Choice: Ontario's Housing Supply Action Plan</u>

    In May 2019, the Province introduced Bill 108, More Homes, More Choice Act, 2019 which would make changes to the current D.C. legislation. The Bill was passed and given Royal Assent on June 6, 2019. While the legislation has been passed, much of the detailed changes were to be implemented by Regulation which were not yet passed. The following items are currently in effect:

    a. Effective January 1, 2020, rental housing and institutional developments shall pay D.C.s in six (6) equal annual payments commencing at first occupancy. Non-profit housing developments shall pay D.C.s in 21 equal annual payments. Interest may be charged on the installments, and any unpaid amounts inclusive of interest payable shall be added to the property tax roll and collected in the same manner as taxes.

    b. Effective January 1, 2020, the D.C. amount for all developments occurring within two years of a Site Plan or Zoning By-law Amendment planning

approval (for applications made after January 1, 2020), shall be determined based on the D.C. by-law in effect on the day of Site Plan or Zoning By-law Amendment application.

Other key elements of the changes that were not proclaimed and were dealt with subsequently through Bill 197 are provided below:

- The D.C. would be refined to only allow for the following services to remain within the D.C.: water, wastewater, storm water, roads, fire, policing, ambulance, waste diversion, parks development, recreation, public libraries, long-term care, public health.
- The mandatory 10% deduction would be removed for all services that remain eligible in the D.C.
- A new community benefits charge (C.B.C.) would be introduced to include formerly eligible D.C. services that are not included in the above listing, parkland dedication and bonus zoning contributions.

Bill 138: Plan to Build Ontario Together Act, 2019

On November 6, 2019, the Province released Bill 138 which provided further amendments to the D.C.A. and Planning Act. This Bill received Royal Assent on December 10, 2019 and was proclaimed which resulted in sections related to the D.C.A. (schedule 10) becoming effective on January 1, 2020. With respect to the D.C.A., this Act removed installment payments for commercial and industrial developments that were originally identified in Bill 108.

Bill 197: COVID-19 Economic Recovery Act, 2020

In March 2020, Canada was impacted by the COVID-19 global pandemic. As a result, the economy was put into a state of emergency in an effort to slow the spread of the virus. In response, the Province tabled legislation on July 8, 2020 which amended a number of Acts, including the D.C.A. and the Planning Act. With this Bill, many changes proposed in Bill 108 have now been revised. With respect to the above noted changes from Bill 108, the following changes are provided in Bill 197:

- Eligible Services: The list of eligible services for the D.C. has now been expanded to include most services eligible under the D.C.A. prior to Bill 108.
- Mandatory 10% Deduction: The mandatory 10% deduction is removed (consistent with Bill 108). This applies to all D.C.-eligible services.
- Community Benefits Charges: a municipality may, by by-law impose a C.B.C. to pay for the capital costs for formerly-eligible D.C. services in addition to parkland dedication and bonus zoning contributions. The City is reviewing the need for a C.B.C. by-law and may bring a spearate report forward subsequent to the D.C. study.

Bill 213: Better for People, Smarter for Business Act, 2020

On December 8, 2020, Bill 213 received Royal Assent. One of the changes of the Bill that took effect upon Royal Assent included amending the Ministry of Training, Colleges and Universities Act by introducing a new section that would exempt the payment of D.C.s for developments of land intended for use by a university that receives operating funds from the Government.

These changes to the D.C.A. were proclaimed on September 18, 2020 and are further discussed in Section 1.4 of this report.

5. The growth forecast (Chapter 2) on which the City-wide D.C. is based, projects the following population, housing and non-residential floor area for the 10-year period (2021 to 2030), 21-year period (2021-2041) and urban 21-year buildout (2021 to 2041), for the purposes of calculating the City-wide D.C.s.

Table ES-1
Summary of the Growth Forecast by Forecast Period for Anticipated Residential and Non-Residential Growth within the City

Measure	10 Year Forecast 2021-2030	21 Year Forecast 2021-2041	Urban 21 Year Forecast 2021-2041
(Net) Population Increase	10,213	25,979	25,935
Residential Unit Increase	5,669	13,489	13,469
Non-Residential Gross Floor Area Increase (ft^2)	3,487,300	7,993,400	7,764,000
Employment Increase	5,186	12,007	11,896

Source: Watson & Associates Economists Ltd. Forecast 2021

6. The City is undertaking a D.C. public process and anticipates passing a new by-law for eligible services. The mandatory public meeting has been set for July 12, 2021 with adoption of the by-law anticipated for September 13, 2021.

7. This report has undertaken a calculation of charges based on future identified needs (presented in Schedule ES-3 for residential and non-residential). Charges have been provided on a City-wide basis for all services except for water, wastewater and stormwater services, which have been provided on an urban-area basis. The corresponding single detached unit charge for full services is $10,141. The non-residential charge for full services is $22.01 per sq.m. ($2.05 per sq.ft.) of building area. These rates are submitted to Council for its consideration.

8. 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-law. This calculation is provided by service and is presented in Table 5-4. A summary of these costs is provided below:

Table ES-2
Summary of the Gross Capital Cost to be Recovered over the Life of the By-law

Total gross expenditures planned over the next five years	$75,479,450
Less:	
Benefit to existing development	$46,218,322
Post planning period benefit	$ 303,900
Ineligible re: Level of Service	$ 94,352
Grants, subsidies and other contributions	$ 6,844,900
Net Costs to be recovered from development charges	**$22,017,976**

This suggests that for the non-D.C. cost over the five-year D.C. by-law (benefit to existing development, ineligible services, and the grants, subsidies and other contributions), $53.16 million (or an annual amount of $10.63 million) will need to be contributed from taxes and rates or other sources. With respect to the post period benefit amount of $0.3 million, it will be included in subsequent D.C. study updates to reflect the portion of capital that benefits growth in the post period D.C. forecasts.

Based on the above table, the City plans to spend $75.48 million over the next five years, of which $22.02 million (29%) is included in the D.C. calculation. Of

this net amount, $16.09 million is recoverable from residential development and $5.92 million from non-residential development. It is noted also that any exemptions or reductions in the charges would reduce this recovery further.

9. Considerations by Council – The background study represents the service needs arising from residential and non-residential growth over the forecast periods.

   The following services are calculated based on an urban 21-year forecast:

   - Stormwater Services – Channels, Drainage and Ponds;
   - Wastewater Services – Collection System;
   - Water Services – Distribution System.

   The following services are calculated based on a City-wide 21-year forecast:

   - Services Related to a Highway; and
   - Fire Protection Services.

   The remaining services are calculated based on a City-wide 10-year forecast:

   - Transit Services;
   - Parks and Recreation Services; and
   - Library Services.

   In addition, classes of services have been established for the following:

   - Public Works (Facilities, Vehicles & Equipment): calculated based on a City-wide 10-year forecast; and
   - Growth Studies: calculated based on a City-wide 10-year forecast.

   Council will consider the findings and recommendations provided in the report and, in conjunction with public input, approve such policies and rates it deems appropriate. These directions will refine the draft D.C. by-law which is appended in Appendix H. These decisions may include:

   - adopting the charges and policies recommended herein;
   - considering additional exemptions to the by-law; and

- considering reductions in the charge by class of development (obtained by removing certain services 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 development charges from other development, any such decision would require the consideration of an alternative (i.e. non-D.C.) funding source provided by the City.

Table ES-3
Schedule of Development Charges

Service/Class of Service	RESIDENTIAL					NON-RESIDENTIAL	
	Single and Semi-Detached Dwelling	Other Multiples	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)	(per sq.m. of Gross Floor Area)
Municipal Wide Services/Class of Services:							
Services Related to a Highway	620	455	450	308	233	0.34	3.66
Public Works	2	1	1	1	1	0.00	0.00
Transit Services	674	494	489	334	253	0.39	4.20
Fire Protection Services	524	384	380	260	197	0.28	3.01
Parks and Recreation Services	6,682	4,902	4,852	3,316	2,507	0.41	4.36
Library Services	755	554	548	375	283	0.04	0.43
Growth Studies	608	446	441	302	228	0.35	3.77
Total Municipal Wide Services/Class of Services	**9,865**	**7,236**	**7,161**	**4,896**	**3,702**	**1.81**	**19.43**
Urban Services							
Stormwater Drainage and Control Services	109	80	79	54	41	0.15	1.61
Wastewater Services	132	97	96	66	50	0.07	0.75
Water Services	35	26	25	17	13	0.02	0.22
Total Urban Services	**276**	**203**	**200**	**137**	**104**	**0.24**	**2.58**
GRAND TOTAL RURAL AREA	**9,865**	**7,236**	**7,161**	**4,896**	**3,702**	**1.81**	**19.43**
GRAND TOTAL URBAN AREA	**10,141**	**7,439**	**7,361**	**5,033**	**3,806**	**2.05**	**22.01**

Report

Chapter 1
Introduction

1. Introduction

1.1 Purpose of this Document

This background study has been prepared pursuant to the requirements of the D.C.A. (s. 10) and, accordingly, recommends D.C.s and policies for the City of St. Catharines.

The City retained Watson & Associates Economists Ltd. (Watson), to undertake the D.C. study process throughout 2020 and 2021. Watson worked with City staff preparing the D.C. analysis and policy recommendations.

This D.C. background study, containing the proposed D.C. by-law, will be distributed to members of the public in order to provide interested parties with sufficient background information on the legislation, the study's recommendations, and an outline of the basis for these recommendations.

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 3. It also addresses the requirement for "rules" (contained in Chapter 6) and the proposed by-law to be made available as part of the approval process (included as Appendix H).

In addition, the report is designed to set out sufficient background on the legislation (Chapter 3) and the growth anticipated within the City (Chapter 2), to make the exercise understandable to those who are involved.

Finally, it addresses post-adoption implementation requirements (Chapter 7) 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 charge. A full discussion of the statutory requirements for the preparation of a background study and calculation of a D.C. is provided herein.

1.2 Summary of the Process

The public meeting required under section 12 of the *Development Charges Act, 1997*, as amended (D.C.A.), has been scheduled for July 12, 2021. Its purpose is to present

the study to the public and to solicit public input. The meeting is also being held to answer any questions regarding the study's purpose, methodology and the proposed modifications to the City's D.C.s.

In accordance with the legislation, the background study and proposed D.C. by-law will be available for public review on June 2, 2021.

The process to be followed in finalizing the report and recommendations includes:

- consideration of responses received prior to, at, or immediately following the public meeting;
- refinements to the report, 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 for the City of St. Catharines

1. Data collection, staff review, engineering work, D.C. calculations and policy work	June 2020 to April 2021
2. Development Charges Task Force Meetings	March 24 & April 27, 2021
3. Council Workshop	October 5, 2020
4. Stakeholder Meeting	February 25, 2021
5. Public release of final D.C. Background study and proposed by-law	June 2, 2021
6. Public meeting advertisement placed in newspaper(s)	Prior to June 22, 2021
7. Public meeting of Council	July 12, 2021
8. Council considers adoption of background study and passage of by-law	September 13, 2021
9. Newspaper notice given of by-law passage	By 20 days after passage
10. Last day for by-law appeal	40 days after passage
11. City makes pamphlet available (where by-law not appealed)	By 60 days after in force date

1.3 Changes to the D.C.A.: Bill 73 – Smart Growth for our Communities Act, 2015

With the amendment of the D.C.A. (as a result of Bill 73 and O. Reg. 428/15), there are a number of areas that must be addressed to ensure that the City is in compliance with the D.C.A., as amended. The following provides an explanation of the changes to the Act that affect the City's background study and how they have been dealt with to ensure compliance with the amended legislation.

1.3.1 Area Rating

Bill 73 has introduced two new sections where Council must consider the use of area-specific charges:

1) Section 2 (9) of the Act now requires a municipality to implement area-specific D.C.s for either specific services that are prescribed and/or for specific municipalities that are to be regulated. (Note that at this time, no municipalities or services are prescribed by the Regulations.);

2) Section 10 (2) c.1 of the D.C.A. requires that, "the development charges background study shall include consideration of the use of more than one development charge by-law to reflect different needs for services in different areas."

In regard to the first item, there are no services or specific municipalities identified in the regulations that must be area-rated. The second item requires Council to consider the use of area rating.

1.3.2 Asset Management Plan for New Infrastructure

The new legislation now requires that a D.C. background study must include an asset management plan (s. 10 (2) c.2). The asset management plan (A.M.P.) must deal with all assets that are proposed to be funded, in whole or in part, by D.C.s. The current regulations provide very extensive and specific requirements for the A.M.P. related to transit services; however, they are silent with respect to how the A.M.P. is to be provided for all other services. As part of any A.M.P., the examination should be consistent with the municipality's existing assumptions, approaches, and policies on asset management planning. This examination may include both qualitative and

quantitative measures such as examining the annual future lifecycle contributions needs (discussed further in Appendix F of this report).

1.3.3 60-Day Circulation of D.C. Background Study

Previously, the legislation required that a D.C. background study be made available to the public at least two weeks prior to the public meeting. The amended legislation now provides that the D.C. background study must be made available to the public (including posting on the municipal website) at least 60 days prior to passage of the D.C. by-law. No other changes were made to timing requirements for such things as notice of the public meeting and notice of by-law passage.

This D.C. study is being provided to the public on June 2, 2021 to ensure the new requirement for release of the study is met.

1.3.4 Timing of Collection of D.C.s

The D.C.A. has been refined by Bill 73 to require that D.C.s are collected at the time of the first building permit. There may be instances where several building permits are to be issued and either the size of the development or the uses will not be definable at the time of the first building permit. In these instances, the City may enter into a delayed payment agreement in order to capture the full development.

1.3.5 Transit

As per O.Reg. 428/15 and O.Reg. 82/98, Transit services now require a revised form of calculation. The following changes and requirements are as follows:

- 10% mandatory deduction from the growth-related costs removed;
- Methodology for determining the “planned level of service” set out in the regulations; and
- Methodology requires ridership forecasts and ridership capacity for all modes of transit over the 10 years, identification of excess capacity which exists at the end of 10 years, identification of whether new ridership is from existing or planned development.

To this end, Watson has retained Dillon Consulting Ltd. to undertake the Transit forecast as per the requirements of O.Reg. 428/15. The findings of their work are in Appendix G to this study.

In addition to the revisions above, a detailed evaluation for Transit asset management is required and consist of the following:

- Identifying the state of local infrastructure for the existing assets;
- Definition of service levels through time frames and provides performance measures;
- Provides an asset management strategy and a financial strategy for existing and future assets;
- Assessment of options to achieve level of service;
- Review of procurement measures to achieve level of service; and
- Review of risks associated with strategies.

The asset management requirements are provided in Appendix F.

1.3.6 Other Changes

It is also noted that a number of other changes were made through Bill 73 and O. Reg. 428/15, including not having the ability for collection of additional levies. Due to this, the City's local service policy has been developed to provide transparency on capital infrastructure that are to be included in the City's D.C. and those costs that would be the responsibility of the developing landowners through their development agreements.

1.4 Further Changes to the D.C.A.: Bill 108, 138, 197, and 213

1.4.1 Bill 108: More Homes, More Choice Act – An Act to Amend Various Statutes with Respect to Housing, Other Development, and Various Matters

On May 2, 2019, the Province introduced Bill 108, which proposed changes to the D.C.A. The Bill has been introduced as part of the Province's *"More Homes, More Choice: Ontario's Housing Supply Action Plan"*. The Bill received Royal Assent on June 6, 2019.

While having received royal assent, many of the amendments to the D.C.A. would not come into effect until they are proclaimed by the Lieutenant Governor (many of these changes were revised through Bill 197). At the time of writing, the following provisions have been proclaimed:

- Effective January 1, 2020, rental housing and institutional developments will pay D.C.s in six equal annual payments commencing at occupancy. Non-profit housing developments will pay D.C.s in 21 equal annual payments. Interest may be charged on the instalments, and any unpaid amounts may be added to the property and collected as taxes.
- Effective January 1, 2020 the D.C. amount for all developments occurring within 2 years of a Site Plan or Zoning By-law Amendment planning approval (for application submitted after this section is proclaimed), shall be determined based on the D.C. in effect on the day of Site Plan or Zoning By-law Amendment application. If the development is not proceeding via these planning approvals, then the amount is determined at the earlier of the date of issuance of a building permit or occupancy, as per the D.C.A.

On February 28, 2020, the Province released updated draft regulations related to the D.C.A. and the Planning Act. A summary of these changes to take effect upon proclamation by the Lieutenant Governor is provided below:

Changes to Eligible Services – Prior to Bill 108, the D.C.A. provided a list of ineligible services whereby municipalities could include growth related costs for any service that was not listed. With Bill 108, the changes to the D.C.A. would now specifically list the services that are eligible for inclusion in the by-law. Further, the initial list of eligible services under Bill 108 was limited to "hard services", with the "soft services" being removed from the D.C.A. These services would be considered as part of a new community benefits charge (discussed below) imposed under the Planning Act. As noted in the next section this list of services has been amended through Bill 197.

Mandatory 10% deduction – The amending legislation would remove the mandatory 10% deduction for all services that remain eligible under the D.C.A.

Remaining Services to be Included in a New Community Benefits Charge (C.B.C.) Under the Planning Act – It is proposed that a municipality may, by by-law, impose a C.B.C. against land to pay for the capital costs of facilities, services and matters required because of development or redevelopment in the area to which the by-law applies. The C.B.C. is proposed to include formerly eligible D.C. services that are not included in the above listing, in addition to parkland dedication and bonus zoning contributions.

1.4.1 Bill 138: Plan to Build Ontario Together Act, 2019

On November 6, 2019, the Province release Bill 138 which provided further amendments to the D.C.A. and Planning Act. This Bill received Royal Assent on December 10, 2019 and was proclaimed which resulted in sections related to the D.C.A. (schedule 10) becoming effective on January 1, 2020. The amendments to the D.C.A. included removal of instalment payments for commercial and industrial developments that were originally included in Bill 108.

1.4.2 Bill 197: COVID-19 Economic Recovery Act

In response to the global pandemic that began affecting Ontario in early 2020, the Province released Bill 197 which provided amendments to a number of Acts, including the D.C.A. and Planning Act. This Bill also revised some of the proposed changes identified in Bill 108. Bill 197 was tabled on July 8, 2020, received Royal Assent on July 21, 2020, and was proclaimed on September 18, 2020. The following provides a summary of the changes:

1.4.2.1 D.C. Related Changes

List of D.C. Eligible Services

- As noted above, under Bill 108 some services were to be included under the D.C.A. and some would be included under the C.B.C. authority. Bill 197, however, revised this proposed change and has included all services (with some exceptions) under the D.C.A. These services are as follows:
    a. Water supply services, including distribution and treatment services.
    b. Wastewater services, including sewers and treatment services.
    c. Storm water drainage and control services.
    d. Services related to a highway.
    e. Electrical power services.
    f. Toronto-York subway extension.
    g. Transit services.
    h. Waste diversion services.
    i. Policing services.
    j. Fire protection services.
    k. Ambulance services.
    l. Library services

m. Long-term Care services
n. Parks and Recreation services, but not the acquisition of land for parks.
o. Public Health services
p. Childcare and early years services.
q. Housing services.
r. Provincial Offences Act services.
s. Services related to emergency preparedness.
t. Services related to airports, but only in the Regional Municipality of Waterloo.
u. Additional services as prescribed.

Classes of Services – D.C.

Pre-Bill 108/197 legislation (i.e. D.C.A., 1997) allowed for categories of services to be grouped together into a minimum of two categories (90% and 100% services).

The Act (as amended) repeals and replaces the above with the four following subsections:

- A D.C. by-law may provide for any eligible service or capital cost related to any eligible service to be included in a class, set out in the by-law.
- A class may be composed of any number or combination of services and may include parts or portions of the eligible services or parts or portions of the capital costs in respect of those services.
- A D.C. by-law may provide for a class consisting of studies in respect of any eligible service whose capital costs are described in paragraphs 5 and 6 of s. 5 of the D.C.A.
- A class of service set out in the D.C. by-law is deemed to be a single service with respect to reserve funds, use of monies, and credits.

As well, the removal of 10% deduction for soft services under Bill 108 has been maintained.

Note: an initial consideration of “class” appears to mean any group of services.

10-Year Planning Horizon

- The 10-year planning horizon has been removed for all services except transit.

1.4.2.2 C.B.C. Related Changes

C.B.C. Eligibility

- The C.B.C. is limited to lower-tier and single tier municipalities, whereas upper-tier municipalities will not be allowed to impose this charge.
- O. Reg. 509/20 was filed on September 18, 2020. This regulation provides for the following:
    a. A maximum rate will be set as a percentage of the market value of the land the day before building permit issuance. The maximum rate is set at 4%. The C.B.C may only be imposed on developing or redeveloping buildings which have a minimum height of five stories and contain no less than 10 residential units.
    b. Bill 197 states that before passing a C.B.C. by-law, the municipality shall prepare a C.B.C. strategy that (a) identifies the facilities, services, and matters that will be funded with C.B.C.s; and (b) complies with any prescribed requirements.
    c. Only one C.B.C. by-law may be in effect in a local municipality at a time.

1.4.2.3 Combined D.C. and C.B.C. Impacts

D.C. vs. C.B.C. Capital Cost

- A C.B.C. may be imposed with respect to the services listed in s. 2 (4) of the D.C.A. (eligible services), "provided that the capital costs that are intended to be funded by the community benefits charge are not capital costs that are intended to be funded under a development charge by-law."

Transition – D.C. and C.B.C.

- The specified date for municipalities to transition to the D.C. and C.B.C. is two years after Schedules 3 and 17 of the COVID-19 Economic Recovery Act comes into force (i.e. September 18, 2022).
- Generally, for existing reserve funds (related to D.C. services that will be ineligible):
    a. If a C.B.C. is passed, the funds are transferred to the C.B.C. special account;
    b. If no C.B.C. is passed, the funds are moved to a general reserve fund for the same purpose;

c. If a C.B.C. is passed subsequent to moving funds to a general reserve fund, those monies are then moved again to the C.B.C. special account.

- For reserve funds established under s. 37 of the Planning Act (e.g. bonus zoning)
    a. If a C.B.C. is passed, the funds are transferred to the C.B.C. special account;
    b. If no C.B.C. is passed, the funds are moved to a general reserve fund for the same purpose;
    c. If a C.B.C. is passed subsequent to moving funds to a general reserve fund, those monies are then moved again to the C.B.C. special account.

If a municipality passes a C.B.C. by-law, any existing D.C. credits a landowner may retain may be used towards payment of that landowner's C.B.C.

- As a result of the passage of Bill 197, and subsequent proclamation on September 18, 2020, this report has provided the D.C. calculations without the 10% mandatory deduction.

At this time, the City is still reviewing the need to develop a C.B.C. therefore, this report does not address any C.B.C. charges.

1.4.3 Bill 213: Better for People, Smarter for Business Act, 2020

On December 8, 2020, Bill 213 received Royal Assent. One of the changes of the Bill that took effect upon Royal Assent included amending the Ministry of Training, Colleges and Universities Act by introducing a new section that would exempt the payment of D.C.s for developments of land intended for use by a university that receives operating funds from the Government.

- Due to this, an exemption will be provided in the proposed D.C. by-law.

Chapter 2
Anticipated Development in the City of St. Catharines

2. Anticipated Development in the City of St. Catharines

2.1 Requirement of the Act

Chapter 3 provides the methodology for calculating a D.C. as per the D.C.A. Figure 3-1 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 Section 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."

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

2.2 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:

- Niagara Region Municipal Comprehensive Review (M.C.R.) - Draft Updated Forecasts and Local Growth Allocations Memo, Hemson Consulting Ltd., July 27, 2018;
- Niagara Region Municipal Comprehensive - Review and Update of M.C.R. Forecast Allocations and Land Needs Assessment Results, Hemson Consulting Ltd., September 9, 2019;
- City of St. Catharines traffic zone population, housing and employment forecast, provided by the City of St. Catharines, June 2020;
- 2006, 2011 and 2016 population, household, and employment Census data;
- Historical residential and non-residential building permit data over the 2011 to 2020 period;
- Residential supply opportunities as provided by the City of St. Catharines; and

- Discussions with City staff regarding anticipated residential and non-residential development in the City of St. Catharines.

2.3 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 2-1. 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 2-1 below, and Schedule 1 in Appendix A.

As identified in Table 2-1 and Appendix A, *Schedule 1*, population in St. Catharines is anticipated to reach approximately 148,100 by mid-2031 and 163,870 by mid-2041 resulting in an increase of approximately 10,210 and 25,980 persons, respectively.[1]

[1] The population figures used in the calculation of the 2021 D.C. exclude the net Census undercount, which is estimated at approximately 2.5%.

Figure 2-1
Population and Household Forecast Model

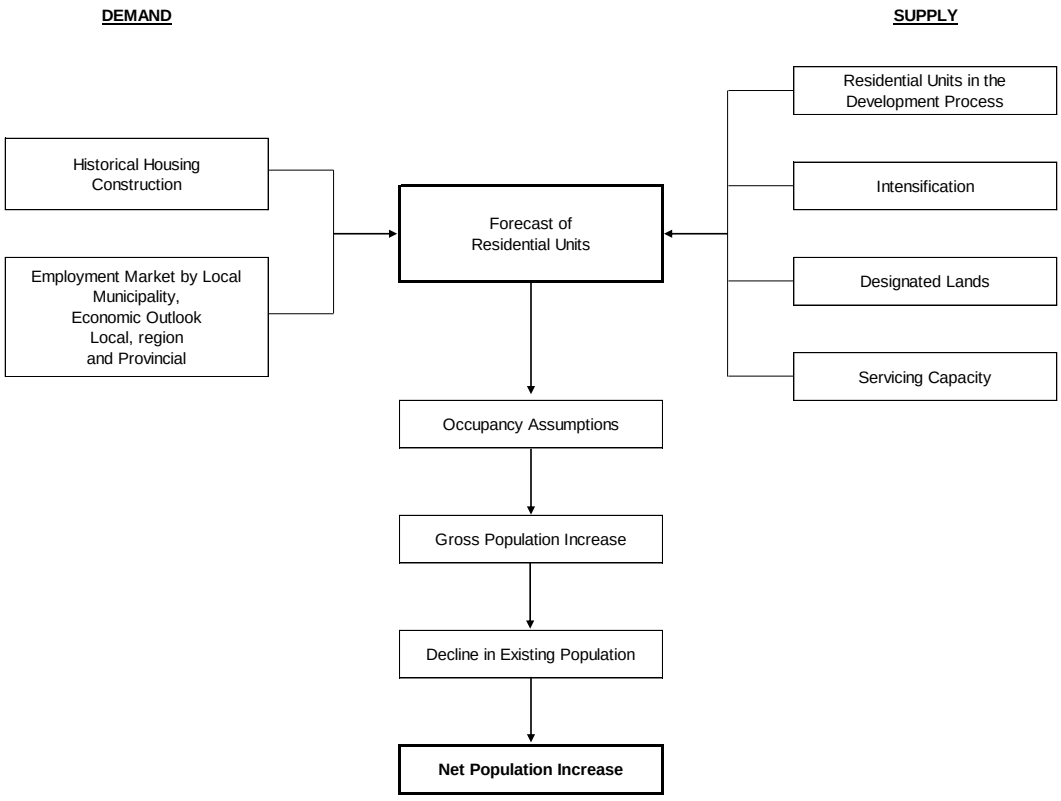


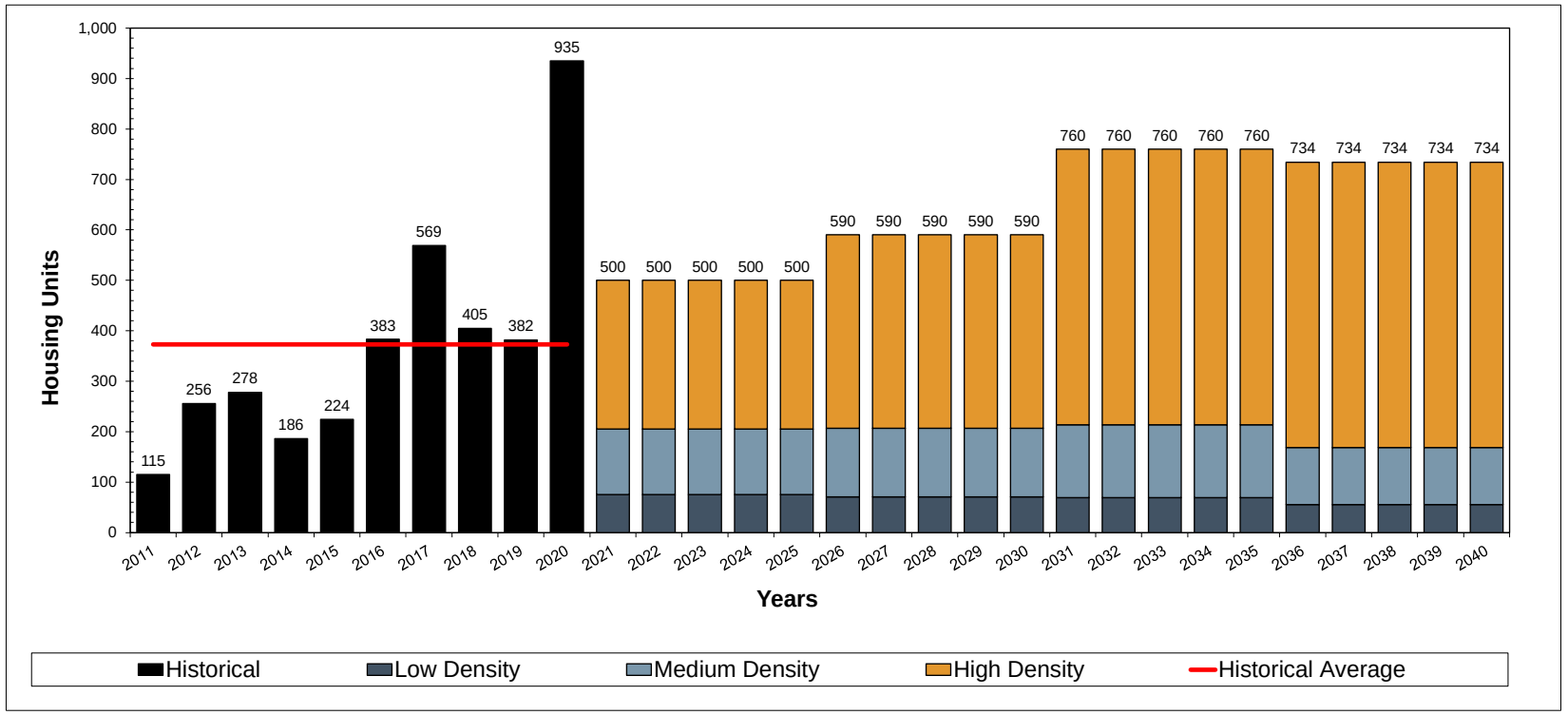
Table 2-1
City of St. Catharines
Residential Growth Forecast Summary

	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 2006*	135,330	131,989	2,359	129,630	34,685	6,455	13,185	415	54,740	2,145	2.411
	Mid 2011	134,720	131,400	2,630	128,770	35,465	6,539	13,137	278	55,419	2,391	2.371
	Mid 2016	136,480	133,113	3,263	129,850	35,670	6,995	13,905	305	56,875	2,966	2.340
Forecast	*Mid 2021*	141,370	137,886	3,390	134,496	36,110	7,848	15,286	305	59,549	3,082	2.316
	Mid 2031	151,850	148,099	3,630	144,469	36,839	9,177	18,679	305	64,999	3,300	2.278
	Mid 2041	168,010	163,865	4,017	159,848	37,459	10,469	24,235	305	72,469	3,652	2.261
Incremental	**Mid 2006 - Mid 2011**	**-610**	**-589**	**271**	**-860**	**780**	**84**	**-48**	**-137**	**679**	**246**	
	Mid 2011 - Mid 2016	**1,760**	**1,713**	**633**	**1,080**	**205**	**456**	**768**	**27**	**1,456**	**575**	
	Mid 2016 - Mid 2021	**4,890**	**4,773**	**127**	**4,646**	**440**	**853**	**1,381**	**0**	**2,674**	**116**	
	Mid 2021 - Mid 2031	**10,480**	**10,213**	**240**	**9,973**	**729**	**1,329**	**3,393**	**0**	**5,450**	**218**	
	Mid 2021 - Mid 2041	**26,640**	**25,979**	**627**	**25,352**	**1,349**	**2,621**	**8,949**	**0**	**12,920**	**570**	

Source: Derived from Niagara Region Municipal Comprehensive Review – Draft Updated Forecasts and Local Growth Allocations (July 2018, Hemson Memo) forecast for the City of St. Catharines, Niagara Region Municipal Comprehensive Review - Review and Update of MCR Forecast Allocations and Land Needs Assessment Results (September 2019, Hemson Memo) forecast for the City of St. Catharines, and City of St. Catharines 2016 to 2041 Traffic Zone Population, Housing and Employment Forecast (June 2020, City of St. Catharines) by Watson & Associates Economists Ltd., 2021.

[1] Census undercount estimated at approximately 2.5%. Note: Population including the undercount has been rounded.
[2] Includes townhouses and apartments in duplexes.
[3] Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Figure 2-2
City of St. Catharines
Residential Growth Forecast Summary



Source: Historical housing activity derived from City of St. Catharines building permit data, 2011-2020.
[1] Growth forecast represents calendar year.

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

1. Housing Unit Mix (Appendix A – Schedules 1 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 and discussions with City staff regarding anticipated development trends for St. Catharines.
    - Based on the above indicators, the 2021 to 2041 household growth forecast for the City is comprised of a unit mix of 10.4% low density units (single detached and semi-detached), 20.3% medium density (multiples except apartments) and 69.3% high density (bachelor, 1-bedroom and 2-bedroom apartments).

2. Geographic Location of Residential Development (Appendix A – Schedule 2)

    - Schedule 2 summarizes the anticipated amount, type, and location of development by servicing area for the City of St. Catharines.
    - In accordance with forecast demand and available land supply, the amount and percentage of forecast housing growth between 2021 and 2041 by development location is summarized below.

Development Location	Amount of Housing Growth, 2021 to 2041	Percentage of Housing Growth, 2021 to 2041
Urban	12,900	99.85%
Rural	20	0.15%
City Total	***12,920***	***100%***

Note: Figures may not add precisely due to rounding.

3. Planning Period

- Short- 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.

4. Population in New Housing Units (Appendix A - Schedules 3, 4 and 5)

- The number of housing units to be constructed by 2041 in the City of St. Catharines over the forecast period is presented in Figure 2 2. Over the 2021 to 2041 forecast period, the City is anticipated to average 646 new housing units per year.
- Institutional population[1] is anticipated to increase by approximately 627 people between 2021 to 2041.
- Population in new units is derived from Schedules 3, 4, and 5, 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 8 summarizes the average P.P.U. assumed for new housing units by age and type of dwelling based on Statistics Canada 2016 custom Census data for the City of St. Catharines. The total calculated 25-year adjusted average P.P.U.s by dwelling type are as follows:

[1] 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.

a. Low density: 2.932
b. Medium density: 2.151
c. High density:[1] 1.866

5. Existing Units and Population Change (Appendix A - Schedules 3, 4 and 5)

- Existing households for mid-2021 are based on the 2016 Census households, plus estimated residential units constructed between mid-2016 and mid-2021, assuming a 6-month lag between construction and occupancy (see Schedule 3).
- The decline in average occupancy levels for existing housing units is calculated in Schedules 3 through 5, by aging the existing population over the forecast period. The forecast population decline in existing households over the 2021 to 2041 forecast period is approximately 940.

6. Employment (Appendix A, Schedules 9a, 9b, 9c)

- 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.
- 2016 employment data (place of work) for the City of St. Catharines is outlined in Schedule 9a. The 2016 employment base is comprised of the following sectors:
    a. 650 primary (1%);
    b. 3,570 work at home employment (7%);
    c. 10,078 industrial (18%);
    d. 23,898 commercial/population related (44%); and
    e. 16,655 institutional (30%).
- The 2016 employment by usual place of work, including work at home, is 54,850. An additional 7,285 employees have been identified for the City in 2016 that have no fixed place of work (N.F.P.O.W.). [2]

[1] Includes bachelor, 1-bedroom and 2- or more bedroom apartments.
[2] No fixed place of work is defined by Statistics Canada 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.

- Total employment, including work at home and N.F.P.O.W. for the City is anticipated to reach approximately 71,550 by Mid-2031 and 80,240 by Mid-2041. This represents an employment increase of approximately 6,790 for the 10-year forecast period and 15,480 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 gross floor area (G.F.A.) calculation.
- Total employment for the City of St. Catharines (excluding work at home and N.F.P.O.W. employment) is anticipated to reach approximately 58,540 by Mid-2031 and 65,540 by Mid-2041. This represents an employment increase of approximately 5,300 for the 10-year forecast period and 12,300 for the longer-term forecast period. [1]

7. 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:
    a. 4,000 sq.ft. per employee for primary;
    b. 1,110 sq.ft. per employee for industrial;
    c. 450 sq.ft. per employee for commercial/population-related; and
    d. 680 sq.ft. per employee for institutional employment.
- The City-wide incremental Gross Floor Area (G.F.A.) is anticipated to increase by 3.5 million sq.ft. over the 10-year forecast period and 8.0 million sq.ft. over the longer-term forecast period.

[1] 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 9b (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 58,370 by early-2031 and 65,190 by mid-2041.

- In terms of percentage growth, the 2021 to 2041 incremental G.F.A. forecast by sector is broken down as follows:
    a. primary – 2%;
    b. industrial – 34%;
    c. commercial/population-related – 32%; and
    d. institutional – 32%.

8. Geography of Non-Residential Development (Appendix A, Schedule 9c)

- Schedule 9c summarizes the anticipated amount, type and location of non-residential development by servicing area for the City of St. Catharines by area.
- The amount and percentage of forecast total non-residential growth between 2021 and 2041 by development location is summarized below.

Development Location	Amount of Non-Residential G.F.A., 2021 to 2041	Percentage of Non-Residential G.F.A., 2021 to 2041
Urban	7.85 million	98%
Rural	0.15 million	2%
City Total	***8.00 million***	***100%***

Chapter 3
The Approach to the Calculation of the Charge

3. The Approach to the Calculation of the Charge

3.1 Introduction

This chapter addresses the requirements of 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.

3.2 Services Potentially Involved

Table 3-1 lists the full range of municipal service categories that are provided within the City.

A number of these services are defined in s. 2 (4) of the D.C.A. as being ineligible for inclusion in D.C.s. These are shown as "ineligible" on Table 3-1. Two ineligible costs defined in s. 5 (3) of the D.C.A. are "computer equipment" and "rolling stock with an estimated useful life of (less than) seven years." In addition, local roads are covered separately under subdivision agreements and related means (as are other local services). Services which are potentially eligible for inclusion in the City's D.C. are indicated with a "Yes."

3.3 Increase in the 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. 5 (1) 3, which requires that City 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 3-1
The Process of Calculating a Development Charge under the Act
that must be followed

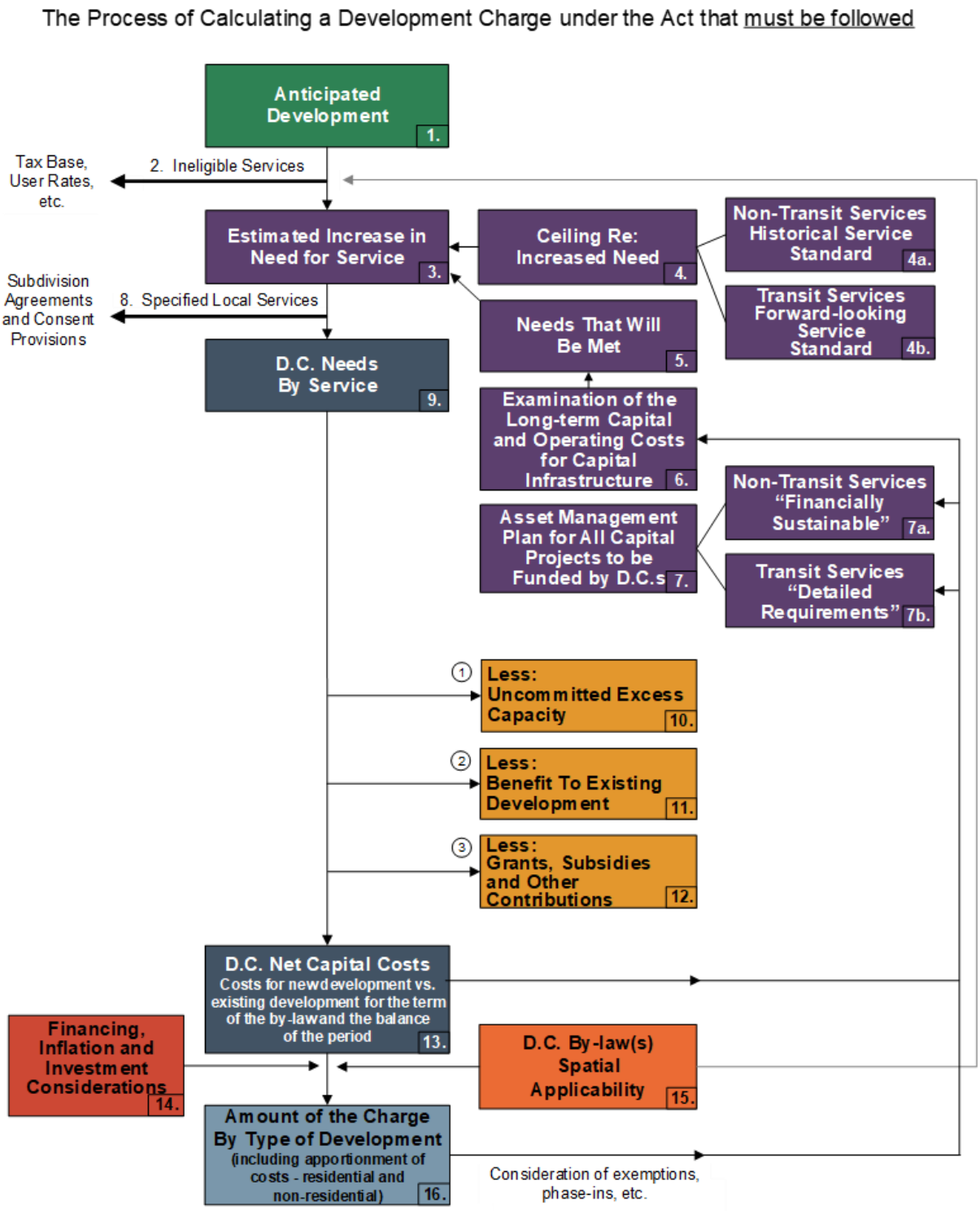


Table 3-1
Categories of Municipal Services to be Addressed as Part of the Calculation

Eligibility for Inclusion in the D.C. Calculation	Description
Yes	Municipality provides the service – service has been included in the D.C. calculation.
No	Municipality provides the service – service has not been included in the D.C. calculation.
n/a	Municipality does not provide the service.
Ineligible	Service is ineligible for inclusion in the D.C. calculation.

Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
1. Services Related to a Highway	Yes	1.1 Arterial roads	100
	Yes	1.2 Collector roads	100
	Yes	1.3 Bridges, culverts and roundabouts	100
	No	1.4 Local municipal roads	0
	Yes	1.5 Traffic signals	100
	Yes	1.6 Sidewalks and streetlights	100
	Yes	1.7 Active transportation	100
2. Other Transportation Services	Yes	2.1 Transit vehicles[1] & facilities	100
	Yes	2.2 Other transit infrastructure	100
	Ineligible	2.3 Municipal parking spaces - indoor	0
	Ineligible	2.4 Municipal parking spaces - outdoor	0
	Yes	2.5 Works yards	100
	Yes	2.6 Rolling stock[1]	100
	Ineligible	2.7 Ferries	100
	Ineligible	2.8 Airport	100*

[1]with 7+ year lifetime
*Airports only eligible for the Region of Waterloo

Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
3. Stormwater Drainage and Control Services	Yes	3.1 Main channels and drainage	100
	No	trunks	100
	No	3.2 Channel connections	100
	No	3.3 Retention/detention ponds	100
		3.4 Monitoring Programs	
4. Fire Protection Services	Yes	4.1 Fire stations	100
	Yes	4.2 Fire pumpers, tankers, aerials, and rescue vehicles, etc.[1]	100
	Yes	4.3 Small equipment and gear	100
5. Parks Services (i.e. Parks and Open Space)	Ineligible	5.1 Acquisition of land for parks, woodlots, and	0
	Yes	E.S.A.s	100
	Yes	5.2 Development of area municipal parks	100
	Yes	5.3 Development of district parks	100
	Yes	5.4 Development of municipal-wide parks	100
	Yes	5.5 Development of special purpose parks	100
		5.6 Parks rolling stock[1] and yards	
6. Recreation Services	Yes	6.1 Arenas, pools, fitness facilities, community centres, etc.	100
	Yes	6.2 Soccer fields, cricket pitches, multi-purposes fields, ball diamonds.	100
	Yes	6.3 Recreation vehicles and equipment[1]	100
	Yes	6.4 Recreation Land	100
7. Library Services	Yes	7.1 Public library space (incl. furniture and equipment)	100
	Yes	7.2 Library vehicles[1]	100
	Yes	7.3 Library materials	100

[1]with 7+ year lifetime

Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
8. Emergency Preparedness Services	No	8.1 Facility space (incl. furniture and equipment)	100
	No	8.2 Vehicles[1]	100
	No	8.3 Equipment	100
9. Electrical Power Services	Ineligible	9.1 Electrical substations	0
	Ineligible	9.2 Electrical distribution system	0
	Ineligible	9.3 Electrical system rolling stock	0
10. Provision of Cultural, Entertainment and Tourism Facilities and Convention Centres	Ineligible	10.1 Cultural space (e.g. art galleries, museums, and theatres)	0
	Ineligible	10.2 Tourism facilities and convention centres	0
11. Wastewater Services	No	11.1 Treatment plants	100
	Yes	11.2 Sewage trunks	100
	No	11.3 Local systems	0
	n/a	11.4 Vehicles and equipment[1]	100
12. Water Supply Services	No	12.1 Treatment plants	100
	Yes	12.2 Distribution systems	100
	No	12.3 Local systems	0
	n/a	12.4 Vehicles and equipment[1]	100
13. Waste Management Services	Ineligible	13.1 Landfill collection, transfer vehicles and equipment	0
	Ineligible	13.2 Landfills and other disposal facilities	0
	n/a	13.3 Waste diversion facilities	100
	n/a	13.4 Waste diversion vehicles and equipment[1]	100
14. Policing Services	n/a	14.1 Police detachments	100
	n/a	14.2 Police rolling stock[1]	100
	n/a	14.3 Small equipment and gear	100
15. Long-term Care	n/a	15.1 Homes for the aged space	100
	n/a	15.2 Vehicles[1]	100

[1]with 7+ year lifetime

Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
16. Child Care and Early Years	n/a	16.1 Childcare and Early Years space	100
	n/a	16.2 Vehicles[1]	100
	n/a	16.3 Equipment	100
17. Public Health	n/a	17.1 Public Health space	100
	n/a	17.2 Public Health vehicles[1]	100
18. Housing Services	n/a	18.1 Housing Services space	100
19. *Provincial Offences Act* (P.O.A.)	n/a	19.1 P.O.A. including By-law Enforcement space	100
	n/a	19.1 P.O.A. including By-law Enforcement vehicles and equipment[1]	100
20. Social Services	ineligible	20.1 Social service space	0
21. Ambulance Services	n/a	21.1 Ambulance station space	100
	n/a	21.2 Vehicles[1]	100
	n/a	21.3 Equipment and gear	100
22. Hospital Provision	Ineligible	22.1 Hospital capital contributions	0
23. Provision of Headquarters for the General Administration of Municipalities and Area Municipal Boards	Ineligible	23.1 Office space	0
	Ineligible	23.2 Office furniture	0
	Ineligible	23.3 Computer equipment	0
24. Other	Yes	24.1 Studies in connection with acquiring buildings, rolling stock, materials, and equipment, and improving land[2] and facilities, including the D.C. background study cost.	0-100
	Yes	24.2 Interest on money borrowed to pay for growth-related capital	0-100

[1]with a 7+ year lifetime

[2]same percentage as service component to which it pertains.

3.4 Local Service Policy

Some of the need for services generated by additional development consists of local services related to a plan of subdivision. As such, they will be required as a condition of subdivision agreements or consent conditions. The City's detailed Local Service Policy is provided in Appendix E.

3.5 Capital Forecast

Paragraph 7 of 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:

a) costs to acquire land or an interest therein (including a leasehold interest);
b) costs to improve land;
c) costs to acquire, lease, construct or improve buildings and structures;
d) 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;
e) interest on money borrowed to pay for the above-referenced costs;
f) costs to undertake studies in connection with the above-referenced matters; and
g) costs of the D.C. background study.

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. 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 the City's approved and proposed capital budgets and master servicing/needs studies.

3.6 Treatment of Credits

Section 8, paragraph 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." Section 17, paragraph 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. There are no current outstanding credits for inclusion in the D.C. calculations.

3.7 Classes of Services

Section 7 of the D.C.A. states that a D.C. by-law may provide for any D.C. eligible service or the capital costs with respect to those services. Further, a class may be composed of any number or combination of services and may include parts or portions of each D.C. eligible service. With respect to growth-related studies, Section 7(3) of the D.C.A. states that:

> "For greater certainty, a development charge by-law may provide for a class consisting of studies in respect of any service listed in subsection 2 (4) whose capital costs are described in paragraphs 5 and 6 of subsection 5 (3)."

These provisions allow for services to be grouped together to create a class for the purposes of the D.C. by-law and D.C. reserve funds. The D.C. calculations and by-law provided herein include a class for growth studies as well as a class for Public Works. These classes are comprised of the following services:

- Public Works – Facilities, fleet, and equipment
    a. Services Related to a Highway; and
    b. Parks and Recreation Services.

- Growth Studies
    a. Services Related to a Highway;
    b. Fire Protection Services;
    c. Transit Services;
    d. Parks and Recreation services;
    e. Library Services;
    f. Water Services;
    g. Wastewater Services; and
    h. Stormwater Services.

3.8 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 7 of subsection 5 (1)."

There is no explicit requirement under the D.C.A. calculation method set out in s. 5 (1) to net the outstanding reserve fund balance as part of making the D.C. calculation; however, section 35 does restrict the way in which the funds are used in future.

For services that are subject to a per-capita-based, service level "cap," the reserve fund balance should be applied against the development-related costs for which the charge was imposed once the project is constructed (i.e. the needs of recent growth). This cost component is distinct from the development-related costs for the next 10-year period, which underlie the D.C. calculation herein.

The alternative would involve the City spending all reserve fund monies prior to renewing each by-law, which would not be a sound basis for capital budgeting. Thus, the City will use these reserve funds for the City's cost share of applicable development-related projects, which are required but have not yet been undertaken, as a way of directing the funds to the benefit of the development which contributed them (rather than to future development, which will generate the need for additional facilities directly proportionate to future growth).

Although the City has not been imposing D.C.'s since 2009, there were balances in the D.C. reserve funds that have continued to accumulate interest over the years and have

not been spent for growth-related infrastructure. As such, the D.C. reserve fund balances, as of December 31, 2020, are summarized below:

Table 3-2
Summary of the Development Charge Reserve Fund Balances at December 31, 2020

Service	Totals
Services Related to a Highway	$2,444,201.88
Parks and Recreation Services	$1,591,389.65
Total	**$4,035,591.53**

3.9 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;
- anticipated grants, subsidies, and other contributions; and
- costs related to services that are ineligible as per the D.C.A.

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

3.9.1 Reduction Required by Level of Service Ceiling

This is designed to ensure that the increase in need included in section 4.3 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 municipality over the 10-year period immediately preceding the preparation of the background study." O. Reg. 82.98 (section 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 changes to the Act as a result of Bill 73 have provided for an alternative method for calculating the services' standard ceiling. Transit services must now utilize a forward-looking service standard analysis, described later in this section.

The average service level calculation sheets for each service component in the D.C. calculation are set out in Appendix B.

3.9.2 Reduction for Uncommitted Excess Capacity

Paragraph 5 of 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."

"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.

3.9.3 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 include:

- the repair or unexpanded replacement of existing assets that are in need of repair;
- an increase in average service level of quantity or quality (compare water as an example);
- the elimination of a chronic servicing problem not created by growth; and

- providing services where none previously existed (generally considered for water or wastewater services).

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 4.9.1 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 that 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 very 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 City-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 Wednesday in one arena and Thursday 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 very 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.

3.9.4 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 (including direct developer contributions required due to the local service policy) made or anticipated by Council and in accordance with various rules such as the attribution between the share related

to new vs. existing development. That is, some grants and contributions may not specifically be applicable to growth or where Council targets fundraising as a measure to offset impacts on taxes (O. Reg. 82/98, section 6).

3.10 Municipal-wide vs. Area Rating

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. Further discussion is provided in section 6.4.4.

3.11 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.

3.12 Asset Management

The new legislation now requires that a D.C. background study must include an asset management plan (s. 10 (2) c.2). The asset management plan (A.M.P.) must deal with all assets that are proposed to be funded, in whole or in part, by D.C.s. The current regulations provide very extensive and specific requirements for the A.M.P. related to transit services (as noted in the subsequent subsection); however, they are silent with respect to how the A.M.P. is to be provided for all other services. As part of any A.M.P., the examination should be consistent with the municipality's existing assumptions, approaches, and policies on asset management planning. This examination has been included in Appendix F.

3.13 Transit

The most significant changes to the Act over the past four years, relate to the transit service. These changes relate to three areas of the calculations, as follows:

A. The background study requires the following in regard to transit costs (as per s. 8 (2) of the Regulations):

1. The calculations that were used to prepare the estimate for the planned level of service for the transit services, as mentioned in s. 5.2 (3) of the Act.

2. An identification of the portion of the total estimated capital cost relating to the transit services that would benefit,

    i. the anticipated development over the 10-year period immediately following the preparation of the background study, or
    ii. the anticipated development after the 10-year period immediately following the preparation of the background study.

3. An identification of the anticipated excess capacity that would exist at the end of the 10-year period immediately following the preparation of the background study.

4. 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 forecast ridership will be from existing or planned development.

5. 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.

B. A forward-looking service standard (as per s. 6.1 (2) of the Regulations):

1. The service is a discrete service.

2. No portion of the service that is intended to benefit anticipated development after the 10-year period immediately following the preparation of the background study may be included in the estimate.

3. No portion of the service that is anticipated to exist as excess capacity at the end of the 10-year period immediately following the preparation of the background study may be included in the estimate.

C. A detailed asset management strategy and reporting requirements (s. 6.1 (3) of the Regulation) that includes lifecycle costs, action plans that will enable the assets to be sustainable, summary of how to achieve the proposed level of service, discussion on procurement measures and risk.

Dillion Consulting has undertaken an analysis regarding the above. This is provided in Appendix G.

Chapter 4
D.C.-Eligible Cost Analysis by Service and Class of Service

4. D.C.-Eligible Cost Analysis by Service and Class of Service

4.1 Introduction

This chapter outlines the basis for calculating eligible costs for the D.C.s to be applied on a uniform basis. In each case, the required calculation process set out in s. 5 (1) paragraphs 2 to 7 in the D.C.A. and described in Chapter 3 was followed in determining D.C.-eligible costs.

The nature of the capital projects and timing identified in the chapter reflects Council's current intention. Over time, however, City 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.

4.2 Service Levels and 10-Year Capital Costs for St. Catharines' D.C. Calculation

This section evaluates the development-related capital requirements for transit services, parks & recreation services, library services, public works, and growth studies, over a 10-year planning period. Each service component is evaluated on two format sheets: the average historical 10-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. For the growth studies class of service, the infrastructure cost calculation, which determines the potential D.C. recoverable cost is also provided.

4.2.1 Transit Services

Since the passage of Bill 73 in December 2015, changes to the D.C.A. now require a forward-looking forecast for ridership in order to determine the D.C. eligibility of future transit infrastructure. Dillon Consulting Limited and City staff have worked closely together to identify ridership forecast for the 10-year growth forecast period.

Based on the information provided in Dillon's technical report (see Appendix G), the detailed transit ridership forecast is provided. The forecast results in the need for expansion of the transit fleet including 10 new conventional buses, 5 paratransit vehicles and 1 supervisory vehicle.

The gross cost of the vehicles and equipment equates to $8,745,000. Deductions to this cost have been made to recognize the benefit to existing development of $4,596,400 and benefit to growth in the post 10-year forecast period of $578,800. The resultant net cost is therefore, $3,569,800 which has been included in the D.C. calculations.

In addition to the vehicles and equipment, expansion to the transit facility has been identified in the forecast, which has a gross cost of $9,890,000. Grant funding towards this project is anticipated at 73.33% or $7,252,300. Further, deductions have been made to recognize the benefit to existing development and the benefit to post period growth in the amount of $2,150,800 and $29,000, respectfully. The resulting net cost is therefore $457,900. This amount has been included in the D.C. calculations.

The total net costs for fleet and facilities included in the D.C. calculation is $4,027,700. These growth costs have been allocated 66% residential and 34% non-residential based on the incremental growth in population to employment, for the 10-year forecast period.

Table 4-1
Infrastructure Cost Included in the Development Charges Calculation
Transit Services

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-2030	Timing (year)	Gross Capital Cost Estimate (2021$)	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 66%	Non-Residential Share 34%
	Conventional Service:										
1	Conventional 40 ft. Buses - P.M. Peak Frequency Improvement (6)	2021-2030	4,800,000	327,400	-	4,472,600	2,858,400	-	1,614,200	1,065,372	548,828
2	Conventional 40 ft. Buses - Downtown Connection on Route 314/414 (1)	2021-2030	800,000	118,400	-	681,600	97,400	-	584,200	385,572	198,628
3	Conventional 40 ft. Buses - Increased Spare to Maintain Spare Ratio (2)	2021-2030	1,600,000	127,400	-	1,472,600	844,500	-	628,100	414,546	213,554
4	Cutaway Bus for GO-Via Shuttle (1)	2021-2030	250,000	5,600	-	244,400	217,100	-	27,300	18,018	9,282
	Paratransit Service:										
5	Peak Paratransit Vehicles - Cutaway Bus (4)	2021-2030	1,000,000	-	-	1,000,000	463,200	-	536,800	354,288	182,512
6	Spare Paratransit Vehicle to Maintain Spare Ratio - Cutaway Bus (1)	2021-2030	250,000	-	-	250,000	115,800	-	134,200	88,572	45,628
	Support Vehicles:										
7	Supervisor Vehicle (1)	2021-2030	45,000	-	-	45,000	-	-	45,000	29,700	15,300
	Facility:										
8	Expansion to Transit Facility	2021-2030	9,890,000	29,000	-	9,861,000	2,150,800	7,252,300	457,900	302,214	155,686
	Total		**18,635,000**	**607,800**	**-**	**18,027,200**	**6,747,200**	**7,252,300**	**4,027,700**	**2,658,282**	**1,369,418**

4.2.2 Parks and Recreation Services

The City currently has approximately 437 hectares (1,080 acres) of land for outdoor recreation facilities and park purposes within its jurisdiction. This land consists of various sized parks, beaches, and gores. The City has sustained the current level of service over the historical 10-year period (2011 to 2020), with an average of 3.2 hectares (8.1 acres) of land and 2.1 outdoor recreation facility and/or park amenity items per 1,000 population. The City also provides approximately 0.5 linear meters of trails per capita. Including outdoor recreation facilities and park development, amenities (e.g. playground equipment, storage structures, etc.), and trails, the level of service provided is approximately $1,437 per capita. When applied over the forecast period, this average level of service translates into a D.C.-eligible amount of $14,678,736.

With respect to indoor recreation facilities, there are currently various facilities provided by the City, including community centres, arenas, indoor aquatics centres, and adult centres. These facilities currently provide just over 55,800 sq.m. (just under 601,000 sq.ft.) of space. The average historical level of service for the previous ten years equates to approximately 0.38 sq.m. (4.12 sq.ft.) of space per capita or an investment of $1,509 per capita. This service standard provides a D.C.-eligible amount of $16,245,717.

The City services the parks and recreation facilities with various vehicles and equipment. The inventory provides for a per capita standard of $48. Over the forecast period, this provides for an additional D.C.-eligible amount of $491,756.

In total the historical parks and recreation service standard equates to $31,416,209.

Based on the projected growth over the buildout forecast period, the City has identified $69,974,000 in future growth capital costs for parkland development, various additional amenities, trails, and facilities as identified. Deductions to recognize post period benefit of $5,610,000, existing benefit of $33,846,000, and grants, subsidies and other contributions attributable to new development of $1,187,500 have been made. In addition, the existing reserve fund balance for parks and recreation services, totaling $1,591,390, has been deducted from the calculations. Therefore, the net growth capital cost $27,739,110 has been included in the D.C. calculations.

As the predominant users of parks and recreation tend to be residents of the City, the forecast growth-related costs have been allocated 95% to residential and 5% to non-residential.

Table 4-2
Infrastructure Cost Included in the Development Charges Calculation
Parks and Recreation Services

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-2030	Timing (year)	Gross Capital Cost Estimate (2021$)	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	Aquatics Facilities	2026-2028	17,000,000	5,100,000	-	11,900,000	8,500,000	-	3,400,000	3,230,000	170,000
2	Twinning of existing single pad arena	2026-2028	22,236,000	-	-	22,236,000	4,664,000	-	17,572,000	16,693,400	878,600
3	Community Hub	2025-2026	3,570,000	-	-	3,570,000	1,339,000	-	2,231,000	2,119,450	111,550
4	Berkley Park Add Washroom	2024	663,000	-	-	663,000	617,000	-	46,000	43,700	2,300
5	Walkinshaw Park Replace & Expand Washroom	2026	663,000	-	-	663,000	617,000	-	46,000	43,700	2,300
6	George Taylor Field Replacement & Upgrade Washrooms & Storage Facility	2021	1,122,000	-	-	1,122,000	1,044,000	-	78,000	74,100	3,900
7	Downtown Self Cleaning/Contained Washroom	2021	510,000	-	-	510,000	474,000	-	36,000	34,200	1,800
8	Jaycee Park Indoor Equip. Storage Facility	2026-2030	1,020,000	-	-	1,020,000	-	-	1,020,000	969,000	51,000
9	Playgrounds	2021-2029	10,521,000	-	-	10,521,000	9,788,000	-	733,000	696,350	36,650
10	Basketball Courts	2021-2029	1,387,000	-	-	1,387,000	1,290,000	-	97,000	92,150	4,850
11	Tennis Courts	2021-2029	2,117,000	-	-	2,117,000	1,969,000	-	148,000	140,600	7,400
12	Additional Parkland Development/Amenities in Existing Parks	2021-2029	2,423,000	-	-	2,423,000	1,067,000	1,187,500	168,500	160,075	8,425
13	Sunset Beach Improvements, Expansion of Washroom facility, Replacement of Boat Launch	2021-2029	1,428,000	-	-	1,428,000	1,071,000	-	357,000	339,150	17,850
14	Welland Canal Trail Widening	2021-2023	1,224,000	-	-	1,224,000	979,000	-	245,000	232,750	12,250
15	Additional Skateboard Park (North of QEW)	2026-2030	510,000	-	-	510,000	-	-	510,000	484,500	25,500
16	Water Bottle Filling Stations	2021-2029	459,000	-	-	459,000	427,000	-	32,000	30,400	1,600
17	Parkland Development near GO Station	2026-2030	306,000	-	-	306,000	-	-	306,000	290,700	15,300
18	Parkland Development/Amenities near Glendale & Welland Canal	2026-2030	306,000	-	-	306,000	-	-	306,000	290,700	15,300
19	Parkland Development at former General Motors Site	2031	510,000	510,000	-	-	-	-	-	-	-
20	Design of Additional Splashpad, Sun Shelter and Washroom	2021	204,000	-	-	204,000	-	-	204,000	193,800	10,200
21	Construction of Additional Splashpad, Sun Shelter and Washroom	2022	1,020,000	-	-	1,020,000	-	-	1,020,000	969,000	51,000
22	Pathway Hydro Corridor(P7)	2022	775,000	-	-	775,000	-	-	775,000	736,250	38,750
23	Reserve Adjustment		-	-	-	-	1,591,390	-	(1,591,390)	(1,511,820)	(79,569)
	Total		**69,974,000**	**5,610,000**	**-**	**64,364,000**	**35,437,390**	**1,187,500**	**27,739,110**	**26,352,155**	**1,386,956**

4.2.3 Library Services

The City provides library services from five facilities which total 6,837 sq.m. (73,597 sq. ft.) in library space. Based on the space provided over the past 10 years, the historical average level of service provided by the City equates to an investment of $230 per capita. This level of service provides the City with a maximum D.C.-eligible amount for recovery over the forecast period of $2,351,339.

The library currently has 380,750 collection materials. These collection items include various materials including books, electronic resources, and specialty electronic equipment, all of which have a total current replacement value of approximately $9.6 million. Over the historical 10-year period (2011-2020), the average level of service has been 2.82 items or $77 per capita. This provides a D.C.-eligible amount of $784,358 for the forecast period.

The library also provides a holds-to-go kiosk and a books-to-go kiosk as well as two vehicles. These assets provide a historical service level average of $1 per capita. This level of service provided the City with a maximum D.C.-eligible amount for recovery over the forecast period of $6,536.

In total, the service standard provides for a maximum D.C.-eligible amount of $3,142,234.

An expansion and renovation to the Centennial branch has been identified for inclusion in the D.C. for library facilities to assist in servicing growth. The gross cost of the project is $3,708,000 million. With a benefit to existing deduction of $1,372,000, the growth-related amount being included in the D.C. calculations equals $2,336,000. In addition, expansion to the collection is anticipated at a cost of $800,000. Therefore, the total cost included in the D.C. calculations for library services is $3,136,000.

While library services are predominantly residential based, there is some use of the facilities by non-residential users, for the purpose of research. To acknowledge this use, the capital costs have been allocated 95% residential and 5% non-residential.

Table 4-3
Infrastructure Cost Included in the Development Charges Calculation
Library Services

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-2030	Timing (year)	Gross Capital Cost Estimate (2021$)	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	Centennial Renovation/Expansion of Public Space	2023-2026	3,708,000	-	-	3,708,000	1,372,000	-	2,336,000	2,219,200	116,800
2	Collection Growth	2021-2024	400,000	-	-	400,000	-	-	400,000	380,000	20,000
3	Collection Growth	2025-2030	400,000	-	-	400,000	-	-	400,000	380,000	20,000
	Total		**4,508,000**	**-**	**-**	**4,508,000**	**1,372,000**	**-**	**3,136,000**	**2,979,200**	**156,800**

4.2.4 Growth Studies

The D.C.A. permits the inclusion of studies undertaken to facilitate the completion of the City's capital works program. As discussed in Section 3.7, these studies have been allocated as a class of services based on each service to which the study relates.

For planning related studies, a deduction of 10% has been applied to recognize the extent to which the studies relate to non-D.C.-eligible services. All planning studies and the D.C. studies have been allocated to the classes of services based on the proportion of the total net growth-related capital costs as follows:

- Services Related to a Highway – 16%
- Fire Protection Services – 13%
- Transit Services – 7%
- Parks and Recreation Services – 50%
- Library Services – 6%
- Water Services – 1%
- Wastewater Services – 3%
- Stormwater Services – 4%

The following provides a list of the planning and D.C. studies included in the calculations:

- Official Plan Update/Review;
- Financial Impact Analysis of Growth;
- Secondary Plan (Former General Motors);
- Glendale/Welland Canals Parkway Secondary Plan; and
- Downtown Public Space Study;

The other study has been allocated between eligible D.C. services in the following manner:

- Active Transportation Master Plan (50% to parks and recreation and 50% to services related to a highway).

The remainder of the growth studies are service specific including:

- Major Parks Master Plan (100% parks and recreation);
- Tree Management Framework (100% parks and recreation);
- Horticulture Management Plan (100% parks and recreation);
- Sports Field Strategy (100% parks and recreation);
- Fairview Park Feasibility/Community Visioning (100% parks and recreation);
- Recreational Master Plan (100% parks and recreation);
- Aquatics Facilities Strategy (100% parks and recreation);
- Arena Strategy (100% parks and recreation);
- Feasibility Study – Arena (100% parks and recreation);
- Feasibility Study – Aquatics (100% parks and recreation);
- Transportation Master Plan – (100% services related to a highway);
- Wastewater Master Plan (100% wastewater);
- Water Master Plan (100% water);
- Storm System Master Servicing Plan (100% stormwater);
- Sewershed Analysis (annual) (100% wastewater);
- Port Dalhousie Area Storm Study (100% stormwater);
- Watercourse Flooding and Erosion Control Priority Study (100% stormwater); and
- Low Impact Development Study (100% stormwater).

The cost of these studies is $7,959,500, of which $1,890,000 is attributable to post period benefit and $2,297,943 is attributable to existing benefit. A deduction of $135,150 has been made to recognize the portion of planning studies related to D.C.-ineligible services. The net growth-related capital cost of $3,636,408 has been included in the D.C. calculation.

These costs have been allocated 66% residential and 34% non-residential based on the incremental growth in population to employment for the 10-year forecast period.

Table 4-4
Infrastructure Cost Included in the Development Charges Calculation
Class of Service – Growth Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-2030	Service to Which Project Relates	Timing (year)	Gross Capital Cost Estimate (2021$)	Post Period Benefit	Other Deductions (to recognize benefit to non-D.C. services)	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 66%	Non-Residential Share 34%
1	**Development Charge Background Study**											
1a	Development Charge Background Study	Water Services	2025	1,740	-		1,740	-		1,740	1,148	592
1b	Development Charge Background Study	Wastewater Services	2025	6,480			6,480	-		6,480	4,277	2,203
1c	Development Charge Background Study	Stormwater Services	2025	8,070	-		8,070	-		8,070	5,326	2,744
1d	Development Charge Background Study	Services Related to a Highway	2025	31,820	-		31,820	-		31,820	21,001	10,819
1e	Development Charge Background Study	Transit Services	2025	14,960	-		14,960	-		14,960	9,874	5,086
1f	Development Charge Background Study	Fire Protection Services	2025	26,270	-		26,270	-		26,270	17,338	8,932
1g	Development Charge Background Study	Parks and Recreation Services	2025	103,010	-		103,010	-		103,010	67,987	35,023
1h	Development Charge Background Study	Library Services	2025	11,650	-		11,650	-		11,650	7,689	3,961
	Sub-Total			**204,000**	**-**	**-**	**204,000**	**-**	**-**	**204,000**	**134,640**	**69,360**
2	**Development Charge Background Study**											
2a	Development Charge Background Study	Water Services	2030	1,740	-		1,740	-		1,740	1,148	592
2b	Development Charge Background Study	Wastewater Services	2030	6,480	-		6,480	-		6,480	4,277	2,203
2c	Development Charge Background Study	Stormwater Services	2030	8,070	-		8,070	-		8,070	5,326	2,744
2d	Development Charge Background Study	Services Related to a Highway	2030	31,820	-		31,820	-		31,820	21,001	10,819
2e	Development Charge Background Study	Transit Services	2030	14,960	-		14,960	-		14,960	9,874	5,086
2f	Development Charge Background Study	Fire Protection Services	2030	26,270	-		26,270	-		26,270	17,338	8,932
2g	Development Charge Background Study	Parks and Recreation Services	2030	103,010	-		103,010	-		103,010	67,987	35,023
2h	Development Charge Background Study	Library Services	2030	11,650	-		11,650	-		11,650	7,689	3,961
	Sub-Total			**204,000**	**-**	**-**	**204,000**	**-**	**-**	**204,000**	**134,640**	**69,360**

Table 4-4 (Cont'd)
Infrastructure Cost Included in the Development Charges Calculation
Class of Service – Growth Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-2030	Service to Which Project Relates	Timing (year)	Gross Capital Cost Estimate (2021$)	Post Period Benefit	Other Deductions (to recognize benefit to non-D.C. services)	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 66%	Non-Residential Share 34%
3	**Official Plan Update/Review**											
3a	Official Plan Review	Water Services	2023-2025	2,610	-	261	2,349	587		1,762	1,163	599
3b	Official Plan Review	Wastewater Services	2023-2025	9,720	-	972	8,748	2,187		6,561	4,330	2,231
3c	Official Plan Review	Stormwater Services	2023-2025	12,100	-	1,210	10,890	2,723		8,168	5,391	2,777
3d	Official Plan Review	Services Related to a Highway	2023-2025	47,740	-	4,774	42,966	10,742		32,225	21,268	10,956
3e	Official Plan Review	Transit Services	2023-2025	22,440	-	2,244	20,196	5,049		15,147	9,997	5,150
3f	Official Plan Review	Fire Protection Services	2023-2025	39,400	-	3,940	35,460	8,865		26,595	17,553	9,042
3g	Official Plan Review	Parks and Recreation Services	2023-2025	154,510	-	15,451	139,059	34,765		104,294	68,834	35,460
3h	Official Plan Review	Library Services	2023-2025	17,480	-	1,748	15,732	3,933		11,799	7,787	4,012
	Sub-Total			**306,000**	**-**	**30,600**	**275,400**	**68,850**	**-**	**206,550**	**136,323**	**70,227**
4	**Official Plan Update/Review**											
4a	Official Plan Review	Water Services	2028-2030	2,610	-	261	2,349	587		1,762	1,163	599
4b	Official Plan Review	Wastewater Services	2028-2030	9,720	-	972	8,748	2,187		6,561	4,330	2,231
4c	Official Plan Review	Stormwater Services	2028-2030	12,100	-	1,210	10,890	2,723		8,168	5,391	2,777
4d	Official Plan Review	Services Related to a Highway	2028-2030	47,740	-	4,774	42,966	10,742		32,225	21,268	10,956
4e	Official Plan Review	Transit Services	2028-2030	22,440	-	2,244	20,196	5,049		15,147	9,997	5,150
4f	Official Plan Review	Fire Protection Services	2028-2030	39,400	-	3,940	35,460	8,865		26,595	17,553	9,042
4g	Official Plan Review	Parks and Recreation Services	2028-2030	154,510	-	15,451	139,059	34,765		104,294	68,834	35,460
4h	Official Plan Review	Library Services	2028-2030	17,480	-	1,748	15,732	3,933		11,799	7,787	4,012
	Sub-Total			**306,000**	**-**	**30,600**	**275,400**	**68,850**	**-**	**206,550**	**136,323**	**70,227**

Table 4-4 (Cont'd)
Infrastructure Cost Included in the Development Charges Calculation
Class of Service – Growth Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-2030	Service to Which Project Relates	Timing (year)	Gross Capital Cost Estimate (2021$)	Post Period Benefit	Other Deductions (to recognize benefit to non-D.C. services)	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 66%	Non-Residential Share 34%
5	**Financial Impact Analysis of Growth**											
5a	Financial Impact Analysis of Growth	Water Services	2023	1,520	-	152	1,368	342		1,026	677	349
5b	Financial Impact Analysis of Growth	Wastewater Services	2023	5,670	-	567	5,103	1,276		3,827	2,526	1,301
5c	Financial Impact Analysis of Growth	Stormwater Services	2023	7,060	-	706	6,354	1,589		4,766	3,145	1,620
5d	Financial Impact Analysis of Growth	Services Related to a Highway	2023	27,850	-	2,785	25,065	6,266		18,799	12,407	6,392
5e	Financial Impact Analysis of Growth	Transit Services	2023	13,090	-	1,309	11,781	2,945		8,836	5,832	3,004
5f	Financial Impact Analysis of Growth	Fire Protection Services	2023	22,990	-	2,299	20,691	5,173		15,518	10,242	5,276
5g	Financial Impact Analysis of Growth	Parks and Recreation Services	2023	90,130	-	9,013	81,117	20,279		60,838	40,153	20,685
5h	Financial Impact Analysis of Growth	Library Services	2023	10,190	-	1,019	9,171	2,293		6,878	4,540	2,339
	Sub-Total			**178,500**	**-**	**17,850**	**160,650**	**40,163**	**-**	**120,488**	**79,522**	**40,966**
6	**Secondary Plan (Former General Motors site)**											
6a	Secondary Plan (Former General Motors site)	Water Services	2021	2,180	-	218	1,962	196		1,766	1,165	600
6b	Secondary Plan (Former General Motors site)	Wastewater Services	2021	8,100	-	810	7,290	729		6,561	4,330	2,231
6c	Secondary Plan (Former General Motors site)	Stormwater Services	2021	10,090	-	1,009	9,081	908		8,173	5,394	2,779
6d	Secondary Plan (Former General Motors site)	Services Related to a Highway	2021	39,780	-	3,978	35,802	3,580		32,222	21,266	10,955
6e	Secondary Plan (Former General Motors site)	Transit Services	2021	18,700	-	1,870	16,830	1,683		15,147	9,997	5,150
6f	Secondary Plan (Former General Motors site)	Fire Protection Services	2021	32,840	-	3,284	29,556	2,956		26,600	17,556	9,044
6g	Secondary Plan (Former General Motors site)	Parks and Recreation Services	2021	128,760	-	12,876	115,884	11,588		104,296	68,835	35,461
6h	Secondary Plan (Former General Motors site)	Library Services	2021	14,550	-	1,455	13,095	1,310		11,786	7,778	4,007
	Sub-Total			**255,000**	**-**	**25,500**	**229,500**	**22,950**	**-**	**206,550**	**136,323**	**70,227**

Table 4-4 (Cont'd)
Infrastructure Cost Included in the Development Charges Calculation
Class of Service – Growth Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-2030	Service to Which Project Relates	Timing (year)	Gross Capital Cost Estimate (2021$)	Post Period Benefit	Other Deductions (to recognize benefit to non-D.C. services)	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 66%	Non-Residential Share 34%
7	**Glendale/Welland Canals Parkway Secondary Plan**											
7a	Glendale/Welland Canals Parkway Secondary Plan	Water Services	2022	870	-	87	783	78		705	465	240
7b	Glendale/Welland Canals Parkway Secondary Plan	Wastewater Services	2022	3,240	-	324	2,916	292		2,624	1,732	892
7c	Glendale/Welland Canals Parkway Secondary Plan	Stormwater Services	2022	4,030	-	403	3,627	363		3,264	2,154	1,110
7d	Glendale/Welland Canals Parkway Secondary Plan	Services Related to a Highway	2022	15,910	-	1,591	14,319	1,432		12,887	8,505	4,382
7e	Glendale/Welland Canals Parkway Secondary Plan	Transit Services	2022	7,480	-	748	6,732	673		6,059	3,999	2,060
7f	Glendale/Welland Canals Parkway Secondary Plan	Fire Protection Services	2022	13,130	-	1,313	11,817	1,182		10,635	7,019	3,616
7g	Glendale/Welland Canals Parkway Secondary Plan	Parks and Recreation Services	2022	51,500	-	5,150	46,350	4,635		41,715	27,532	14,183
7h	Glendale/Welland Canals Parkway Secondary Plan	Library Services	2022	5,840	-	584	5,256	526		4,730	3,122	1,608
	Sub-Total			**102,000**	**-**	**10,200**	**91,800**	**9,180**	**-**	**82,620**	**54,529**	**28,091**
8	**Downtown Public Space Study**											
8a	Downtown Public Space Study	Services Related to a Highway	2024	102,000	-	10,200	91,800	68,850		22,950	15,147	7,803
8b	Downtown Public Space Study	Parks and Recreation Services	2024	102,000	-	10,200	91,800	68,850		22,950	15,147	7,803
9	Library Strategic Plan	Library Services	2023	35,000	-		35,000	26,250		8,750	5,775	2,975
10	Library Strategic Plan	Library Services	2027	35,000	-		35,000	26,250		8,750	5,775	2,975
11	Facility Studies	Library Services	2021	50,000	-		50,000	5,000		45,000	29,700	15,300
12	Facility Studies	Library Services	2024	95,000	-		95,000	9,500		85,500	56,430	29,070
13	Merritt Branch Expansion Feasibility Study	Library Services	2025	60,000	-		60,000	45,000		15,000	9,900	5,100
14	Fire Feasibility Studies	Fire Protection Services	2024	60,000	-		60,000	45,000		15,000	9,900	5,100
15	Master Fire Plan	Fire Protection Services	2025	255,000	-		255,000	127,500		127,500	84,150	43,350
16	Parks Policy Plan	Parks and Recreation Services	2021	180,000	-		180,000	45,000		135,000	89,100	45,900
17	**Active Transportation Master Plan**											
17a	Active Transportation Master Plan	Parks and Recreation Services	2023	125,000	-		125,000	31,250		93,750	61,875	31,875
17b	Active Transportation Master Plan	Services Related to a Highway	2023	125,000	-		125,000	31,250		93,750	61,875	31,875
	Sub-Total			**250,000**	**-**	**-**	**250,000**	**62,500**	**-**	**187,500**	**123,750**	**63,750**

Table 4-4 (Cont'd)
Infrastructure Cost Included in the Development Charges Calculation
Class of Service – Growth Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-2030	Service to Which Project Relates	Timing (year)	Gross Capital Cost Estimate (2021$)	Post Period Benefit	Other Deductions (to recognize benefit to non-D.C. services)	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 66%	Non-Residential Share 34%
7	**Glendale/Welland Canals Parkway Secondary Plan**											
18	Major Park Master Plans	Parks and Recreation Services	2023	75,000	-		75,000	56,250		18,750	12,375	6,375
19	Tree Management Framework	Parks and Recreation Services	2023	75,000	-		75,000	67,500		7,500	4,950	2,550
20	Horticulture Management Plan	Parks and Recreation Services	2029	75,000	-		75,000	37,500		37,500	24,750	12,750
21	Sports Field Strategy	Parks and Recreation Services	2022	75,000	-		75,000	18,750		56,250	37,125	19,125
22	Fairview Park Feasibility/Community Visioning	Parks and Recreation Services	2022	75,000	-		75,000	18,750		56,250	37,125	19,125
23	Recreation Master Plan	Parks and Recreation Services	2025-2025	180,000	-		180,000	36,000		144,000	95,040	48,960
24	Aquatics Facilities Strategy	Parks and Recreation Services	2029-2029	75,000	-		75,000	15,000		60,000	39,600	20,400
25	Arena Strategy	Parks and Recreation Services	2029-2029	75,000	-		75,000	15,000		60,000	39,600	20,400
26	Feasibility Study - Arena	Parks and Recreation Services	2024	75,000	-		75,000	-		75,000	49,500	25,500
27	Feasibility Study - Aquatics	Parks and Recreation Services	2026	75,000	-		75,000	-		75,000	49,500	25,500
28	Transportation Master Plan (on going)	Services Related to a Highway	2021	480,000	-		480,000	240,000		240,000	158,400	81,600
29	Transportation Master Plan Update	Services Related to a Highway	2026	245,000	-		245,000	122,500		122,500	80,850	41,650
30	Transportation Master Plan Update	Services Related to a Highway	2031	245,000	245,000		-	-		-	-	-
31	Transportation Master Plan Update	Services Related to a Highway	2036	245,000	245,000		-	-		-	-	-
32	Wastewater Master Plan	Wastewater Services	2021	615,000	-		615,000	307,500		307,500	202,950	104,550
33	Wastewater Master Plan	Wastewater Services	2031	615,000	615,000		-	-		-	-	-
34	Water Master Plan	Water Services	2021	245,000	-		245,000	122,500		122,500	80,850	41,650
35	Water Master Plan	Water Services	2031	245,000	245,000		-	-		-	-	-
36	Storm System Master Servicing Plan	Stormwater Services	2021	360,000	-		360,000	180,000		180,000	118,800	61,200
37	Storm System Master Servicing Plan	Stormwater Services	2031	360,000	360,000		-	-		-	-	-
38	Sewershed Analysis (annually)	Wastewater Services	2021	70,000	-		70,000	-		70,000	46,200	23,800
39	Port Dalhousie Area Storm Study	Stormwater Services	2021	120,000	-		120,000	90,000		30,000	19,800	10,200
40	Watercourse Flooding and Erosion Control Priority Study	Stormwater Services	2021	180,000	-		180,000	171,000		9,000	5,940	3,060
41	Watercourse Flooding and Erosion Control Priority Study	Stormwater Services	2031	180,000	180,000		-	-		-	-	-
42	Low Impact Development Study	Stormwater Services	2023	120,000	-		120,000	60,000		60,000	39,600	20,400
	Total			**7,959,500**	**1,890,000**	**135,150**	**5,934,350**	**2,297,943**	**-**	**3,636,408**	**2,400,029**	**1,236,379**

4.3 Service Levels and 21-Year Capital Costs for St. Catharines' D.C. Calculation

This section evaluates the development-related capital requirements for those services with capital costs associated with the 21-year forecast.

4.3.1 Services Related to a Highway

The City's existing average level of investment in roads per capita amounts to $7,469, resulting in a D.C.-eligible recovery amount of approximately $194,024,162 million over the 21-year forecast period.

The City also has 117 bridges and culverts, 556 km of sidewalks, 23,533 streetlights and 52 traffic signals. This provides an average per capita level of investment of $495 for the bridges and culverts, $945 for sidewalks, $416 for streetlights and $103 for the traffic signals. The D.C.-eligible recovery amount is approximately $12.9 million for bridges and culverts, $24.6 million for sidewalks, $10.8 million for streetlights and $2.7 million for traffic signals over the forecast period.

The total service standard for Services Related to a Highway is equal to $244,919,620.

The City recently completed a Transportation Master Plan (T.M.P.) that assisted in providing future capital needs required to service services. In addition to the T.M.P., City Staff identified future capital infrastructure needs. The capital needs include additional road expansion & upgrades, construction of new bridges and structures, and active transportation expansions and upgrades, with a total program cost equal to $48,525,000. Deductions of $37,710,200 have been made to account for costs that benefit existing development. A further deduction in the amount of $2,444,202, has been made to recognize the existing reserve fund balance. These deductions result in a net D.C.-eligible amount of $8,370,598 to be included in the D.C. calculations.

The residential/non-residential capital cost allocation for all services related to a highway is 68% residential and 32% non-residential based on the incremental growth in population to employment for the buildout forecast period.

Table 4-5
Infrastructure Cost Included in the Development Charges Calculation
Services Related to a Highway

Prj .No	Increased Service Needs Attributable to Anticipated Development 2021-2041	Timing (year)	Gross Capital Cost Estimate (2021$)	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 68%	Non-Residential Share 32%
1	First Street Louth (CN to St. Paul Street West)	2023	2,920,000	-	-	2,920,000	-	-	2,920,000	1,985,600	934,400
2	Ridley & Vansickle Signals	2030-2036	291,000	-	-	291,000	-	-	291,000	197,880	93,120
3	First Street Louth (CN to St. Paul Street West) - property acquisition / widening	2023	136,000	-	-	136,000	-	-	136,000	92,480	43,520
4	Carlton Bridge (Pedestrian facility)	2035	3,060,000	-	-	3,060,000	2,570,200	-	489,800	333,064	156,736
5	Moffatt Street Secondary Access	2026-2029	6,500,000	-	-	6,500,000	5,459,500	-	1,040,500	707,540	332,960
6	Annual New Sidewalk Program (yearly)	2021-2041	6,300,000	-	-	6,300,000	5,291,500	-	1,008,500	685,780	322,720
7	Grantham Rail Trail	2021	347,000	-	-	347,000	291,500	-	55,500	37,740	17,760
8	Pelham Rd. (bike lanes)	2021	478,000	-	-	478,000	401,500	-	76,500	52,020	24,480
9	Bike Lane Bollards	2021	36,700	-	-	36,700	30,800	-	5,900	4,012	1,888
10	Active Transportation	2022	255,000	-	-	255,000	214,200	-	40,800	27,744	13,056
11	Traffic Signals (including pedestrian crossings)	2021-2041	7,980,000	-	-	7,980,000	6,702,600	-	1,277,400	868,632	408,768
12	2021 New Sidewalks(2022-$345k+reg)	2021	87,700	-	-	87,700	73,700	-	14,000	9,520	4,480
13	Hasting St.new sidewalk	2021	129,000	-	-	129,000	108,300	-	20,700	14,076	6,624
14	St. David's/Townline Reconstruction new north sidewalk	2021	363,000	-	-	363,000	304,900	-	58,100	39,508	18,592
15	Pelham Rd. (bike lanes) sidewalk	2021	106,000	-	-	106,000	89,000	-	17,000	11,560	5,440
	Identified in Trasportation Master Plan:										
16	Chestnut Street Extension from Mountain Street to Hastings Street	2030+	694,000	-	-	694,000	347,000	-	347,000	235,960	111,040
	Active Transportation:										
17	Signed Route (26 km)	2022-2041	40,600	-	-	40,600	34,100	-	6,500	4,420	2,080
18	Paved Shoulder (11 km)	2022-2041	2,146,000	-	-	2,146,000	1,802,500	-	343,500	233,580	109,920
19	Bike Lanes (41 km)	2022-2041	2,827,000	-	-	2,827,000	2,374,500	-	452,500	307,700	144,800
20	Buffered Bike Lane (7 km)	2022-2041	592,000	-	-	592,000	497,200	-	94,800	64,464	30,336
21	In-Boulevard Multi-Use Trail (3 km)	2022-2041	1,268,000	-	-	1,268,000	1,065,000	-	203,000	138,040	64,960
22	Off-Road Trail (46 km)	2022-2041	11,968,000	-	-	11,968,000	10,052,200	-	1,915,800	1,302,744	613,056
	Reserve Fund Adjustment:										
23	Reserve Fund Adjustment	n/a	-	-	-	-	2,444,202	-	(2,444,202)	(1,662,057)	(782,145)
	Total		**48,525,000**	**-**	**-**	**48,525,000**	**40,154,402**	**-**	**8,370,598**	**5,692,007**	**2,678,591**

4.3.2 Public Works (Facilities, Vehicles and Equipment)

As per Section 3.7, a D.C. by-law may provide for any D.C.-eligible service to be included in a class set out in the by-law. Public Works is proposed as a class of service comprised of facilities, vehicles and equipment needs.

The City operates its Municipal Works Department out of a number of facilities with 12,403 sq.m. (133,500 sq.ft.) of current building area, providing for a buildout forecast per capita average level of service of 0.09 sq.m. (0.93 sq.ft.) per capita or $446/capita. This level of service provides the City with a maximum D.C.-eligible amount for recovery over the long-term forecast period of $11,598,065.

The City's public works fleet inventory, including 352 vehicles and equipment items, provides for a per capita standard of $220. Over the forecast period, the D.C.-eligible amount for vehicles and equipment is $5,717,199.

The maximum D.C.-eligible amount for recovery over the forecast period for public works is $17,315,263.

With respect to future growth needs, the City has identified expansion to the fleet of vehicles and equipment at a total cost of $238,500. A benefit to existing deduction of $214,700 has been made, resulting in a cost of $23,800 which has been included in the D.C. calculations at this time.

The residential/non-residential split is 68% allocation to residential development and 32% allocation non-residential development.

Table 4-6
Infrastructure Cost Included in the Development Charges Calculation
Class of Service – Public Works

Prj .No	Increased Service Needs Attributable to Anticipated Development 2021-2041	Service to Which Project Relates	Timing (year)	Gross Capital Cost Estimate (2021$)	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 68%	Non-Residential Share 32%
1	Snow Blower	Services Related to a Highway	2023	3,500	-	-	3,500	3,200	-	300	204	96
2	Trackless	Services Related to a Highway	2024	150,000	-	-	150,000	135,000	-	15,000	10,200	4,800
3	Attachments	Services Related to a Highway	2024	20,000	-	-	20,000	18,000	-	2,000	1,360	640
4	Pickup Truck (Crew Cab)	Services Related to a Highway	2025	60,000	-	-	60,000	54,000	-	6,000	4,080	1,920
5	Trailer	Services Related to a Highway	2025	5,000	-	-	5,000	4,500	-	500	340	160
	Total			**238,500**	**-**	**-**	**238,500**	**214,700**	**-**	**23,800**	**16,184**	**7,616**

4.3.3 Fire Protection Services

The City currently operates its fire services from 6 stations as well as a training centre and a fire prevention office with a combined sq.m. of 5,164 (sq.ft. of 55,590), providing for a per capita average level of service of approximately 0.04 sq.m. (0.41 sq.ft.) or $184 per capita. This level of service provides the City with a maximum D.C.-eligible amount for recovery over the forecast period of $4,781,175.

St. Catharines has a current inventory of 35 vehicles providing for an average level of service of $111 per capita which translates into a D.C.-eligible amount of $2,881,331. In addition to vehicles the fire service also has a variety of small equipment and gear which it provides to its firefighters (both full and part-time) for use in fire services. This results in an average level of service of $23 per capita. The total D.C.-eligible amount for small equipment and gear is $608,948.

The maximum D.C.-eligible amount for recovery over the buildout forecast period for fire services is $8,271,454.

The City has identified the need for the replacement and expansion of three of its stations along with addition and renovation of station 6 at a gross cost of $26,234,000. A deduction of $19,160,000 to recognize the benefit to existing development, has been made resulting in a net amount of $7,074,000 being included in the D.C. calculations.

These costs are shared between residential and non-residential based on the population to employment ratio over the buildout forecast period, resulting in 68% being allocated to residential development and 32% being allocated to non-residential development.

Table 4-7
Infrastructure Cost Included in the Development Charges Calculation
Fire Services

Prj . No.	Increased Service Needs Attributable to Anticipated Development 2021-2041	Timing (year)	Gross Capital Cost Estimate (2021$)	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 68%	Non-Residential Share 32%
1	Station 2 Replacement and Expansion	2024-2025	5,534,000	-	-	5,534,000	2,719,000	-	2,815,000	1,914,200	900,800
2	Station 3 Replacement and Expansion	2024-2025	5,641,000	-	-	5,641,000	3,581,000	-	2,060,000	1,400,800	659,200
3	Station 6 Addition & Renovation	2026-2027	1,489,000	-	-	1,489,000	970,000	-	519,000	352,920	166,080
4	Replacement and Expansion of Station 1	2021-2023	13,570,000	-	-	13,570,000	11,890,000	-	1,680,000	1,142,400	537,600
	Total		**26,234,000**	**-**	**-**	**26,234,000**	**19,160,000**	**-**	**7,074,000**	**4,810,320**	**2,263,680**

4.4 Service Levels and Urban 21-Year Capital Costs for St. Catharines' D.C. Calculation

This section evaluates the development-related capital requirements for those services with urban 21-year buildout capital costs.

4.4.1 Stormwater Services

St. Catharines has identified the need to realign Francis Creek, including two (2) CN culvert crossings is assist in servicing growth. This project is required to service future growth. Therefore, a growth-related capital cost of $2,173,000 has been identified for inclusion in the D.C. calculations.

The costs for all stormwater services are shared at 46% residential benefit and 54% non-residential benefit, based on the benefiting lands associated with the stormwater management works over the urban 21-year buildout forecast period.

Table 4-8
Infrastructure Cost Included in the Development Charges Calculation
Stormwater Services

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-Urban 21 Year	Timing (year)	Gross Capital Cost Estimate (2021$)	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 46%	Non-Residential Share 54%
1	Francis Creek realignment including 2 CN culvert crossings	2024	2,173,000	-	-	2,173,000	-	-	2,173,000	999,580	1,173,420
	Total		**2,173,000**	**-**	**-**	**2,173,000**	**-**	**-**	**2,173,000**	**999,580**	**1,173,420**

4.4.2 Wastewater Services

The City has identified a provision for annual sewer separation to be included in the D.C. calculation related to wastewater services at a gross capital cost of $21,420,000. Separation of the combined sewer system will provide additional capacity in the sanitary system to assist in servicing growth. A deduction of $9,174,400 has been made to account for the share of the costs attributable to existing development. In addition, $10.5 million has been deducted from the calculations to account for a contribution from the Region. The resulting net D.C.-eligible amount of $1,745,600 which has been included in the D.C. calculations.

The costs for all wastewater services are shared at 69% residential benefit and 31% non-residential benefit, based on the population to employment ratio over the urban 21-year buildout forecast period.

Table 4-9
Infrastructure Cost Included in the Development Charges Calculation
Wastewater Services

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-Urban 21 Year	Timing (year)	Gross Capital Cost Estimate (2021$)	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 69%	Non-Residential Share 31%
1	Provision for Annual Sewer Separation	2021-2041	21,420,000	-	-	21,420,000	9,174,400	10,500,000	1,745,600	1,204,464	541,136
	Total		**21,420,000**	**-**	**-**	**21,420,000**	**9,174,400**	**10,500,000**	**1,745,600**	**1,204,464**	**541,136**

4.4.3 Water Services

The City has identified two growth-related capital projects related to water distribution services. These projects include new watermains to service multiple developments. The total gross capita cost related to these projects is $469,200 which has been included in the D.C. calculations.

The costs for all water services are shared at 69% residential benefit and 31% non-residential benefit, based on the population to employment ratio over the forecast period.

Table 4-10
Infrastructure Cost Included in the Development Charges Calculation
Water Services

Prj.No	Increased Service Needs Attributable to Anticipated Development 2021-Urban 21 Year	Timing (year)	Gross Capital Cost Estimate (2021$)	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 69%	Non-Residential Share 31%
1	Ridley Road (300mm w/m) First Street Louth to Vansickle Road	2023	183,600	-	-	183,600	-	-	183,600	126,684	56,916
2	First Street Louth CNR to Ridley Road (300mm)	2023	285,600	-	-	285,600	-	-	285,600	197,064	88,536
	Total		**469,200**	**-**	**-**	**469,200**	**-**	**-**	**469,200**	**323,748**	**145,452**

Chapter 5
D.C. Calculation

5. D.C. Calculation

Table 5-1 calculates the proposed uniform D.C.s to be imposed for infrastructure services based upon a 21-year urban buildout time horizon (stormwater, wastewater, and water). Table 5-2 calculates the proposed uniform D.C. to be imposed on anticipated development in the City for City-wide services over a 21-year planning horizon. Table 5-3 calculates the proposed uniform D.C. to be imposed on anticipated development in the City for City-wide services over a 10-year planning horizon.

The calculation for residential development is generated on a per capita basis and is based upon five forms of housing types (singles and semi-detached, apartments 2+ bedrooms, apartments bachelor and 1-bedroom, special care/special dwelling units, and all other multiples). The non-residential D.C. has been calculated on a per sq.ft. of G.F.A. basis for all types of non-residential development (industrial, commercial, and institutional).

The D.C.-eligible costs for each service component were developed in Chapter 4 for all City services and classes, based on their proposed capital programs.

For the residential calculations, the total cost is divided by the "gross" (new resident) population to determine the per capita amount. The eligible D.C. cost calculations set out in Chapter 4 are based on the net anticipated population increase (the forecast new unit population less the anticipated decline in existing units). The cost per capita is then multiplied by the average occupancy of the new units (Appendix A, Schedule 5) to calculate the charge in Tables 5-1, 5-2 and 5-3.

With respect to non-residential development, the total costs in the uniform charge allocated to non-residential development (based on need for service) have been divided by the anticipated development over the planning period to calculate a cost per sq.ft. of G.F.A.

Table 5-4 summarizes the total D.C. that is applicable for municipal-wide services and Table 5-5 summarizes the gross capital expenditures and sources of revenue for works to be undertaken during the five-year life of the by-law.

Table 5-1
City of St. Catharines
Development Charge Calculation
Urban Area Services and Classes
2021 - Urban 21-Year Buildout

SERVICE/CLASS OF SERVICE		2021$ D.C.-Eligible Cost		2021$ D.C.-Eligible Cost	
		Residential	Non-Residential	S.D.U.	per sq.ft.
1. Stormwater Drainage and Control Services					
1.1 Channels, drainage and ponds		$999,580	$1,173,420	$109	$0.15
		$999,580	**$1,173,420**	**$109**	**$0.15**
2. Wastewater Services					
2.1 Distribution System		$1,204,464	$541,136	$132	$0.07
		$1,204,464	**$541,136**	**$132**	**$0.07**
3. Water Services					
3.1 Collection System		$323,748	$145,452	$35	$0.02
		$323,748	**$145,452**	**$35**	**$0.02**
TOTAL		**$2,527,792**	**$1,860,008**	**$276**	**$0.24**
D.C.-Eligible Capital Cost		$2,527,792	$1,860,008		
Buildout Gross Population/GFA Growth (sq,ft,)		26,858	7,764,000		
Cost Per Capita/Non-Residential GFA (sq.ft.)		**$94.12**	**$0.24**		
By Residential Unit Type	**P.P.U.**				
Single and Semi-Detached Dwelling	2.932	$276			
Other Multiples	2.151	$203			
Apartments - 2 Bedrooms +	2.129	$199			
Apartments - Bachelor and 1 Bedroom	1.455	$137			
Special Care/Special Dwelling Units	1.100	$104			

Table 5-2
City of St. Catharines
Development Charge Calculation
City-wide Services and Classes
2021-2041

SERVICE/CLASS OF SERVICE		2021$ D.C.-Eligible Cost		2021$ D.C.-Eligible Cost	
		Residential	Non-Residential	S.D.U.	per sq.ft.
4. Services Related to a Highway					
4.1 Services Related to a Highway		$5,692,007	$2,678,591	$620	$0.34
		$5,692,007	**$2,678,591**	**$620**	**$0.34**
5. Fire Protection Services					
5.1 Fire facilities, vehicles & equipment		$4,810,320	$2,263,680	$524	$0.28
		$4,810,320	**$2,263,680**	**$524**	**$0.28**
6. Public Works Facilities, Vehicles & Equipment					
6.1 Services Related to a Highway		$16,184	$7,616	$2	-
		$16,184	**$7,616**	**$2**	**-**
TOTAL		**$10,518,511**	**$4,949,887**	**$1,146**	**$0.62**
D.C.-Eligible Capital Cost		$10,518,511	$4,949,887		
20-Year Gross Population/GFA Growth (sq,ft,)		26,918	7,993,400		
Cost Per Capita/Non-Residential GFA (sq.ft.)		**$390.76**	**$0.62**		
By Residential Unit Type	**P.P.U.**				
Single and Semi-Detached Dwelling	2.932	$1,146			
Other Multiples	2.151	$840			
Apartments - 2 Bedrooms +	2.129	$831			
Apartments - Bachelor and 1 Bedroom	1.455	$569			
Special Care/Special Dwelling Units	1.100	$431			

Table 5-3
City of St. Catharines
Development Charge Calculation
City-wide Services and Classes
2021-2030

SERVICE/CLASS OF SERVICE		2021$ D.C.-Eligible Cost		2021$ D.C.-Eligible Cost	
		Residential	Non-Residential	S.D.U.	per sq.ft.
7. Transit Services					
7.1	Transit facilities, vehicles and other infrastructure	$2,658,282	$1,369,418	$674	$0.39
		$2,658,282	**$1,369,418**	**$674**	**$0.39**
8. Parks and Recreation Services					
8.1	Parkland development, park amenities, trails, recreation facilities, vehicles & equipment	$26,352,155	$1,386,956	$6,682	$0.41
		$26,352,155	**$1,386,956**	**$6,682**	**$0.41**
9. Library Services					
9.1	Library facilities, materials and vehicles	$2,979,200	$156,800	$755	$0.04
		$2,979,200	**$156,800**	**$755**	**$0.04**
10. Growth Studies					
10.1	Water Services	$87,780	$45,220	$22	$0.01
10.2	Wastewater Services	$274,952	$141,642	$70	$0.04
10.3	Stormwater Services	$216,267	$111,410	$55	$0.03
10.4	Services Related to a Highway	$442,990	$228,207	$112	$0.07
10.5	Transit Services	$59,569	$30,687	$15	$0.01
10.6	Fire Protection Services	$198,649	$102,335	$50	$0.03
10.7	Parks and Recration Services	$965,849	$497,558	$245	$0.14
10.8	Library Services	$153,973	$79,319	$39	$0.02
		$2,400,029	**$1,236,379**	**$608**	**$0.35**
TOTAL		**$34,389,666**	**$4,149,552**	**$8,719**	**$1.19**
D.C.-Eligible Capital Cost		$34,389,666	$4,149,552		
10-Year Gross Population/GFA Growth (sq,ft,)		11,564	3,487,300		
Cost Per Capita/Non-Residential GFA (sq.ft.)		**$2,973.86**	**$1.19**		
By Residential Unit Type	**P.P.U.**				
Single and Semi-Detached Dwelling	2.932	$8,719			
Other Multiples	2.151	$6,396			
Apartments - 2 Bedrooms +	2.129	$6,330			
Apartments - Bachelor and 1 Bedroom	1.455	$4,327			
Special Care/Special Dwelling Units	1.100	$3,271			

Table 5-4
City of St. Catharines
Development Charge Calculation
Total All Services and Classes

	2021$ D.C.-Eligible Cost		2021$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
Urban-wide Services/Classes 21 Year	$2,527,792	$1,860,008	$276	$0.24
Municipal-wide Services /Classes 21 Year	$10,518,511	$4,949,887	$1,146	$0.62
Municipal-wide Services/Classes 10 Year	$34,389,697	$4,149,568	$8,719	$1.19
TOTAL	**$47,436,000**	**$10,959,463**	**$10,141**	**$2.05**

Table 5-5
City of St. Catharines
Gross Expenditure and Sources of Revenue Summary
for Costs to be Incurred over the Life of the By-law

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	
		Other Deductions	Benefit to Existing	Other Funding		Residential	Non-Residential
1. Stormwater Drainage and Control Services							
1.1 Channels, drainage and ponds	$2,173,000	$0	$0	$0	$0	$999,580	$1,173,420
2. Wastewater Services							
2.1 Distribution System	$5,355,000	$0	$2,293,600	$2,625,000	$0	$301,116	$135,284
3. Water Services							
3.1 Collection System	$469,200	$0	$0	$0	$0	$323,748	$145,452
4. Services Related to a Highway							
4.1 Services Related to a Highway	$9,140,720	$0	$7,677,525	$0	$0	$994,973	$468,222
5. Fire Protection Services							
5.1 Fire facilities, vehicles & equipment	$24,745,000	$0	$18,190,000	$0	$0	$4,457,400	$2,097,600
6. Public Works Facilities, Vehicles & Equipment							
6.1 Services Related to a Highway	$0	$0	$0	$0	$0	$0	$0
7. Transit Services							
7.1 Transit facilities, vehicles and other infrastructure	$9,317,500	$0	$3,373,600	$3,626,150	$303,900	$1,329,141	$684,709
8. Parks and Recreation Services							
8.1 Parkland development, park amenities, trails, recreation facilities, vehicles & equipment	$16,266,500	$0	$11,589,500	$593,750	$0	$3,879,088	$204,163
9. Library Services							
9.1 Library facilities, materials and vehicles	$3,181,000	$0	$1,029,000	$0	$0	$2,044,400	$107,600
10. Growth Studies							
10.1 Water Services	$253,960	$721	$123,709	$0	$0	$85,490	$44,040
10.2 Wastewater Services	$718,340	$2,683	$312,000	$0	$0	$266,413	$137,243
10.3 Stormwater Services	$1,025,510	$3,341	$690,204	$0	$0	$219,097	$112,868
10.4 Services Related to a Highway	$741,900	$23,070	$330,437	$0	$0	$256,340	$132,054
10.5 Transit Services	$76,930	$6,192	$10,386	$0	$0	$39,833	$20,520
10.6 Fire Protection Services	$450,130	$10,876	$190,742	$0	$0	$164,018	$84,494
10.7 Parks and Recration Services	$1,264,840	$42,646	$313,779	$0	$0	$599,554	$308,861
10.8 Library Services	$299,920	$4,823	$93,840	$0	$0	$132,830	$68,427
Total Expenditures & Revenues	**$75,479,450**	**$94,352**	**$46,218,322**	**$6,844,900**	**$303,900**	**$16,093,019**	**$5,924,957**

Chapter 6
D.C. Policy Recommendations and D.C. By-law Rules

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

6.1 Introduction

Subsection 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 the section goes on to state that the rules may provide for exemptions, phasing in and/or indexing of D.C.s.

Subsection 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 s. 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.

With respect to "the rules," s. 6 states that a D.C. by-law must expressly address the matters referred to above re s. 5 (1) paragraphs 9 and 10, as well as how the rules apply to the redevelopment of land.

The rules provided are based on the City's existing policies; with consideration for the recent changes to the D.C.A. However, there are items under consideration at this time and these may be refined prior to adoption of the by-law.

6.2 D.C. By-law Structure

It is recommended that:

- classes of services be established for public works and growth studies;
- the City uses a uniform City-wide D.C. calculation for all municipal services and classes except stormwater services, wastewater services, and water services;
- stormwater services, wastewater services, and water services be imposed on the urban service areas of the City; and
- one municipal D.C. by-law be used for all services and classes of services referenced above.

6.3 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 s. 6 of the D.C.A.

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

6.3.1 Payment in any Particular Case

In accordance with the D.C.A., 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 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 9 of the *Condominium Act, 1998*; or
>
> (g) the issuing of a permit under the *Building Code Act, 1992* in relation to a building or structure."

6.3.2 Determination of the Amount of the Charge

The following conventions 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 decade. 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 municipal circumstance, e.g.

    - for growth studies, the costs have been based on a population vs. employment growth ratio (66%/34%) for residential and non-residential uses, respectively over the 10-year forecast period;
    - for parks and recreation and library services, a 5% non-residential attribution has been made to recognize use by the non-residential sector;
    - for services related to a highway, fire protection services, and public works operations a 68% residential/32% non-residential attribution has been made based on a population vs. employment growth ratio over the 21-year forecast period;
    - for transit services, the costs have been based on a population vs. employment growth ratio (66%/34%) for residential and non-residential uses, respectively over the 10-year forecast period;
    - For wastewater and water services, the costs have been based on a population vs. employment ratio (69%/31%) growth over the urban 21-year buildout forecast period; and
    - For stormwater services, the costs have been shared 46%/54% between residential and non-residential based on the benefiting lands associated with the stormwater management works over the urban 21-year buildout forecast period.

6.3.3 Application to Redevelopment of Land (Demolition and Conversion)

Where, as a result of the redevelopment of land, a building or structure existing on the same land within three years prior to the date of payment of D.C.s in regard to such

redevelopment was, or is to be demolished, in whole or in part, or converted from one principal use to another principal use on the same land, in order to facilitate the redevelopment, the D.C.s otherwise payable with respect to such redevelopment shall be reduced by the following amounts:

1) the number of dwelling units demolished/converted multiplied by the relevant D.C.s when the D.C.s are calculated with respect to the redevelopment;

2) the G.F.A. of the building demolished/converted multiplied by the relevant D.C.s when the D.C.s are calculated with respect to the redevelopment.

The credit can, in no case, exceed the amount of D.C.s that would otherwise be payable.

For brownfield redevelopment, the demolition credits will be extended by five years, for a total of eight years from demolition permit issuance.

In addition, a transition policy for demolition credits will be provided for any demolition permit issued from January 1, 2010 to December 31, 2021. These shall be treated as if the demolition permit was issued on January 1, 2021 for the purpose of determining a demolition credit under the D.C. By-law.

6.3.4 Exemptions (full or partial)

a) Statutory exemptions:

- 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 (s. 4 (3) of the D.C.A.);
- buildings or structures owned by and used for the purposes of any municipality, local board, or Board of Education (section 3);
- 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); and

- residential development in new dwellings: development that includes the creation of up to two detached dwelling units (based on prescribed limits set out in section 2 of O. Reg. 82/98).
- 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 is exempt from development charges imposed under the Development Charges Act, 1997 if the development in respect of which development charges would otherwise be payable is intended to be occupied and used by the university. 2020, c. 34, Sched. 10, s. 1.

b) Non-statutory exemptions:

- Agricultural buildings excluding farm help houses, all greenhouse uses related to Cannabis, and any greenhouse areas related to processing, packaging, and retail;
- Places of Worship for the portion which is used exclusively for worship for religious services and any reception and meeting areas used in connection with, or integral to the worship spaces but excludes areas used for daycares, private schools, and other profit generating services.
- Detached Accessory Dwelling Units are treated the same as attached accessory dwelling units, as long as the accessory dwelling unit is no larger than the smallest existing unit;
- Affordable Housing developments where:
    a. the lands and buildings are used or intended to be used as municipal housing project facilities, as set out in section 110 of the Municipal Act, 2001, S.O. 2001 c. 25, O.Reg.603/06 under the Municipal Act 2001, and the Region's Municipal Housing Facility By-law, all as may be amended;
    b. lands and buildings used for affordable housing projects that receive funding through an agreement with Niagara Regional Housing or a department or designated agency of the Niagara Region, provided that:
        (i) this exemption shall only apply to that proportion or number of units in a development which are designated or identified as affordable housing; and

(ii) the owner of the lands continues to use the lands and buildings for affordable housing. If the owner ceases to use the proportionate share of the lands and buildings for affordable housing, the development charges exempted under this section shall become due and payable. The owner shall be required to enter into an agreement with the Region under section 27 of the Act respecting the timing and calculation of payment of development charges, notice of which the owner shall register on the title to the lands at its sole cost and expense with the intention that the provisions shall bind and run with title to the lands.

6.3.5 Grant Programs:

- Industrial Grant Program: Notwithstanding the non-residential D.C.s related in industrial developments, as set out in the D.C. by-law, the City shall, during the life of this by-law, maintain a grant program that shall be used to provide a grant towards any industrial D.C. payable, in accordance with development charge grant program approved by the City.
- Affordable Housing Developments: Notwithstanding the residential D.C.s as outlined in the D.C. by-law, a grant program related to affordable housing development shall be maintained by the City to provide a grant towards any residential D.C. payable, in accordance with the development charges grant program approved by the City.
- Urban Growth Centre – Notwithstanding the D.C.s applicable, as set out in the D.C. by-law, a grant program applicable to the urban growth centre shall be maintained by the City to provide a grant towards the D.C. payable in accordance with the development charges grant program approved by the City.

6.3.6 Phasing in

No provisions for phasing in the D.C. are provided in the D.C. by-law.

6.3.7 Timing of Collection

The D.C.s for all services and classes are payable upon issuance of the first 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. or as otherwise provided for in the D.C.A.

Rental housing and institutional developments will pay D.C.s in six equal annual payments commencing at occupancy. Non-profit housing developments will pay D.C.s in 21 equal annual payments commencing at occupancy. Moreover, the D.C. amount for all developments occurring within 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 calculated based on the City's Policy, as may be amended from time to time.

6.3.8 Indexing

Indexing of the D.C.s shall be implemented annually on January 1st of each year, commencing from by-law passage and every year thereafter, in accordance with the Statistics Canada Quarterly, Non-Residential Building Construction Price Index (Table 18-10-0135-01)[1] for the most recent year-over-year period.

6.3.9 The Applicable Areas

The charges developed herein provide for varying charges within the City, as follows:

- all municipal-wide services/classes - the full residential and non-residential charges will be imposed on all lands within the City; and
- water, wastewater, and stormwater – the full residential and non-residential charge will be imposed on the urban service areas of the City.

[1] O. Reg. 82/98 referenced "The Statistics Canada Quarterly, Construction Price Statistics, catalogue number 62-007" as the index source. Since implementation, Statistics Canada has modified this index twice and the above-noted index is the most current. The draft by-law provided herein refers to O. Reg. 82/98 to ensure traceability should this index continue to be modified over time.

6.4 Other D.C. By-law Provisions

It is recommended that:

6.4.1 Categories of Services/Classes for Reserve Fund and Credit Purposes

The City's D.C. collections are currently reserved in 2 separate reserve funds for each of the following: Services Related to a Highway and Parks and Recreation Services.

It is recommended that the City create new reserve funds for: Public Works, Transit Services, Fire Protection Services, Library Services, Growth Studies, Water Services, Wastewater Services and Stormwater Services.

Appendix D outlines the reserve fund policies that the City is required to follow as per the D.C.A.

6.4.2 By-law In-force Date

A by-law under the D.C.A. may come into force as early as the day after which the by-law is passed by Council. Currently the draft by-law is anticipated to come into effect on January 3, 2022 (rates will be indexed on January 1, 2022).

6.4.3 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).

6.4.4 Area Rating

As noted earlier, Bill 73 has introduced two new sections where Council must consider the use of area-specific charges:

1. Section 2 (9) of the Act now requires a municipality to implement area-specific D.C.s for either specific services that are prescribed and/or for specific municipalities that are to be regulated (note that at this time, no municipalities or services are prescribed by the Regulations).

2. Section 10 (2) c.1 of the D.C.A. requires that "the development charges background study shall include consideration of the use of more than one development charge by-law to reflect different needs for services in different areas."

In regard to the first item, there are no services or specific municipalities identified in the regulations that must be area rated. The second item requires Council to consider the use of area rating.

It is recommended that the City's by-law provide for stormwater, wastewater, and water services on an urban area basis. All other City services are to be recovered based on a uniform, City-wide basis. There have been several reasons why area-rating has not been imposed on these services, including:

1. All City services, with the exception of stormwater, wastewater, and water, require that the average 10-year service standard be calculated. This average service standard multiplied by growth in the City, establishes an upper ceiling on the amount of funds that can be collected from all developing landowners. Section 4 (4) of O. Reg. 82/98 provides that "if a development charge by-law applies to a part of the municipality, the level of service and average level of service cannot exceed that which would be determined if the by-law applied to the whole municipality." Put in layman terms, the average service standard multiplied by the growth within the specific area would establish an area-specific ceiling which would significantly reduce the total revenue recoverable for the City hence potentially resulting in D.C. revenue shortfalls and impacts on property taxes.

2. Expanding on item 1, attempting to impose an area charge potentially causes equity issues in transitioning from a City-wide approach to an area-specific approach. For example, if all services were now built (and funded) within Area A (which is 75% built out) and this was funded with some revenues from Areas B and C, moving to an area-rating approach would see Area A contribute no funds to the costs of services in Areas B and C. The D.C.s would be lower in Area A (as all services are now funded) and higher in Areas B and C. As well, funding shortfalls may then potentially encourage the municipality to provide less services to Areas B and C due to reduced revenue.

3. Many services that are provided (roads, parks & recreation facilities) are not restricted to one specific area and are often used by all residents. For example, arenas located in different parts of the City will be used by residents from all areas depending on the programing of the facility (i.e. a public skate is available each night, but at a different arena; hence usage of any one facility at any given time is based on programming availability).

For the reasons noted above, it is recommended that Council calculate the charges on a uniform City-wide basis for all services/classes of services other than stormwater, wastewater, and water services, which are recommended to be imposed on an urban area basis.

6.5 Other Recommendations

It is recommended that Council:

"Whenever appropriate, request that grants, subsidies and other contributions be clearly designated by the donor as being to the benefit of existing development or new development, as applicable;"

"Adopt the assumptions contained herein as an 'anticipation' with respect to capital grants, subsidies and other contributions;"

"Classes of service be established for growth studies and public works (facilities, vehicles and equipment);"

"Adopt the D.C. approach to calculate the services on a uniform City-wide basis (except for stormwater, wastewater and water services);"

"Adopt the D.C. approach to calculate the stormwater, wastewater and water charges on an area-specific basis;"

"Approve the capital project listing set out in Chapter 4 of the D.C.s Background Study dated June 2, 2021, subject to further annual review during the capital budget process;"

"Approve the D.C. Background Study dated June 2, 2021, as amended (if applicable);"

"Determine that no further public meeting is required;" and

"Approve the D.C. by-law as set out in Appendix H."

Chapter 7 By-law Implementation

7. By-law Implementation

7.1 Public Consultation Process

7.1.1 Introduction

This chapter addresses the mandatory, formal public consultation process (section 7.1.2), as well as the optional, informal consultation process (section 7.1.3). The latter is designed to seek the co-operation and participation of those involved, in order to produce the most suitable policy. Section 7.1.4 addresses the anticipated impact of the D.C. on development from a generic viewpoint.

7.1.2 Public Meeting of Council

Section 12 of the D.C.A. 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, Council must determine whether a further meeting (under this section) is necessary (i.e. if the proposed by-law which is proposed for adoption has been changed in any respect, 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 (LPAT) (formerly the Ontario Municipal Board (O.M.B.)).

7.1.3 Other Consultation Activity

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

1. The first grouping is 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 City 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.

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 City D.C. policy. Their primary concern is frequently with the quantum of the charge, G.F.A. exclusions such as basements, mechanical or indoor parking areas, or exemptions and phase-in or capping provisions in order to moderate the impact.

7.2 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 housing prices and can impact project feasibility in some cases (e.g. rental apartments).

On the other hand, D.C.s or other City 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.

7.3 Implementation Requirements

7.3.1 Introduction

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 sections that follow present an overview of the requirements in each case.

7.3.2 Notice of Passage

In accordance with s. 13 of the D.C.A., when a D.C. by-law is passed, the City 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 no 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;
- subsection 10 (4) lists the persons/organizations who must be given notice; and
- subsection 10 (5) lists the eight items that the notice must cover.

7.3.3 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 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 LPAT, 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.

7.3.4 Appeals

Sections 13 to 19 of the D.C.A. set out the requirements relative to making and processing a D.C. by-law appeal and LPAT hearing in response to an appeal. Any person or organization may appeal a D.C. by-law to the LPAT by filing a notice of appeal with the City 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.

The City is carrying out a public consultation process in order to address the issues that come forward as part of that process, thereby avoiding or reducing the need for an appeal to be made.

7.3.5 Complaints

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

- the amount of the charge was incorrectly determined;
- the reduction 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. 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 City Council to the LPAT.

7.3.6 Credits

Sections 38 to 41 of the D.C.A. set out a number of credit requirements, which apply where a City 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.

7.3.7 Front-Ending Agreements

The City and one or more landowners may enter into a front-ending agreement that provides for the costs of a project that 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. (sections 44 to 58) addresses front-ending agreements and removes some of the obstacles to their use which were contained in the *Development Charges Act,* 1989. Accordingly, the City assesses whether this mechanism is appropriate for its use, as part of funding projects prior to City funds being available.

7.3.8 Severance and Subdivision Agreement Conditions

Section 59 of the D.C.A. 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*;" and
- "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. 59 (4) of the D.C.A. requires that the municipal approval authority for a draft plan of subdivision under 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 City in question is a commenting agency, in order to comply with s. 59 (4) of the D.C.A. it would need to provide to the approval authority information regarding the applicable City D.C.s related to the site.

If the City is an approval authority for the purposes of s. 51 of the *Planning Act*, it would be responsible to ensure that it collects information from all entities that 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

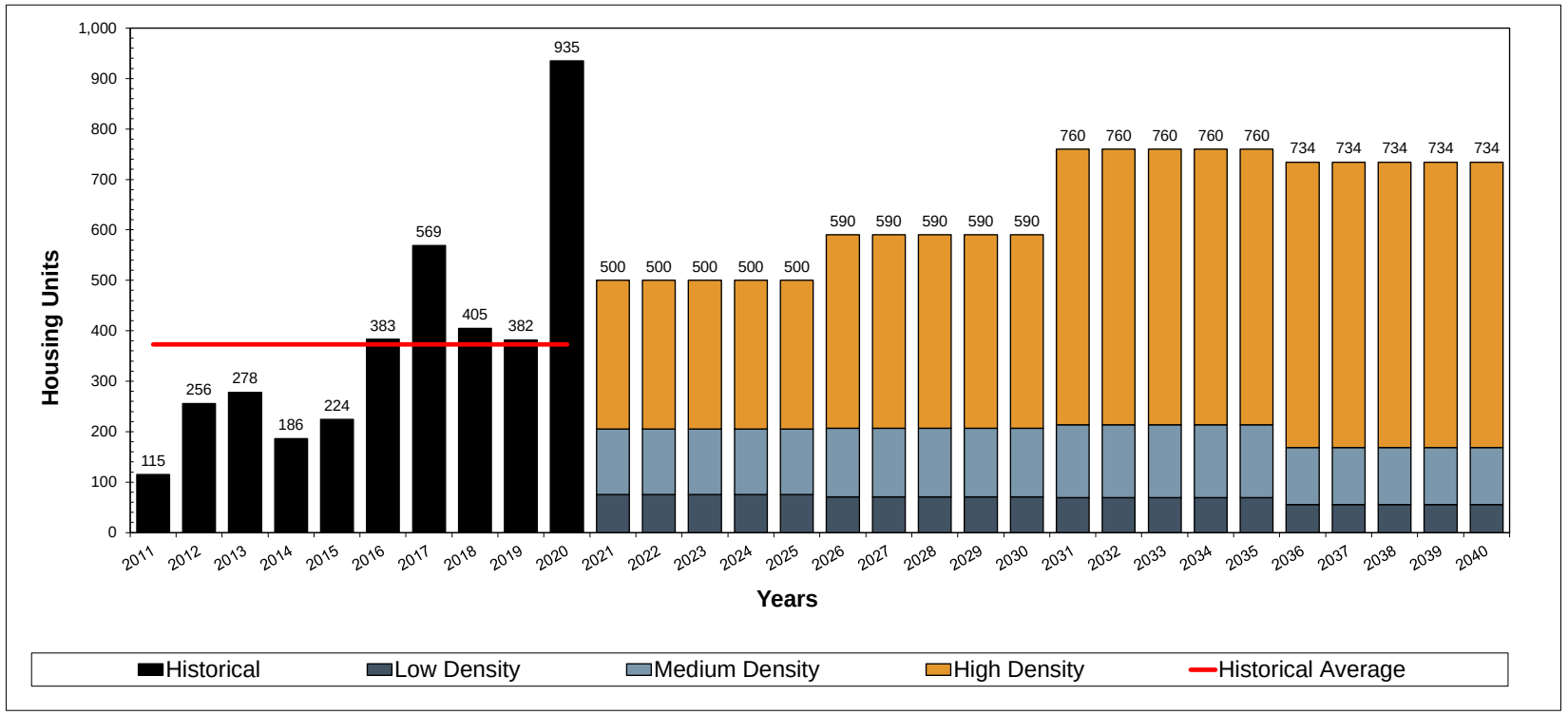
Schedule 1
City of St. Catharines
Residential Growth Forecast Summary

	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 2006*	135,330	131,989	2,359	129,630	34,685	6,455	13,185	415	54,740	2,145	2.411
	Mid 2011	134,720	131,400	2,630	128,770	35,465	6,539	13,137	278	55,419	2,391	2.371
	Mid 2016	136,480	133,113	3,263	129,850	35,670	6,995	13,905	305	56,875	2,966	2.340
Forecast	*Mid 2021*	141,370	137,886	3,390	134,496	36,110	7,848	15,286	305	59,549	3,082	2.316
	Mid 2031	151,850	148,099	3,630	144,469	36,839	9,177	18,679	305	64,999	3,300	2.278
	Mid 2041	168,010	163,865	4,017	159,848	37,459	10,469	24,235	305	72,469	3,652	2.261
Incremental	**Mid 2006 - Mid 2011**	**-610**	**-589**	**271**	**-860**	**780**	**84**	**-48**	**-137**	**679**	**246**	
	Mid 2011 - Mid 2016	**1,760**	**1,713**	**633**	**1,080**	**205**	**456**	**768**	**27**	**1,456**	**575**	
	Mid 2016 - Mid 2021	**4,890**	**4,773**	**127**	**4,646**	**440**	**853**	**1,381**	**0**	**2,674**	**116**	
	Mid 2021 - Mid 2031	**10,480**	**10,213**	**240**	**9,973**	**729**	**1,329**	**3,393**	**0**	**5,450**	**218**	
	Mid 2021 - Mid 2041	**26,640**	**25,979**	**627**	**25,352**	**1,349**	**2,621**	**8,949**	**0**	**12,920**	**570**	

Source: Derived from Niagara Region Municipal Comprehensive Review – Draft Updated Forecasts and Local Growth Allocations (July 2018, Hemson Memo) forecast for the City of St. Catharines, Niagara Region Municipal Comprehensive Review - Review and Update of MCR Forecast Allocations and Land Needs Assessment Results (September 2019, Hemson Memo) forecast for the City of St. Catharines, and City of St. Catharines 2016 to 2041 Traffic Zone Population, Housing and Employment Forecast (June 2020, City of St. Catharines) by Watson & Associates Economists Ltd., 2021.

[1] Census undercount estimated at approximately 2.5%. Note: Population including the undercount has been rounded.
[2] Includes townhouses and apartments in duplexes.
[3] Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Figure A-1
City of St. Catharines
Annual Housing Forecast



Source: Historical housing activity derived from City of St. Catharines building permit data, 2011-2020.
[1] Growth forecast represents calendar year.

Schedule 2
City of St. Catharines
Estimate of the Anticipated Amount, Type and Location of Residential Development for Which Development Charges can be Imposed

Development Location	Timing	Single & Semi-Detached	Multiples[1]	Apartments[2]	Total Residential Units	Gross Population In New Units	Existing Unit Population Change	Net Population Increase, Excluding Institutional	Institutional Population	Net Population Including Institutional
Urban	2021 - 2031	719	1,329	3,393	5,440	11,295	-1,328	9,967	240	10,207
	2021 - 2041	1,329	2,621	8,949	12,900	26,231	-923	25,308	627	25,935
Rural	2021 - 2031	10	0	0	10	29	-23	6	0	6
	2021 - 2041	20	0	0	20	60	-16	44	0	44
City of St. Catharines	2021 - 2031	729	1,329	3,393	5,450	11,324	-1,351	9,973	240	10,213
	2021 - 2041	1,349	2,621	8,949	12,920	26,291	-939	25,352	627	25,979

Watson & Associates Economists Ltd., 2021.

[1] Includes townhouses and apartments in duplexes.

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

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

Schedule 3
City of St. Catharines
Current Year Growth Forecast
Mid-2016 to Mid 2021

			Population
Mid 2016 Population			133,113
Occupants of New Housing Units, Mid 2016 to Mid 2021	*Units (2)*	2,674	
	multiplied by P.P.U. (3)	2.044	
	gross population increase	5,467	5,467
Occupants of New Equivalent Institutional Units, Mid 2016 to Mid 2021	*Units*	116	
	multiplied by P.P.U. (3)	1.100	
	gross population increase	127	127
Decline in Housing Unit Occupancy, Mid 2016 to Mid 2021	*Units (4)*	56,875	
	multiplied by P.P.U. decline rate (5)	-0.014	
	total decline in population	-821	-821
Population Estimate to Mid 2021			137,886
Net Population Increase, Mid 2016 to Mid 2021			*4,773*

(1) 2016 population based on Statistics Canada Census unadjusted for Census undercount.

(2) Estimated residential units constructed, Mid-2016 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	3.042	16%	0.501
Multiples (6)	2.160	32%	0.689
Apartments (7)	1.655	52%	0.855
Total		100%	2.044

[1] Based on 2016 Census custom database

[2] Based on Building permit/completion activity

(4) 2016 households taken from Statistics Canada Census.

(5) Decline 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 St. Catharines
Ten Year Growth Forecast
Mid-2021 to Mid-2031

			Population
Mid 2021 Population			137,886
Occupants of New Housing Units, Mid 2021 to Mid 2031	*Units (2)*	5,450	
	multiplied by P.P.U. (3)	2.078	
	gross population increase	11,324	11,324
Occupants of New Equivalent Institutional Units, Mid 2021 to Mid 2031	*Units*	218	
	multiplied by P.P.U. (3)	1.100	
	gross population increase	240	240
Decline in Housing Unit Occupancy, Mid 2021 to Mid 2031	*Units (4)*	59,549	
	multiplied by P.P.U. decline rate (5)	-0.023	
	total decline in population	-1,351	-1,351
Population Estimate to Mid 2031			148,099
Net Population Increase, Mid 2021 to Mid 2031			*10,213*

(1) Mid 2021 Population based on:

2016 Population (133,113) + Mid 2016 to Mid 2021 estimated housing units to beginning of forecast period (2,674 x 2.044 = 5,467) + (116 x 1.1 = 127) + (56,875 x -0.014 = -821) = 137,886

(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	2.932	13.4%	0.392
Multiples (6)	2.151	24.4%	0.524
Apartments (7)	1.866	62.2%	1.161
one bedroom or less	1.455		
two bedrooms or more	2.129		
Total		100.0%	2.078

[1] Persons per unit based on adjusted Statistics Canada Custom 2016 Census database.

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

(4) Mid 2021 households based upon 2016 Census (56,875 units) + Mid 2016 to Mid 2021 unit estimate (2,674 units) = 59,549 units.

(5) Decline 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 St. Catharines
2041 Growth Forecast
Mid-2021 to Mid 2041

			Population
Mid 2021 Population			137,886
Occupants of New Housing Units, Mid 2021 to Mid 2041	*Units (2)*	12,920	
	multiplied by P.P.U. (3)	2.035	
	gross population increase	26,291	26,291
Occupants of New Equivalent Institutional Units, Mid 2021 to Mid 2041	*Units*	570	
	multiplied by P.P.U. (3)	1.100	
	gross population increase	627	627
Decline in Housing Unit Occupancy, Mid 2021 to Mid 2041	*Units (4)*	59,549	
	multiplied by P.P.U. decline rate (5)	-0.016	
	total decline in population	-939	-939
Population Estimate to Mid 2041			163,865
Net Population Increase, Mid 2021 to Mid 2041			*25,979*

(1) Mid 2021 Population based on:

2016 Population (133,113) + Mid 2016 to Mid 2021 estimated housing units to beginning of forecast period (2,674 x 2.044 = 5,467) + (116 x 1.1 = 127) + (56,875 x -0.014 = -821) = 137,886

(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	2.932	10.4%	0.306
Multiples (6)	2.151	20.3%	0.436
Apartments (7)	1.866	69.3%	1.292
one bedroom or less	1.455		
two bedrooms or more	2.129		
Total		100.0%	2.035

[1] Persons per unit based on Statistics Canada Custom 2016 Census database.

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

(4) Mid 2021 households based upon 2016 Census (56,875 units) + Mid 2016 to Mid 2021 unit estimate (2,674 units) = 59,549 units.

(5) Decline 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 6
City of St. Catharines
Historical Residential Building Permits
Years 2011 to 2020

Year	Residential Building Permits			
	Singles & Semi-Detached	Multiples[1]	Apartments[2]	Total
2011	61	21	33	115
2012	70	59	127	256
2013	97	96	85	278
2014	108	43	35	186
2015	103	83	38	224
Sub-total	439	302	318	1,059
Average (2011 - 2015)	***88***	***60***	***64***	***212***
% Breakdown	41.5%	28.5%	30.0%	100.0%
2016	112	106	165	383
2017	125	245	199	569
2018	71	146	188	405
2019	68	196	118	382
2020	64	160	711	935
Sub-total	440	853	1,381	2,674
Average (2016 - 2020)	***88***	***171***	***276***	***535***
% Breakdown	16.5%	31.9%	51.6%	100.0%
2011 - 2020 Total	879	1,155	1,699	3,733
Average	***88***	***116***	***170***	***373***
% Breakdown	23.5%	30.9%	45.5%	100.0%

Source: Historical housing activity derived from City of St. Catharines building permit data, 2011-2020.

[1] Includes townhouses and apartments in duplexes.

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

Schedule 7
City of St. Catharines
Persons Per Unit by Age and Type of Dwelling
(2016 Census)

Age of Dwelling	Singles and Semi-Detached							
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total	25 Year Average	25 Year Average Adjusted[3]
1-5	-	-	1.875	3.169	-	**3.042**		
6-10	-	-	1.850	2.959	-	**2.922**		
11-15	-	-	1.952	3.200	4.208	**3.213**		
16-20	-	-	2.077	2.844	3.955	**2.852**		
20-25	-	-	1.952	2.965	3.667	**2.930**	2.992	2.932
25-35	-	-	2.129	2.809	3.563	**2.822**		
35+	0.545	1.353	1.805	2.560	3.726	**2.464**		
Total	**0.529**	**1.331**	**1.826**	**2.637**	**3.822**	**2.557**		

Age of Dwelling	Multiples[1]							
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total	25 Year Average	25 Year Average Adjusted[3]
1-5	-	-	1.600	3.053	-	**2.160**		
6-10	-	-	1.778	2.236	-	**2.011**		
11-15	-	-	1.739	2.240	-	**2.058**		
16-20	-	-	1.975	2.653	-	**2.393**		
20-25	-	-	1.721	2.806	-	**2.339**	2.192	2.151
25-35	-	-	1.966	2.550	-	**2.321**		
35+	-	1.137	1.844	2.666	3.500	**2.241**		
Total	**-**	**1.104**	**1.835**	**2.622**	**3.537**	**2.246**		

Age of Dwelling	Apartments[2]							
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total	25 Year Average	25 Year Average Adjusted[3]
1-5	-	1.318	1.690	-	-	**1.655**		
6-10	-	1.250	1.765	-	-	**1.786**		
11-15	-	1.500	1.689	-	-	**1.618**		
16-20	-	1.250	1.915	3.133	-	**1.826**		
20-25	-	1.270	1.787	3.625	-	**1.737**	1.724	1.866
25-35	-	1.253	1.752	2.871	-	**1.627**		
35+	1.040	1.203	1.760	2.570	-	**1.565**		
Total	**1.065**	**1.224**	**1.763**	**2.726**	**2.583**	**1.603**		

Age of Dwelling	All Density Types					
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total
1-5	-	1.300	1.694	3.100	4.917	**2.429**
6-10	-	1.261	1.795	2.747	-	**2.421**
11-15	-	1.517	1.775	3.057	4.417	**2.695**
16-20	-	1.217	1.938	2.786	3.870	**2.421**
20-25	-	1.271	1.793	2.973	3.926	**2.365**
25-35	-	1.267	1.822	2.773	3.397	**2.340**
35+	1.379	1.221	1.789	2.564	3.643	**2.239**
Total	**1.289**	**1.237**	**1.796**	**2.635**	**3.736**	**2.283**

[1] Includes townhouses and apartments in duplexes.

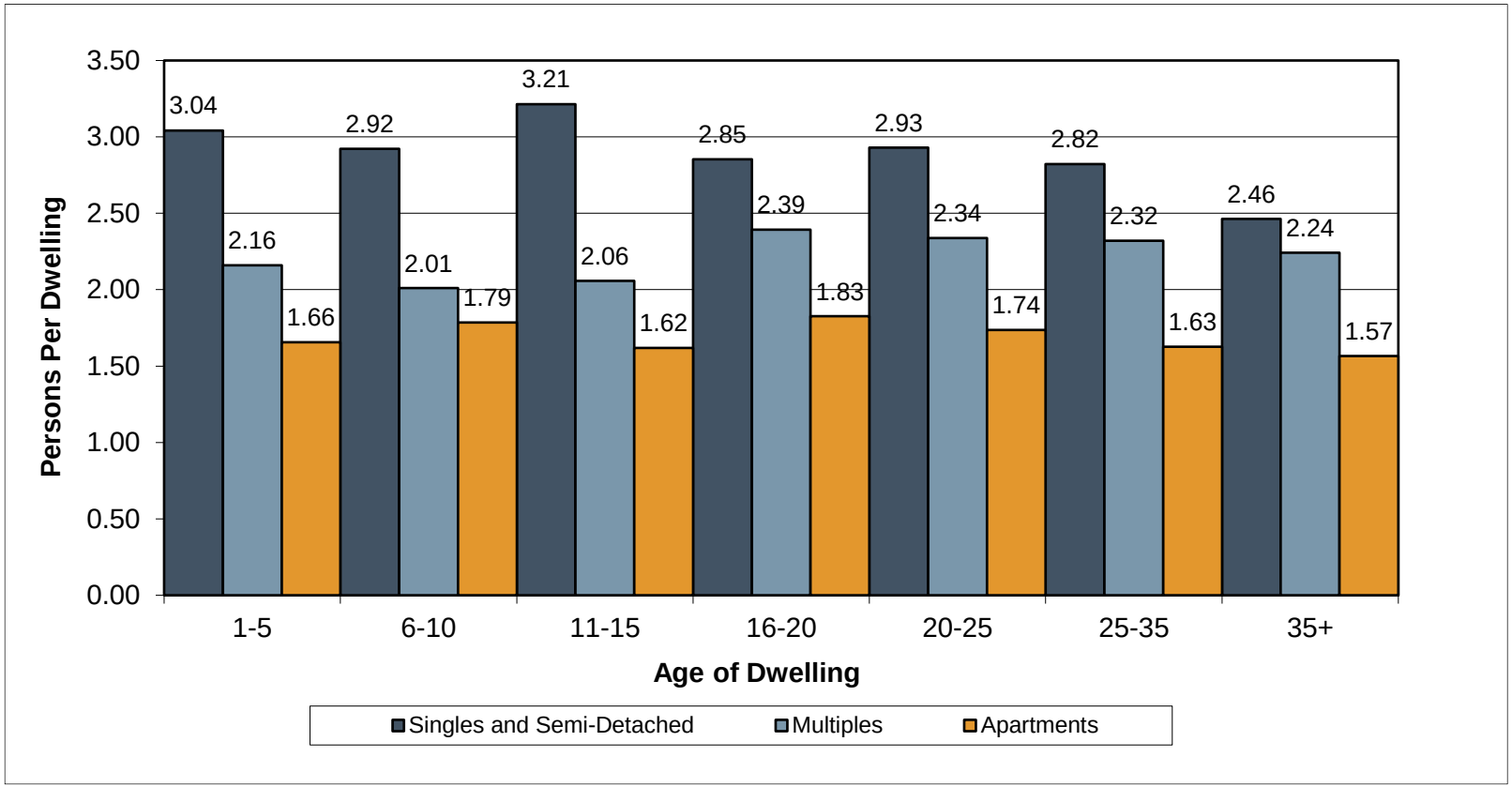
[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

[3] Adjusted based on 2001-2016 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 St. Catharines
Person Per Unit Structural Type and Age of Dwelling
(2016 Census)



Schedule 9a
City of St. Catharines
Employment Forecast, 2021 to 2041

Period	Population	Activity Rate								Employment								Employment
		Primary	Work at Home	Industrial	Commercial/ Population Related	Institutional	Total	N.F.P.O.W.[1]	Total Including NFPOW	Primary	Work at Home	Industrial	Commercial/ Population Related	Institutional	Total	N.F.P.O.W.[1]	Total Employment (Including N.F.P.O.W.)	Total (Excluding Work at Home and N.F.P.O.W.)
Mid 2006	131,989	0.005	0.025	0.123	0.193	0.106	0.453	0.049	0.502	665	3,355	16,238	25,428	14,055	59,740	6,489	66,229	56,385
Mid 2011	131,400	0.004	0.025	0.085	0.179	0.116	0.409	0.050	0.459	525	3,315	11,123	23,543	15,205	53,710	6,591	60,301	50,395
Mid 2016	133,113	0.005	0.027	0.076	0.180	0.125	0.412	0.055	0.467	650	3,570	10,078	23,898	16,655	54,850	7,284	62,134	51,280
Mid 2021	137,886	0.005	0.028	0.074	0.182	0.124	0.414	0.056	0.470	698	3,836	10,240	25,156	17,149	57,079	7,683	64,762	53,243
Mid 2031	148,099	0.005	0.030	0.076	0.187	0.127	0.425	0.058	0.483	723	4,416	11,316	27,676	18,826	62,957	8,592	71,549	58,541
Mid 2041	163,865	0.004	0.031	0.078	0.189	0.129	0.431	0.059	0.490	735	5,076	12,707	30,942	21,158	70,618	9,622	80,240	65,542
Incremental Change																		
Mid 2006 - Mid 2011	-589	-0.001	0.000	-0.038	-0.013	0.009	-0.044	0.001	-0.043	-140	-40	-5,115	-1,885	1,150	-6,030	102	-5,928	-5,990
Mid 2011 - Mid 2016	1,713	0.0009	0.0016	-0.0089	0.0004	0.0094	0.0033	0.0046	0.0079	125	255	-1,045	355	1,450	1,140	693	1,833	885
Mid 2016 - Mid 2021	4,773	0.0002	0.0010	-0.0014	0.0029	-0.0008	0.0019	0.0010	0.0029	48	266	163	1,259	494	2,229	399	2,628	1,963
Mid 2021 - Mid 2031	10,213	-0.0002	0.0020	0.0021	0.0044	0.0028	0.0111	0.0023	0.0134	25	580	1,076	2,520	1,677	5,878	909	6,787	5,298
Mid 2021 - Mid 2041	25,979	-0.0006	0.0032	0.0033	0.0064	0.0048	0.0170	0.0030	0.0200	37	1,240	2,467	5,786	4,009	13,539	1,939	15,478	12,299
Annual Average																		
Mid 2006 - Mid 2011	-118	-0.0002	0.0000	-0.0077	-0.0027	0.0018	-0.0088	0.0002	-0.0086	-28	-8	-1,023	-377	230	-1,206	20	-1,186	-1,198
Mid 2011 - Mid 2016	343	0.0002	0.0003	-0.0018	0.0001	0.0019	0.0007	0.0009	0.0016	25	51	-209	71	290	228	139	367	177
Mid 2016 - Mid 2021	955	0.0000	0.0002	-0.0003	0.0006	-0.0002	0.0004	0.0002	0.0006	10	53	33	252	99	446	80	526	393
Mid 2021 - Mid 2031	1,021	0.0000	0.0002	0.0002	0.0004	0.0003	0.0011	0.0002	0.0013	3	58	108	252	168	588	91	679	530
Mid 2021 - Mid 2041	1,299	0.0000	0.0002	0.0002	0.0003	0.0002	0.0008	0.0002	0.0010	2	62	123	289	200	677	97	774	615

Source: Derived from Niagara Region Municipal Comprehensive Review – Draft Updated Forecasts and Local Growth Allocations (July 2018, Hemson Memo) forecast for the City of St. Catharines, Niagara Region Municipal Comprehensive Review - Review and Update of MCR Forecast Allocations and Land Needs Assessment Results (September 2019, Hemson Memo) forecast for the City of St. Catharines, and City of St. Catharines 2016 to 2041 Traffic Zone Population, Housing and Employment Forecast (June 2020, City of St. Catharines) by Watson & Associates Economists Ltd., 2021.

[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.

Schedule 9b
City of St. Catharines
Employment and Gross Floor Area (G.F.A.) Forecast, 2020 to 2041

Period	Population	Employment					Gross Floor Area in Square Feet (Estimated)[1]				
		Primary[2]	Industrial	Commercial/ Population Related	Institutional[3]	Total	Primary	Industrial	Commercial/ Population Related	Institutional	Total
Mid 2006	131,989	665	16,238	25,428	14,055	56,385					
Mid 2011	131,400	525	11,123	23,543	15,205	50,395					
Mid 2016	133,113	650	10,078	23,898	16,655	51,280					
Mid 2021	137,886	698	10,240	25,156	17,090	53,184					
Mid 2031	148,099	723	11,316	27,676	18,655	58,370					
Mid 2041	163,865	735	12,707	30,942	20,807	65,191					
Incremental Change											
Mid 2006 - Mid 2011	-589	-140	-5,115	-1,885	1,150	-5,990					
Mid 2011 - Mid 2016	1,713	125	-1,045	355	1,450	885					
Mid 2016 - Mid 2021	4,773	48	163	1,259	435	1,904					
Mid 2021 - Mid 2031	10,213	25	1,076	2,520	1,565	5,186	100,000	1,183,600	1,134,000	1,069,700	3,487,300
Mid 2021 - Mid 2041	25,979	37	2,467	5,786	3,717	12,007	148,000	2,713,700	2,603,700	2,528,000	7,993,400
Annual Average											
Mid 2006 - Mid 2011	-118	-28	-1,023	-377	230	-1,198					
Mid 2011 - Mid 2016	343	25	-209	71	290	177					
Mid 2016 - Mid 2021	955	10	33	252	87	381					
Mid 2021 - Mid 2031	1,021	3	108	252	157	519	20,000	118,360	113,400	106,970	348,730
Mid 2021 - Mid 2041	1,299	2	123	289	186	600	7,400	135,685	130,185	126,400	399,670

Source: Watson & Associates Economists Ltd., 2021.

[1] Square Foot Per Employee Assumptions

Primary	4,000
Industrial	1,100
Commercial/ Population Related	450
Institutional	680

[2] Primary industry includes bona-fide and non bona-fide farming which can include cannabis growing operation related employment.

[3] Forecast institutional employment and gross floor area has been adjusted downward to account for employment associated with special care units.

* Reflects Mid 2021 to Mid 2041 forecast period

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

Schedule 9c
City of St. Catharines
Estimate of the Anticipated Amount, Type and Location of Non-Residential Development for Which Development Charges can be Imposed

Development Location	Timing	Primary[1, 2]	Industrial G.F.A. S.F.[1]	Commercial G.F.A. S.F.[1]	Institutional G.F.A. S.F.[1, 3]	Total Non-Residential G.F.A. S.F.	Employment Increase[4]
Urban	2021 - 2031	-	1,148,100	1,134,000	1,069,700	3,351,800	5,129
	2021 - 2041	-	2,632,300	2,603,700	2,528,000	7,764,000	11,896
Rural	2021 - 2031	100,000	35,500	-	-	135,500	57
	2021 - 2041	148,000	81,400	-	-	229,400	111
City of St. Catharines	2021 - 2031	100,000	1,183,600	1,134,000	1,069,700	3,487,300	5,186
	2021 - 2041	148,000	2,713,700	2,603,700	2,528,000	7,993,400	12,007

Watson & Associates Economists Ltd., 2021.

[1] Square feet per employee assumptions:

Primary	4,000
Industrial	1,100
Commercial	450
Institutional	680

[2] Primary industry includes bona-fide and non bona-fide farming which can include cannabis growing operation related employment.

[3] Forecast institutional employment and gross floor area has been adjusted downward to account for employment associated with special care units.

[4] Employment Increase does not include No Fixed Place of Work.

*Reflects Mid 2021 to Mid 2041 forecast period

Schedule 10
City of St. Catharines
Non-Residential Construction Value
Years 2007 to 2016
(000's 2018 $)

YEAR	Industrial				Commercial				Institutional				Total			
	New	Improve	Additions	Total	New	Improve	Additions	Total	New	Improve	Additions	Total	New	Improve	Additions	Total
2007	1,408	988	1,746	4,143	14,212	18,863	6,155	39,230	0	11,555	466	12,021	15,621	31,406	8,367	55,394
2008	1,043	679	1,482	3,205	2,639	11,605	8,641	22,886	17,784	4,791	7,638	30,213	21,466	17,076	17,761	56,303
2009	2,326	1,034	2,147	5,506	12,089	13,811	20,623	46,522	58,534	4,157	7,910	70,601	72,948	19,002	30,680	122,630
2010	24,909	3,274	1,812	29,995	44,423	13,856	1,171	59,450	77,776	570,824	3,066	651,666	147,108	587,954	6,049	741,110
2012	720	1,592	1,072	3,384	1,771	16,273	3,980	22,024	5,837	10,282	804	16,923	8,328	28,146	5,856	42,331
2013	14,568	849	2,630	18,047	61,818	23,960	12,070	97,848	2,348	38,238	684	41,270	78,734	63,047	15,383	157,165
2014	174	510	0	684	8,506	16,356	5,440	30,302	10,377	7,035	2,354	19,766	19,057	23,901	7,794	50,752
2015	631	3,341	789	4,761	15,175	10,943	1,149	27,267	0	20,101	0	20,101	15,806	34,385	1,938	52,129
2016	786	1,594	682	3,063	4,700	14,390	0	19,090	1,393	2,650	19,795	23,838	6,879	18,634	20,477	45,990
Subtotal	47,034	14,503	12,359	73,896	177,895	161,205	61,606	400,705	174,483	675,657	59,499	909,640	399,413	851,364	133,464	1,384,241
Percent of Total	64%	20%	17%	100%	44%	40%	15%	100%	19%	74%	7%	100%	29%	62%	10%	100%
Average	***4,703***	***1,450***	***1,545***	***7,390***	***17,790***	***16,120***	***6,845***	***40,071***	***21,810***	***67,566***	***6,611***	***90,964***	***39,941***	***85,136***	***13,346***	***138,424***
2007 - 2011																
Period Total				43,957				204,175				787,742				1,035,875
2007 - 2011 Average				***8,791***				***40,835***				***157,548***				***207,175***
% Breakdown				4.2%				19.7%				76.0%				100.0%
2012 - 2016																
Period Total				29,939				196,530				121,897				348,367
2012 - 2016 Average				***5,988***				***39,306***				***24,379***				***69,673***
% Breakdown				8.6%				56.4%				35.0%				100.0%
2007 - 2016																
Period Total				73,896				400,705				909,640				1,384,241
2007 - 2016 Average				***7,390***				***40,071***				***90,964***				***138,424***
% Breakdown				5.3%				28.9%				65.7%				100.0%

Source: Statistics Canada Publication, 64-001-XIB

Note: Inflated to year-end 2017 (January, 2018) dollars using Reed Construction Cost Index

Schedule 11
City of St. Catharines
Employment to Population Ratio by Major Employment Sector, 2006 to 2016

NAICS		Year			Change		Comments
		2006	2011	2016	06-11	11-16	
	Employment by industry						
	Primary Industry Employment						
11	*Agriculture, forestry, fishing and hunting*	810	720	705	-90	-15	Categories which relate to local land-based resources
21	*Mining and oil and gas extraction*	30	20	25	-10	5	
	Sub-total	**840**	**740**	**730**	**-100**	**-10**	
	Industrial and Other Employment						
22	*Utilities*	155	180	125	25	-55	
23	*Construction*	1,975	1,805	1,590	-170	-215	
31-33	*Manufacturing*	9,110	5,510	4,705	-3,600	-805	Categories which relate primarily to industrial land supply and demand
41	*Wholesale trade*	1,820	1,565	1,360	-255	-205	
48-49	*Transportation and warehousing*	1,830	1,650	1,720	-180	70	
56	*Administrative and support*	2,090	1,303	1,320	-788	18	
	Sub-total	**16,980**	**12,013**	**10,820**	**-4,968**	**-1,193**	
	Population Related Employment						
44-45	*Retail trade*	8,945	9,185	8,705	240	-480	
51	*Information and cultural industries*	1,215	825	865	-390	40	
52	*Finance and insurance*	2,325	2,150	2,385	-175	235	
53	*Real estate and rental and leasing*	1,180	1,165	1,060	-15	-105	
54	*Professional, scientific and technical services*	2,860	2,875	3,325	15	450	Categories which relate primarily to population growth within the municipality
55	*Management of companies and enterprises*	40	110	50	70	-60	
56	*Administrative and support*	2,090	1,303	1,320	-788	18	
71	*Arts, entertainment and recreation*	790	830	705	40	-125	
72	*Accommodation and food services*	4,445	3,990	4,835	-455	845	
81	*Other services (except public administration)*	3,400	2,875	2,825	-525	-50	
	Sub-total	**27,290**	**25,308**	**26,075**	**-1,983**	**768**	
	Institutional						
61	*Educational services*	4,730	5,395	5,525	665	130	
62	*Health care and social assistance*	6,950	6,820	8,725	-130	1,905	
91	*Public administration*	2,950	3,435	2,975	485	-460	
	Sub-total	**14,630**	**15,650**	**17,225**	**1,020**	**1,575**	
	Total Employment	**59,740**	**53,710**	**54,850**	**-6,030**	**1,140**	
	Population	**131,989**	**131,400**	**133,113**	**-589**	**1,713**	
	Employment to Population Ratio						
	Industrial and Other Employment	**0.13**	**0.09**	**0.08**	**-0.04**	**-0.01**	
	Population Related Employment	**0.21**	**0.19**	**0.20**	**-0.01**	**0.00**	
	Institutional Employment	**0.11**	**0.12**	**0.13**	**0.01**	**0.01**	
	Primary Industry Employment	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	
	Total	**0.45**	**0.41**	**0.41**	**-0.04**	**0.00**	

Source: Statistics Canada Employment by Place of Work
Note: 2006-2016 employment figures are classified by North American Industry Classification System (NAICS) Code

Appendix B
Level of Service

SUMMARY OF SERVICE STANDARDS AS PER DEVELOPMENT CHARGES ACT, 1997, AS AMENDED							
Service/Class of Service Category	Sub-Component	10 Year Average Service Standard					Maximum Ceiling LOS
		Cost (per capita)	Quantity (per capita)		Quality (per capita)		
Services Related to a Highway	Roads	$7,468.50	0.0043	km of roadways	1,736,860	per lane km	194,024,162
	Bridges, Culverts & Structures	$495.20	0.0009	Number of Bridges, Culverts & Structures	550,222	per item	12,864,801
	Sidewalks	$945.40	0.0041	km of sidewalks	230,585	per km	24,560,547
	Traffic Signals & Streetlights	$415.70	0.1765	No. of Streetlights	2,355	per signal	10,799,470
Public Works	Facilities	$446.44	0.9348	ft² of building area	478	per sq.ft.	11,598,065
	Vehicles and Equipment	$220.07	0.0026	No. of vehicles and equipment	84,642	per vehicle	5,717,199
Fire	Fire Protection Services - Fire Facilities	$184.04	0.4125	sq.ft. of building area	446	per sq.ft.	4,781,175
	Fire Protection Services - Fire Vehicles	$110.91	0.0003	No. of vehicles	369,700	per vehicle	2,881,331
	Fire Protection Services - Fire Small Equipment and Gear	$23.44	0.0210	No. of equipment and gear	1,116	per Firefighter	608,948
Parks and Recreation Services	Outdoor Recreation and Park Development	$551.01	0.0081	Acres of Parkland	68,026	per acre	5,627,465
	Outdoor Recreation and Park Amenities	$768.83	0.0021	No. of parkland amenities	366,110	per amenity	7,852,061
	Parks - Trails	$117.42	0.5084	Linear Metres of Paths and Trails	231	per lin m.	1,199,210
	Parks and Recreation Vehicles and Equipment	$48.15	0.0013	No. of vehicles and equipment	37,038	per vehicle	491,756
	Indoor Recreation Facilities	$1,590.69	4.1218	ft² of building area	386	per sq.ft.	16,245,717
Library	Library Facilities	$230.23	0.5533	ft² of building area	416	per sq.ft.	2,351,339
	Library Collection Materials	$76.80	2.8188	No. of library collection items	27	per collection item	784,358
	Library Vehicles & Equipment	$0.64	0.0000	No. of library vehicle & equipment items	49,231	per vehicle	6,536

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/km)
Rural cross secton surface type Asphalt or Concrete	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	$1,632,000
Rural cross secton surface type Coldmix	1.80	1.80	1.68	1.68	1.58	1.58	1.58	1.14	1.14	1.14	$765,000
Rural cross secton surface type Concrete	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	$1,795,000
Rural cross secton surface type Earth	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	$102,000
Rural cross section surface type asphalt	32.81	32.81	32.42	32.42	32.52	32.52	32.52	32.96	32.96	32.96	$1,020,000
Semi-urban cross secton surface type Asphalt or concrete	6.92	6.92	6.71	6.71	6.71	6.71	6.71	6.71	6.71	6.71	$2,326,000
Semi-urban cross secton surface type Concrete	2.65	2.65	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	$2,438,000
Semi-urban cross secton surface type Gravel	1.76	1.32	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	$499,800
Semi-urban cross section surface type asphalt	133.79	134.31	134.68	134.25	134.25	134.25	134.25	134.77	134.77	134.77	$1,489,000
Urban cross secton surface type Asphalt on concrete	50.45	54.65	54.34	54.34	54.34	54.34	54.34	54.29	54.29	54.29	$2,704,000
Urban cross secton surface type Concrete	39.08	34.84	33.44	33.44	33.44	33.44	33.44	33.40	33.40	33.40	$2,856,000
Urban cross secton surface type Gravel	0.38	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	$499,800
Urban cross section surface type asphalt	292.41	296.06	296.43	296.86	297.59	297.59	297.59	299.36	299.36	299.36	$1,642,000
Active Transportation:											
Welland Canals Parkway Trail	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	10.40	10.40	$306,000
Total	**574.19**	**577.67**	**575.16**	**575.16**	**575.89**	**575.89**	**575.89**	**578.08**	**579.48**	**579.48**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308	
Per Capita Standard	0.00440	0.00440	0.00440	0.00430	0.00430	0.00430	0.00430	0.00430	0.00430	0.00430	

10 Year Average	2011-2020
Quantity Standard	0.0043
Quality Standard	$1,736,860
Service Standard	$7,469

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$7,469
Eligible Amount	$194,024,162

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Meridian Centre Pedestrian Bridge (North) (St Paul St., North entrance to Meridian Centre) ST_ASSET_ID BR089	-	-	-	-	1	1	1	1	1	1	$2,154,000
Meridian Centre Pedestrian Bridge (South) (St Paul St., South entrance to Meridian Centre) ST_ASSET_ID BR090	-	-	-	-	1	1	1	1	1	1	$1,291,000
Eastport Park Pedestrian Bridge (35 Parkside Drive) ST_ASSET_ID BR075	-	-	-	1	1	1	1	1	1	1	$264,000
Centennial Pedestrian Bridge (Centennial Park, 70m west of Oakdale Avenue) ST_ASSET_ID BR076	-	-	-	1	1	1	1	1	1	1	$514,000
New Henley Pedestrian Bridge (Connection between J.C park and Rennie Park) ST_ASSET_ID BR074	1	1	1	1	1	1	1	1	1	1	$4,541,000
Morningstar Mill Bridge (Decew Falls, Main Entrance) ST_ASSET_ID BR064	1	1	1	1	1	1	1	1	1	1	$193,000
Arthur Street Culvert (Just north of Melody Trail, over Beamer Creek) ST_ASSET_ID BR024	1	1	1	1	1	1	1	1	1	1	$1,020,000
Briardale School Pedestrian Bridge (Opposite St. Julien Drive) ST_ASSET_ID BR059	1	1	1	1	1	1	1	1	1	1	$236,000
Park Walkway Pedestrian Bridge E (Lot 1, Con. 2 (E Bridge) S of Erion Rd, E of Hwy 406) ST_ASSET_ID BR066	1	1	1	1	1	1	1	1	1	1	$136,000
Park Walkway Pedestrian Bridge (W) (S of Erion Rd, E of Hwy 406) ST_ASSET_ID BR067	1	1	1	1	1	1	1	1	1	1	$136,000
Port Dalhousie Harbour (East of Lakeport Road) ST_ASSET_ID BR037	1	1	1	1	1	1	1	1	1	1	$1,756,000
Dalhousie Yacht Club Pedestrian Bridge (Dalhousie Yacht Club) ST_ASSET_ID BR038	1	1	1	1	1	1	1	1	1	1	$286,000
Green Ribbon Trail Pedestrian Bridge (Grn Ribbon Trail (Old Martindale Rd)) ST_ASSET_ID BR035	1	1	1	1	1	1	1	1	1	1	$357,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Michael Rennie Park Pedestrian Bridge (Adj to Regatta Finish Line Tower W of Lakeport Rd) ST_ASSET_ID BR036	1	1	1	1	1	1	1	1	1	1	$271,000
Orchard Park Pedestrian Bridge (West of Morningside Drive in Orchard Park) ST_ASSET_ID BR039	1	1	1	1	1	1	1	1	1	1	$107,000
Spring Garden Creek Pedestrian Bridge (At end of Sp. Garden Crk on Shore of Lake Ont.) ST_ASSET_ID BR040	1	1	1	1	1	1	1	1	1	1	$171,000
Halene Court Pedestrian Bridge (West of Cherie Road near Halene Court) ST_ASSET_ID BR041	1	1	1	1	1	1	1	1	1	1	$58,700
Lakeshore Road Ped Bridge (E of Bradmon Dr. - N side of Lakeshore Rd) ST_ASSET_ID BR043	1	1	1	1	1	1	1	1	1	1	$129,000
Walker's Creek Park Bridge (E of Bradmon Dr, between Lakeshore Rd and Parnell Rd) ST_ASSET_ID BR045	1	1	1	1	1	1	1	1	1	1	$46,900
Jones Beach Pedestrian Bridge (E of Broadway on Shore of Lake Ont) ST_ASSET_ID BR049	1	1	1	1	1	1	1	1	1	1	$85,700
Walkers Creek Pedestrian Bridge (opposite Nancy Drive) (E of Strathcona Dr) ST_ASSET_ID BR050	1	1	1	1	1	1	1	1	1	1	$228,000
Walkers Creek Pedestrian Bridge (opposite Rosemount Ave) (East of Strathcona Dr) ST_ASSET_ID BR051	1	1	1	1	1	1	1	1	1	1	$57,100
Princess Park Pedestrian Bridge (S of the St.Catharines Tennis Club, W of Oakdale Ave) ST_ASSET_ID BR055	1	1	1	1	1	1	1	1	1	1	$257,000
Canal Valley Pedestrian Bridge (Over the old Welland Canal, W of Oakdale Ave, Opposite Lincoln Ave.) ST_ASSET_ID BR056	1	1	1	1	1	1	1	1	1	1	$181,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Canal Valley Pedestrian Bridge (Over old Welland Canal, E of Moffat St, 250 mtrs N of Disher St) ST_ASSET_ID BR057	1	1	1	1	1	1	1	1	1	1	$107,000
Old Welland Canal Pedestrian Bridge. (450 Mtrs S of Disher St, Opp. Abbot St, E of Moffatt St) ST_ASSET_ID BR058	1	1	1	1	1	1	1	1	1	1	$78,500
Town and Country Prk Pedestrian Bridge (W of Sovereign Dr, E of St.Peter School) ST_ASSET_ID BR061	1	1	1	1	1	1	1	1	1	1	$228,000
Ball Avenue West Pedestrian Bridge (Just north of Bradley Street) ST_ASSET_ID BR062	1	1	1	1	1	1	1	1	1	1	$85,700
Decew Falls Pedestrian Bridge (Morningstar Mill, Decew Falls) ST_ASSET_ID BR065	1	1	1	1	1	1	1	1	1	1	$57,100
Happy Rolf's Bridge (N end of park at Lake Ont waterfront trail over pond outlet to Lake Ont) ST_ASSET_ID BR069	1	1	1	1	1	1	1	1	1	1	$228,000
Walker's Crk S Park Pedestrian Bridge (Walkers Crk Park access E of Strathcona Dr. at Costen Blvd.) ST_ASSET_ID BR073	1	1	1	1	1	1	1	1	1	1	$176,000
Cindy Drive Park Pedestrian Bridge (W of Beau Valley Dr. in Cindy Dr. Park) ST_ASSET_ID BR042	1	1	1	1	1	1	1	1	1	1	$271,000
Walkers Creek Pedestrian Bridge (Walkers Crk Park access E of Strathcona Dr, at Keistan Dr) ST_ASSET_ID BR520	1	1	1	1	1	1	1	1	1	1	$176,000
Ball Avenue West Bridge (Just West of Merritt St.) ST_ASSET_ID BR001	1	1	1	1	1	1	1	1	1	1	$188,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Lincoln Avenue Bridge (Just East of Waite Lane over Carter Creek) ST_ASSET_ID BR002	1	1	1	1	1	1	1	1	1	1	$685,000
Pelham Road Bridge (Pelham Rd, over CNR Tracks, south of St. Paul St w.) ST_ASSET_ID BR003	1	1	1	1	1	1	1	1	1	1	$5,086,000
First Street Louth Bridge (Over 12M Crk, Just S of Pelham Rd) ST_ASSET_ID BR004	1	1	1	1	1	1	1	1	1	1	$864,000
Fifth Street Louth Bridge (S of 3rd Ave Lth (over Richardson Crk)) ST_ASSET_ID BR005	1	1	1	1	1	1	1	1	1	1	$207,000
Third Avenue Louth Bridge (West of Gregory Road over 15 Mile Creek) ST_ASSET_ID BR006 (City's Share)	1	1	1	1	1	1	1	1	1	1	$661,552
Erion Road Culvert (Over Richardson Crk, East of Highway 406) ST_ASSET_ID BR007	1	1	1	1	1	1	1	1	1	1	$521,000
President Court Culvert (170 metres West of Third Street Louth) ST_ASSET_ID BR008	1	1	1	1	1	1	1	1	1	1	$500,000
Third Avenue Louth Bridge/Box Culverts (200 metres East of Fifth St Louth) ST_ASSET_ID BR009	1	1	1	1	1	1	1	1	1	1	$821,000
Disher Street Bridge (over the Old Canal, Just West of Oakdale Ave) ST_ASSET_ID BR010	1	1	1	1	1	1	1	1	1	1	$850,000
South Service Road Bridge (Just North of Queenston Street) ST_ASSET_ID BR011	1	1	1	1	1	1	1	1	1	1	$2,093,000
Regent Drive Culvert (Over Walker's Creek just West of Dundalk Court) ST_ASSET_ID BR012	1	1	1	1	1	1	1	1	1	1	$650,000
Third Street Louth Bridge (Over Richardson Crk, 240 metres South of QEW) ST_ASSET_ID BR013	1	1	1	1	1	1	1	1	1	1	$614,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Fifth Avenue Louth Bridge (110m East of 3rd Street Louth) ST_ASSET_ID BR014	1	1	1	1	1	1	1	1	1	1	$428,000
Lighthouse Road Louth Culvert (700 mtrs N of Lakeshore Rd over Orchard or Richardson Crk) ST_ASSET_ID BR015	1	1	1	1	1	1	1	1	1	1	$1,077,000
Linwell Road Bridge (Just East of McDermid Road) ST_ASSET_ID BR016	1	1	1	1	1	1	1	1	1	1	$486,000
Merritt Street CNR Bridge (320m S of Oakdale Ave) ST_ASSET_ID BR017	1	1	1	1	1	1	1	1	1	1	$1,860,000
Third Avenue Louth Culvert (Just East of Highway 406) ST_ASSET_ID BR018	1	1	1	1	1	1	1	1	1	1	$1,230,000
Croydon Drive Culvert (Just east of Sussex Drive, over Beamer Creek) ST_ASSET_ID BR019	1	1	1	1	1	1	1	1	1	1	$514,000
Croydon Drive Culvert (Just east of Elm Park, over Beamer Creek) ST_ASSET_ID BR020	1	1	1	1	1	1	1	1	1	1	$600,000
Third Street Louth Culvert (90m S of CN Rail Tracks over Richardson Crk) ST_ASSET_ID BR028	1	1	1	1	1	1	1	1	1	1	$704,000
Lakeshore Road Sidewalk Bridge (East of Bradmon Drive. - S side of Lakeshore Rd) ST_ASSET_ID BR044	1	1	1	1	1	1	1	1	1	1	$129,000
South Side Lakeshore Road Pedestrian Bridge (West of Eastfield Court) ST_ASSET_ID BR047	1	1	1	1	1	1	1	1	1	1	$129,000
Niagara Street Pedestrian Bridge E (Just N of Laura Secord S.S) ST_ASSET_ID BR052	1	1	1	1	1	1	1	1	1	1	$76,500
Welland Avenue South Side Pedestrian Bridge (West of Cushman Rd) ST_ASSET_ID BR053	1	1	1	1	1	1	1	1	1	1	$76,500
St. Paul Crescent Pedestrian Bridge (Just south of Highway 406) ST_ASSET_ID BR054	1	1	1	1	1	1	1	1	1	1	$1,173,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Glendale Ave Pedestrian Bridge. (N of Glendale Ave, over 12 M Crk) ST_ASSET_ID BR060	1	1	1	1	1	1	1	1	1	1	$2,338,000
Melody Trail Culvert (20m east of Arthur Street) ST_ASSET_ID BR077	1	1	1	1	1	1	1	1	1	1	$821,000
Wildwood Road Culvert (125m east of Arthur Street) ST_ASSET_ID BR078	1	1	1	1	1	1	1	1	1	1	$704,000
Lake Street Culvert (125m north of Lakeshore Road) ST_ASSET_ID BR079	1	1	1	1	1	1	1	1	1	1	$1,224,000
Lindwell Road Culvert (125m north of Lakeshore Road) ST_ASSET_ID BR080	1	1	1	1	1	1	1	1	1	1	$880,000
First Street Louth Culvert (125m north of Lakeshore Road) ST_ASSET_ID BR081	1	1	1	1	1	1	1	1	1	1	$1,297,000
Vansickle Road Culvert (77m south of Benfield Drive) ST_ASSET_ID BR082	1	1	1	1	1	1	1	1	1	1	$578,000
Ridley Road Culvert (350m E of Vansickle Rd) ST_ASSET_ID BR083	1	1	1	1	1	1	1	1	1	1	$835,000
Old Coach Road Culvert (50m northeast of Spring Garden Rd) ST_ASSET_ID BR084	1	1	1	1	1	1	1	1	1	1	$816,000
Parnell Road Culvert (60m west of Dorset St) ST_ASSET_ID BR085	1	1	1	1	1	1	1	1	1	1	$880,000
Tremont and Pearl Drive Culvert (Corner of Tremont Drive and Pearl Ann Drive) ST_ASSET_ID BR086	1	1	1	1	1	1	1	1	1	1	$1,432,000
Cindy Drive Culvert (Cindy Drive, 70m west of Cherie Rd) ST_ASSET_ID BR087	1	1	1	1	1	1	1	1	1	1	$1,020,000
Parnell Drive Culvert (5m east of Bradman Dr) ST_ASSET_ID BR088	1	1	1	1	1	1	1	1	1	1	$938,000
Kimberly Clark Pedestrian Bridge (S of Kimberly Clark, just N of Bradley St) ST_ASSET_ID BR063	1	1	1	1	1	1	1	-	-	-	$75,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Trillium Bridge over CN tracks. (West of Merritt St.) ST_ASSET_ID BR068	1	1	1	1	1	1	1	-	-	-	$75,000
Burgoyne Woods Pedestrian Bridge (200m N of rd access to Pavilion) ST_ASSET_ID BR070	1	1	1	1	1	1	1	-	-	-	$75,000
Burgoyne Woods Pedestrian Bridge (at 200m S of road access to Pavilion) ST_ASSET_ID BR071	1	1	1	1	1	1	1	-	-	-	$75,000
Third Avenue Louth Truss Bridge (35m S of Glass Ave, W of Gregory Road) ST_ASSET_ID BR121	1	1	1	1	1	1	1	-	-	-	$75,000
O'Mara Drive Bridge (30m east of O'Mara Drive) ST_ASSET_ID BR091	1	1	1	1	1	1	1	1	1	1	$57,100
Edgedale Road Culvert (170m E of Highland Ave. (Burgoyne Wds) over Riverview Crk) ST_ASSET_ID BR025	1	1	1	1	1	1	1	1	1	1	$650,000
Orchard Creek Culvert (90m west of Westgate Park Dr.) ST_ASSET_ID BR095	1	1	1	1	1	1	1	1	1	1	$235,000
Edgedale Road Culvert (70m south of Kimbermount Drive) ST_ASSET_ID BR098	1	1	1	1	1	1	1	1	1	1	$392,000
Juliana Creek Culvert (50m west of Wright Bros Produce) ST_ASSET_ID BR104	1	1	1	1	1	1	1	1	1	1	$153,000
Guy Road Park Bridge (Guy Rd and Geneva St (Ped. Bridge in Guy Road Park)) ST_ASSET_ID BR122	1	1	1	1	1	1	1	1	1	1	$114,000
Read Road Culvert (150m South of Lakeshore Road) ST_ASSET_ID BR021	1	1	1	1	1	1	1	1	1	1	$147,000
Richelieu Drive Culvert (Just west of Niagara Street, over Walker's Creek) ST_ASSET_ID BR022	1	1	1	1	1	1	1	1	1	1	$359,000
Old Oxford Road Culvert (Just east of Ramlee Road, over Walker's Creek) ST_ASSET_ID BR023	1	1	1	1	1	1	1	1	1	1	$400,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Eighth Avenue Louth Culvert (210m East of Fifth Street Louth) ST_ASSET_ID BR026	1	1	1	1	1	1	1	1	1	1	$235,000
Ridley Road Culvert (60m East of First Street Louth) ST_ASSET_ID BR027	1	1	1	1	1	1	1	1	1	1	$30,600
Fifth Avenue Louth Culvert (Just E of Third St Lth over Tributary of Richardson's Crk) ST_ASSET_ID BR029	1	1	1	1	1	1	1	1	1	1	$188,000
Fifth Avenue Louth Culvert (Just West of Third Street Louth) ST_ASSET_ID BR030	1	1	1	1	1	1	1	1	1	1	$106,000
Lakeshore Road Culvert (530m East of Gregory Road) ST_ASSET_ID BR031	1	1	1	1	1	1	1	1	1	1	$745,000
Read Road Culvert (490m South of Linwell Road) ST_ASSET_ID BR032	1	1	1	1	1	1	1	1	1	1	$131,000
Read Road Culvert (350m South of Lakeshore Road) ST_ASSET_ID BR033	1	1	1	1	1	1	1	1	1	1	$122,000
Read Road Culvert (35m South of Scott Street) ST_ASSET_ID BR034	1	1	1	1	1	1	1	1	1	1	$122,000
North Side Lakeshore Rd Sidewalk Ped Bridge (W of Eastfield Court) ST_ASSET_ID BR046	1	1	1	1	1	1	1	1	1	1	$32,600
Niagara Street Pedestrian Bridge (E side of Niagara St, Just N of house no. 700) ST_ASSET_ID BR048	1	1	1	1	1	1	1	1	1	1	$122,000
Rosedale Creek Culvert (Just south of structure C049M) ST_ASSET_ID BR092	1	1	1	1	1	1	1	1	1	1	$49,000
McDermid Road Bridge (East end of Southdale Dr.) ST_ASSET_ID BR093	1	1	1	1	1	1	1	1	1	1	$18,400
Parnell Road Culvert (120m southwest of Niagara St) ST_ASSET_ID BR094	1	1	1	1	1	1	1	1	1	1	$997,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Westgate Park Drive Culvert (90m west of Westgate Park Dr.) ST_ASSET_ID BR096	1	1	1	1	1	1	1	1	1	1	$653,000
Kilkenny Drive Culvert (70m south of Kimbermount Drive) ST_ASSET_ID BR097	1	1	1	1	1	1	1	1	1	1	$490,000
Oakdale Ave Culvert (5m south of Eastchester Ave) ST_ASSET_ID BR100	1	1	1	1	1	1	1	1	1	1	$1,542,000
Parnell Road Culvert (Parnell Rd, at Bradmon Drive) ST_ASSET_ID BR101	1	1	1	1	1	1	1	1	1	1	$587,000
Trelawne Drive Culvert (50m west of Cartier Drive) ST_ASSET_ID BR102	1	1	1	1	1	1	1	1	1	1	$352,000
Lincoln Avenue Culvert (30m east of Loraine Drive) ST_ASSET_ID BR103	1	1	1	1	1	1	1	1	1	1	$469,000
Linwell Road Culvert (50m east of Juliana Crescent) ST_ASSET_ID BR105	1	1	1	1	1	1	1	1	1	1	$469,000
Downing Street Culvert (80m north of South Drive) ST_ASSET_ID BR106	1	1	1	1	1	1	1	1	1	1	$255,000
Oakridge Avenue Culvert (80m west of Belton Blvd) ST_ASSET_ID BR107	1	1	1	1	1	1	1	1	1	1	$428,000
Bunting Road Culvert (60m south of Queenston Street) ST_ASSET_ID BR108	1	1	1	1	1	1	1	1	1	1	$938,000
Rosedale Avenue Culvert (36m east of Bunting Rd) ST_ASSET_ID BR109	1	1	1	1	1	1	1	1	1	1	$211,000
Ivy Avenue Culvert (15m east of Woodrow Street North) ST_ASSET_ID BR110	1	1	1	1	1	1	1	1	1	1	$352,000
Rosedale Creek Culvert (20m south of Ivy Ave) ST_ASSET_ID BR111	1	1	1	1	1	1	1	1	1	1	$32,600
Greenwood Avenue Culvert (220m east of Bunting Rd) ST_ASSET_ID BR112	1	1	1	1	1	1	1	1	1	1	$163,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Rosedale Creek Culvert (Just south of Greenwood Ave) ST_ASSET_ID BR113	1	1	1	1	1	1	1	1	1	1	$40,800
Secord Creek Culvert (Upstream of Battersea Ave, 50m southeast of C056M) ST_ASSET_ID BR114	1	1	1	1	1	1	1	1	1	1	$352,000
Secord Creek Culvert (Between Alexandra Blvd and Woodrow St) ST_ASSET_ID BR115	1	1	1	1	1	1	1	1	1	1	$352,000
Dunvegan Road Culvert (115m west of Woodrow St) ST_ASSET_ID BR116	1	1	1	1	1	1	1	1	1	1	$587,000
Battersea Avenue Culvert (170m east of Ferndale Ave) ST_ASSET_ID BR118	1	1	1	1	1	1	1	1	1	1	$704,000
Duncan Drive Culvert (115m south of Draper Dr) ST_ASSET_ID BR119	1	1	1	1	1	1	1	1	1	1	$408,000
Glen Morris Drive Culvert (10m east of Glen Morris Drive) ST_ASSET_ID BR099	1	1	1	1	1	1	1	1	1	1	$180,000
Rockwood Avenue Culvert (95m east of Carriage Rd) ST_ASSET_ID BR117	1	1	1	1	1	1	1	1	1	1	$528,000
Woodgate Creek Culvert (East of Larchwood Dr) ST_ASSET_ID BR120	1	1	1	1	1	1	1	1	1	1	$24,500
Total	**118**	**118**	**118**	**120**	**122**	**122**	**122**	**117**	**117**	**117**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.00090	0.00090	0.00090	0.00090	0.00090	0.00090	0.00090	0.00090	0.00090	0.00090

10 Year Average	2011-2020
Quantity Standard	0.0009
Quality Standard	$550,222
Service Standard	$495

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$495
Eligible Amount	$12,864,801

City of St. Catharines
Service Standard Calculation Sheet

Service: Services Related to a Highway - Sidewalks
Unit Measure: km of sidewalks

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/km)
Sidewalks	538	542	545	547	550	551	553	555	556	556	$229,500
Total	**538**	**542**	**545**	**547**	**550**	**551**	**553**	**555**	**556**	**556**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.0041	0.0041	0.0041	0.0041	0.0041	0.0041	0.0041	0.0041	0.0041	0.0041

10 Year Average	2011-2020
Quantity Standard	0.0041
Quality Standard	$230,585
Service Standard	$945

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$945
Eligible Amount	$24,560,547

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Concrete Pole	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	7,560	$4,900
Decorative Concrete Pole or Steel Pole	1,173	1,173	1,173	1,173	1,173	1,173	1,173	1,173	1,173	1,173	$5,300
LED Cobra Head	13,627	13,627	13,627	13,627	13,627	13,627	13,627	13,627	13,627	13,627	$660
LED Decorative Head	1,173	1,173	1,173	1,173	1,173	1,173	1,173	1,173	1,173	1,173	$2,700
Total	**23,533**	**23,533**	**23,533**	**23,533**	**23,533**	**23,533**	**23,533**	**23,533**	**23,533**	**23,533**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.1791	0.1789	0.1784	0.1777	0.1773	0.1768	0.1759	0.1744	0.1735	0.1726

10 Year Average	2011-2020
Quantity Standard	0.1765
Quality Standard	$2,355
Service Standard	$416

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$416
Eligible Amount	$10,799,470

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Traffic Signals - Admiral/A&P Plaza & Hartzel Rd.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Beech St. & Lake St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Beacon Christian School & Scott St.	1	1	1	1	1	1	1	1	1	1	$178,500
Traffic Signals - Bunting Rd. & Community Centre PPS	1	1	1	1	1	1	1	1	1	1	$178,500
Traffic Signals - Bunting Rd. & Dunkirk Rd.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Bunting Rd. & Dieppe Rd.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Bunting Rd. & Eastchester Ave.	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - Bunting Rd. & Roehampton Ave.	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - Bunting Rd. & Scott St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Bunting Rd. & Welland Ave.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Church St. & Carlisle St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Church St. & James St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Church St. & Queen St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Chestnut St. & Merritt St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Dunvegan Rd & Hartzel Rd.	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - Erion Rd. & First St. Louth	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - Eastchester Ave. & Grantham Ave.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Facer St. & Grantham Ave.	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - First St. Louth & Third Ave Louth	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - Fairview Mall & Geneva St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Geneva St. & Linwell Rd.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Geneva St. & Russell Ave.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Geneva St. & Scott St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Grantham Ave. & Scott St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Grantham Ave. & Welland Ave.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Helliwell's Lane & St. Paul St.	1	1	1	1	1	1	1	1	1	1	$178,500
Traffic Signals - Hartzel Rd. & Rockwood Ave.	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - James St. & King St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - King St. & Queen St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Lake St. & Hiedehof Village	1	1	1	1	1	1	1	1	1	1	$178,500
Traffic Signals - Lake St. & Lakeport Rd.	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - Lake St. & Linwell Rd.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Lake St. & Russell Ave.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Lake St. & Secord Dr.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Lake St. & Scott St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Lakeport Rd. & Linwell Rd.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Linwell Rd. & Vine St.	1	1	1	1	1	1	1	1	1	1	$306,000

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Traffic Signals - Merritt St. & Oakdale Ave.	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - Nielson & Welland Ave.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - North Service Rd. & Ymca Drive	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Secord Dr. & Scott St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Scott St. & Grantham Plaza Entrance	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - Scott St. & Taber Dr. (IPS)	1	1	1	1	1	1	1	1	1	1	$178,500
Traffic Signals - Scott St. & Vine St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Carlisle St. & King St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signal -Hartzel Rd. and Lincoln Ave.	-	-	-	-	1	1	1	1	1	1	$306,000
Traffic Signal- St.Paul Cres. & Pelham Rd	1	1	1	1	1	1	1	1	1	1	$15,300
Traffic Signals - Oakdale Ave./Tasker St. & Queenston St.	1	1	1	1	1	1	1	1	1	1	$306,000
Traffic Signals - Prince St. & Queenston St.	1	1	1	1	1	1	1	1	1	1	$255,000
Traffic Signals - Carlisle St. & St. Paul St.	1	1	1	1	1	1	1	1	1	1	$306,000
PXO - Garden Park & St. Paul St.	-	-	-	-	-	-	-	1	1	1	$30,600
PXO - Vine & Nello	-	-	-	-	-	-	-	-	1	1	$30,600
Total	**49**	**49**	**49**	**49**	**50**	**50**	**50**	**51**	**52**	**52**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004

10 Year Average	2011-2020
Quantity Standard	0.0004
Quality Standard	$257,000
Service Standard	$103

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$103
Eligible Amount	$2,670,641

City of St. Catharines
Service Standard Calculation Sheet

Class of Service: Public Works Facilities
Unit Measure: ft² of building area

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Bld'g Value ($/sq.ft.)	Value/sq.ft. with land, site works, etc.
Lake Street Service Centre (main bldg)	95,500	95,500	95,500	95,500	95,500	95,500	95,500	95,500	106,500	106,500	$357	$436
Lake Street Service Centre (salt storage bldg)	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	$204	$330
Geneva Street yard (main building)	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	$306	$452
Geneva Street yard (storage buildings)	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	$153	$293
Renown Road Storage Facility	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	$153	$628
Merritton Yard (land only - acres)	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31	13.31		$400,000
Total	**122,500**	**122,500**	**122,500**	**122,500**	**122,500**	**122,500**	**122,500**	**122,500**	**133,500**	**133,500**		

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.9323	0.9314	0.9287	0.9253	0.9230	0.9203	0.9154	0.9080	0.9844	0.9794

10 Year Average	2011-2020
Quantity Standard	0.9348
Quality Standard	$478
Service Standard	$446

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$446
Eligible Amount	$11,598,065

City of St. Catharines
Service Standard Calculation Sheet

Class of Service: Public Works Facilities, Vehicles and Equipment
Unit Measure: No. of vehicles and equipment

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020 Value ($/Vehicle)	2021 Value ($/Vehicle)
Aspire Electric Golf Cart - Sidewalk Inspections	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$10,000	$10,200
Chevrolet Express 3500 Cube Van	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$75,000	$76,500
Chevrolet Express 2500 Cargo Van	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$55,000	$56,100
Dodge Caliber	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$40,000	$40,800
Dodge Caravan	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	$40,000	$40,800
Dodge Ram 1500 Pickup	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	$50,000	$51,000
Dodge Ram 2500 Pickup	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	$60,000	$61,200
Dodge Ram 3500 Pickup	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$65,000	$66,300
Dodge Ram 5500 Pickup	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$80,000	$81,600
Ford E350 Cube Van	2.0	2.0	2.0	2.0	2.0	2.0	4.0	7.0	7.0	7.0	$75,000	$76,500
Ford Escape	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	$40,000	$40,800
Ford Escape Hybrid	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	$50,000	$51,000
Ford Expedition	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$80,000	$81,600
Ford Explorer	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$50,000	$51,000
Ford F150 Pickup	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	$50,000	$51,000
Ford F250 Pickup	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	$60,000	$61,200
Ford F350 Stake/Dump Truck	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	$85,000	$86,700
Ford F350 Utility/Service Truck	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$85,000	$86,700
Ford F550 Stake/Dump Truck	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	$95,000	$96,900
Ford F550 Stake/Dump Truck w/ Plow and Salter	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	$150,000	$153,000
Ford F550 Aerial Truck	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$200,000	$204,000
Ford Fusion Hybrid	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$55,000	$56,100
Ford Ranger Pickup	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$40,000	$40,800
Ford Taurus Interceptor	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$45,000	$45,900
Ford Transit Connect Van	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$45,000	$45,900
Ford Transit 350XL 12 Passenger Van	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$60,000	$61,200
Freightliner Single Axle Dump Truck	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$280,000	$286,000
Freightliner Tandem Axle Dump Truck	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	$350,000	$357,000
Freightliner Dump/Chipper Truck	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$220,000	$224,000
GMC 1-Ton Stake/Dump Truck	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$85,000	$86,700

City of St. Catharines
Service Standard Calculation Sheet

Class of Service: Public Works Facilities, Vehicles and Equipment
Unit Measure: No. of vehicles and equipment

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020 Value ($/Vehicle)	2021 Value ($/Vehicle)
GMC Acadia	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$50,000	$51,000
GMC Savana 2500 Cargo Van	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	$55,000	$56,100
GMC Sierra 1/2 Ton Pickup	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$50,000	$51,000
GMC Sierra 2500 Pickup	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	$60,000	$61,200
GMC Sierra 3500 Pickup	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$70,000	$71,400
GMC STV Cube Van	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$75,000	$76,500
GMC Terrain	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	$40,000	$40,800
International Single Axle Aerial w/Chipper body	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$275,000	$281,000
International Forestry Crane Truck	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$300,000	$306,000
International Single Axle Dump Truck	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	$280,000	$286,000
International Tandem Axle Dump Truck	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$350,000	$357,000
International TriAxle Dump Truck	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$380,000	$388,000
International Vactor Flush Truck	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$850,000	$867,000
Kia Sedona	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$40,000	$40,800
Chevrolet Venture	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$40,000	$40,800
Spartan Heavy Rescue Truck	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$600,000	$612,000
Sterling Single Axle Dump Truck	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$280,000	$286,000
International Street Flusher	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$300,000	$306,000
Toyota Camry Hybrid	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$50,000	$51,000
Roads Equipment												
Vibratory Roller	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$45,000	$45,900
Portable Air Compressor	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$30,000	$30,600
Street Sweeper	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$280,000	$286,000
Hydraulic Breaker	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$35,000	$35,700
Hyster Fork Lift	1.0	1.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$40,000	$40,800
John Deere Loader	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$325,000	$332,000
Ride on Sweeper (Parking Garage)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$55,000	$56,100
Portable Traffic Control System	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$60,000	$61,200
Aluminum Shoring Box	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	$5,000	$5,100
Sidewalk Plow	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	$150,000	$153,000
Hydrant Steamer	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$20,000	$20,400
Hydroseeder	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$10,000	$10,200
Valve Turning Trailer	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$100,000	$102,000
14" Concrete Saw	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	$2,500	$2,600

City of St. Catharines
Service Standard Calculation Sheet

Class of Service: Public Works Facilities, Vehicles and Equipment
Unit Measure: No. of vehicles and equipment

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020 Value ($/Vehicle)	2021 Value ($/Vehicle)
Mud Pump	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	$2,500	$2,600
Sidewalk Grinder	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$7,000	$7,100
Laser Guided Line Marker	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$9,000	$9,200
Cement Breaker/Jackhammer	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$2,500	$2,600
Plate Tamper	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$4,000	$4,100
Honda 3800 Watt Generator	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$3,000	$3,100
30" Road Cutting Saw	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$25,000	$25,500
Pipe/Cable Install Machine	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$20,000	$20,400
Shared Equipment with Parks												
Bobcat Toolcat	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	95,000	$96,900
Loader / Backhoe	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	150,000	$153,000
Trailer	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	5,000	$5,100
Drop-in Hopper Spreader	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	20,000	$20,400
Kubota M Series w/Plow and Salter	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	80,000	$81,600
Spider Remote Control Slope Mower	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	60,000	$61,200
Snow Blower	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	3,000	$3,100
Total	**344.5**	**344.5**	**346.5**	**346.5**	**346.5**	**346.5**	**348.5**	**351.5**	**351.5**	**351.5**		

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026	0.0026

10 Year Average	2011-2020
Quantity Standard	0.0026
Quality Standard	$84,642
Service Standard	$220

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$220
Eligible Amount	$5,717,199

City of St. Catharines
Service Standard Calculation Sheet

Service: Fire Protection Services - Fire Facilities
Unit Measure: sq.ft. of building area

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Bld'g Value ($/sq.ft.)	Value/sq.ft. with land, site works, etc.
Station 1 (Headquarters) - 64 Geneva Street	13,520	13,520	13,520	13,520	13,520	13,520	13,520	13,520	13,520	13,520	$336	$411
Station 2 - 190 Linwell Rd.	3,046	3,046	3,046	3,046	3,046	3,046	3,046	3,046	3,046	3,046	$333	$480
Station 3 - 285 Pelham Rd.	3,936	3,936	3,936	3,936	3,936	3,936	3,936	3,936	3,936	3,936	$333	$483
Station 4 - 427 Merritt St. - New			16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	$336	$435
Station 4 - 14 Walnut st. - Old	4,510	4,510								-	$333	$403
Station 5 - 149 Martindale Rd.	5,806	5,806	5,806	5,806	5,806	5,806	5,806	5,806	5,806	5,806	$333	$448
Station 6 - 465 Scott St.	4,302	4,302	4,302	4,302	4,302	4,302	4,302	4,302	4,302	4,302	$333	$443
Training Tower - Renown Rd.	3,780	3,780	3,780	3,780	3,780	-	-	-	-	-	$306	$1,001
6-8 Academy - Fire Prevention Office	8,180	8,180	8,180	8,180	8,180	8,180	8,180	8,180	8,180	8,180	$306	$368
Total	**47,080**	**47,080**	**59,370**	**59,370**	**59,370**	**55,590**	**55,590**	**55,590**	**55,590**	**55,590**		

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.3583	0.3580	0.4501	0.4484	0.4473	0.4176	0.4154	0.4120	0.4099	0.4078

10 Year Average	2011-2020
Quantity Standard	0.4125
Quality Standard	$446
Service Standard	$184

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$184
Eligible Amount	$4,781,175

City of St. Catharines
Service Standard Calculation Sheet

Service: Fire Protection Services - Fire Vehicles
Unit Measure: No. of vehicles

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/Vehicle)
Aerial	3	3	3	3	3	3	3	3	3	3	$2,173,000
Pumper	8	8	8	8	8	8	8	8	8	8	$867,000
Car	5	5	5	5	5	5	5	5	5	5	$56,000
Pickup Truck	4	4	4	4	4	4	4	4	4	4	$61,000
Small Pickup Truck	2	2	2	2	2	2	2	2	2	2	$51,000
SUV - Mid-size	3	3	3	3	3	3	3	3	3	3	$56,000
SUV - Large	4	4	4	4	4	4	4	4	4	4	$92,000
Van	3	3	3	3	3	3	3	3	3	3	$51,000
Fire Boats	2	2	2	2	2	2	2	2	2	2	$7,700
Fire Prevention Trailer	1	1	1	1	1	1	1	1	1	1	$5,100
Total	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.00027	0.00027	0.00027	0.00026	0.00026	0.00026	0.00026	0.00026	0.00026	0.00026

10 Year Average	2011-2020
Quantity Standard	0.0003
Quality Standard	$369,700
Service Standard	$111

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$111
Eligible Amount	$2,881,331

City of St. Catharines
Service Standard Calculation Sheet

Service: Fire Protection Services - Fire Small Equipment and Gear
Unit Measure: No. of equipment and gear

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Auto Extrication	31	31	31	31	31	31	31	31	31	31	$9,100
Water Rescue	192	192	192	192	192	192	192	192	192	192	$310
Tech Rope	397	397	397	397	397	397	397	397	397	397	$200
Rit Bag	13	13	13	13	13	13	13	13	13	13	$200
Nozzles and Foam	86	86	86	86	86	86	86	86	86	86	$1,200
Force Entry	38	38	38	38	38	38	38	38	38	38	$1,700
Hazmat	15	15	15	15	15	15	15	15	15	15	$200
Hose and Appliances	749	749	749	749	749	749	749	749	749	749	$410
Overhaul Equipment	47	47	47	47	47	47	47	47	47	47	$2,400
Bunker Coats & Pants	150	150	150	150	289	289	289	289	289	289	$2,900
Other Gear and PPE	150	150	150	150	150	150	150	150	150	150	$3,600
Stationwear - Commuications	13	13	13	13	13	13	13	13	13	13	$1,000
Medical	16	16	16	16	16	16	16	16	16	16	$510
Respiratory Protection	671	671	671	671	671	671	671	671	671	671	$1,000
Search and Rescue	143	143	143	143	143	143	143	143	143	143	$1,200
Tactical Ventilation	9	9	9	9	9	9	9	9	9	9	$3,600
Total	**2,720**	**2,720**	**2,720**	**2,720**	**2,859**	**2,859**	**2,859**	**2,859**	**2,859**	**2,859**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.0207	0.0207	0.0206	0.0205	0.0215	0.0215	0.0214	0.0212	0.0211	0.0210

10 Year Average	2011-2020
Quantity Standard	0.0210
Quality Standard	$1,116
Service Standard	$23

D.C. Amount (before deductions)	21 Year
Forecast Population	25,979
$ per Capita	$23
Eligible Amount	$608,948

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Development
Unit Measure: Acres of Parkland

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/Acre)
Beaches:											
Lakeside Park Beach	12.01	12.01	12.01	12.01	12.01	12.01	12.01	12.01	12.01	12.01	$69,400
Sunset Beach	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	$69,400
Jones Beach	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	$69,400
Gores:											
Monarch park	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	$67,300
Sir Casimir Gzowski Park	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	$67,300
Belton Park	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	$67,300
Madame Curie Park	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	$67,300
Parks:											
Abbey Mews	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	$67,300
Alex Mackenzie Park	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	6.74	$67,300
Arthur Street Park	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	$67,300
Bailey Street Park	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	$67,300
Barbican Heights Park	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	$67,300
Barley Drive Park	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	$67,300
Bartlett Park	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68	$67,300
Belmont Park	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	$67,300
Berkley Park	10.35	10.35	10.35	10.35	10.35	10.35	10.35	10.35	10.35	10.35	$67,300
Bermuda Park	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	$67,300
Bogart Street Park	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	$67,300
Burgoyne Woods Park	114.00	114.00	114.00	114.00	114.00	114.00	114.00	114.00	114.00	114.00	$69,400
Cambria Drive Park	4.44	4.44	4.44	4.44	4.44	4.44	4.44	4.44	4.44	4.44	$67,300
Cameron Park	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	$67,300
Catherine Street Park	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	$67,300
Canal Valley	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	$67,300
Centennial Garden	23.42	23.42	23.42	23.42	23.42	23.42	23.42	23.42	23.42	23.42	$69,400
Charles Ansell Park	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	$67,300
Cherie Road Park	16.60	16.60	16.60	16.60	16.60	16.60	16.60	16.60	16.60	16.60	$67,300
Cindy Drive Park	8.09	8.09	8.09	8.09	8.09	8.09	8.09	8.09	8.09	8.09	$67,300
City Hall, Library, Old Court House & the Market	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	$67,300

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Development
Unit Measure: Acres of Parkland

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/Acre)
Clifford's Creek Park	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	$67,300
Community Park	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	$69,400
Cushman Road Park	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	$67,300
Dalemere Estate Park	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	$67,300
Douglas Park	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	$67,300
Eastmount Park	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	$67,300
Eastport Park	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	$67,300
Elma Street Park	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	$67,300
Facer Street Park	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74	$67,300
Fairhaven Park	3.65	3.65	3.65	3.65	3.65	3.65	3.65	3.65	3.65	3.65	$67,300
Fitzgerald Park	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	$67,300
Garden City Golf Course	67.66	67.66	67.66	67.66	67.66	67.66	67.66	67.66	67.66	67.66	$69,400
Glen Avenue Park	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	$67,300
Glengarry Park	2.89	2.89	2.89	2.89	2.89	2.89	2.89	2.89	2.89	2.89	$67,300
Grantham Avenue Park	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	$67,300
Grantham Lion's Park	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	$67,300
Grapeview Park	5.53	5.53	5.53	5.53	5.53	5.53	5.53	5.53	5.53	5.53	$67,300
Guy Road Park	8.48	8.48	8.48	8.48	8.48	8.48	8.48	8.48	8.48	8.48	$67,300
Guy Road Creek	9.15	9.15	9.15	9.15	9.15	9.15	9.15	9.15	9.15	9.15	$67,300
Happy Rolph's Bird Sanctuary	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	$69,400
Harcove Park	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	$67,300
Henley Island	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	$67,300
Jaycee Park	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	$69,400
Joe McCaffery Park	21.25	21.25	21.25	21.25	21.25	21.25	21.25	21.25	21.25	21.25	$69,400
John Dempsey Park	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	$69,400
John Page Park	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	$67,300
Johnson Park	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	$67,300
Kernahan Park	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	$67,300
Lakebreeze Park	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	$67,300
Lakefront Park	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	$67,300
Lakeside Park	13.24	13.24	13.24	13.24	13.24	13.24	13.24	13.24	13.24	13.24	$67,300
Lakeview Park	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	$67,300

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Development
Unit Measure: Acres of Parkland

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/Acre)
Lancaster Park	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	$69,400
Lester B. Pearson Park	29.00	29.00	29.00	29.00	29.00	29.00	29.00	29.00	29.00	29.00	$69,400
Lincoln Park	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	$67,300
Linlake Park	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	$67,300
Lock III Museum	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	$67,300
Lockhart Point	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	$67,300
Lockview Park	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	$67,300
Louis Park	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	$67,300
Lalcolmson Park	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	$67,300
Maplecrest park	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	$67,300
Martindale Park	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	$67,300
Martindale Pond Look-Out	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	$67,300
Memorial Park	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	$67,300
Merritt Park	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	$67,300
Montebello Park	0.04	0.04	0.04	0.04	0.04	0.04	6.15	6.15	6.15	6.15	$69,400
Mountain Locks	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	$67,300
Mountainview Park	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	$67,300
Neelon Park	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	$67,300
Oakhill Park	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	$67,300
Orchard Creek	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	$67,300
Orchard Park	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	$67,300
Parker Street Park	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	$67,300
Partridge Park	-	-	-	-	-	-	0.75	0.75	0.75	0.75	$67,300
Pic Leeson Park	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	$67,300
Plymouth Avenue Park	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	$67,300
Port Dalhousie Lion's Park	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	$67,300
Portmaster Park	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	$67,300
Port Weller East Park	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	$67,300
Power Glen Park	3.11	3.11	3.11	3.11	3.11	3.11	3.11	3.11	3.11	3.11	$67,300
Princess Park	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	$67,300
Realty Park	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	8.30	$67,300
Rennie park	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	$67,300

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Development
Unit Measure: Acres of Parkland

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/Acre)
Richardson's Creek Look out	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	$67,300
Roehampton Park	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	$67,300
Rotary Park	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	$69,400
Royal Henley Park	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	$67,300
Rykert Street Park	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	$67,300
Secord Woods Park	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	$67,300
Shauna Park	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	$67,300
Sheridan Park	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	$67,300
Spring Garden Park	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	$67,300
St. Alfred's Park	3.60	3.60	3.60	3.60	3.60	3.60	3.60	3.60	3.60	3.60	$67,300
St. Patrick's Park	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	$67,300
Tecumseh Park	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	$67,300
Torosian Park	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74	$67,300
Town & Country Park	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70	10.70	$67,300
Trapper Leo Park	10.65	10.65	10.65	10.65	10.65	10.65	10.65	10.65	10.65	10.65	$67,300
Treeview Park	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	$67,300
Twelve Mile Creek	19.80	19.80	19.80	19.80	19.80	19.80	19.80	19.80	19.80	19.80	$67,300
Valleyview Park	2.32	2.32	2.32	2.32	2.32	2.32	2.32	2.32	2.32	2.32	$67,300
Village Gate Park	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	$67,300
Vintage Park	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	$67,300
Walker's Creek Park	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	$69,400
Walkinshaw Park	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	$67,300
Welland Canal Parkway	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	$69,400
Wembley Drive Park	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	$67,300
Westcliff Park	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	$67,300

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Development
Unit Measure: Acres of Parkland

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/Acre)
Westland Park	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	$67,300
West Park	34.36	34.36	34.36	34.36	34.36	34.36	34.36	34.36	34.36	34.36	$69,400
Woodgale Park	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60	$67,300
Wright Brothers Park	7.73	7.73	7.73	7.73	7.73	7.73	7.73	7.73	7.73	7.73	$67,300
Total	**1,073.00**	**1,073.00**	**1,073.00**	**1,073.00**	**1,073.00**	**1,073.00**	**1,079.86**	**1,079.86**	**1,079.86**	**1,079.86**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.0082	0.0082	0.0081	0.0081	0.0081	0.0081	0.0081	0.0080	0.0080	0.0079

10 Year Average	2011-2020
Quantity Standard	0.0081
Quality Standard	$68,026
Service Standard	$551

D.C. Amount (before deductions)	10 Year
Forecast Population	10,213
$ per Capita	$551
Eligible Amount	$5,627,465

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Sports Fields											
Type A Senior-Natural Turf Fields Lit:											
Berkley Park	2	2	2	2	2	2	2	2	2	2	$663,000
Grantham Lions Park	1	1	1	1	1	1	1	1	1	1	$663,000
Lancaster Park	1	1	1	1	1	1	1	1	1	1	$663,000
Lester B. Pearson Park	2	2	2	2	2	2	2	2	2	2	$663,000
Kiwanis Artifical Turf Field (lights)	1	1	1	1	1	1	1	1	1	1	$1,632,000
West Park	2	2	2	2	2	2	2	2	2	2	$663,000
Type B Senior Soccer Fields Unlit:											
Bermuda Park	1	1	1	1	1	1	1	1	1	1	$255,000
Bogart St. Park	1	1	1	1	1	1	1	1	1	1	$255,000
Grantham Ave. Park	1	1	1	1	1	1	1	1	1	1	$255,000
Guy Rd. Park	1	1	1	1	1	1	1	1	1	1	$255,000
Kemahan Park	1	1	1	1	1	1	1	1	1	1	$255,000
Realty Park	1	1	1	1	1	1	1	1	1	1	$255,000
Trapper Leo Park	1	1	1	1	1	1	1	1	1	1	$255,000
West Park	1	1	1	1	1	1	1	1	1	1	$255,000
Type B Junior Fields Unlit:											
Berkley Park	1	1	1	1	1	1	1	1	1	1	$204,000
Cambria Dr. Park	1	1	1	1	1	1	1	1	1	1	$204,000
Catherine St. Park	1	1	1	1	1	1	1	1	1	1	$204,000
Grapeview Park	1	1	1	1	1	1	1	1	1	1	$204,000
Myles W. Pic Leeson Park	2	2	2	2	2	2	2	2	2	2	$204,000
Linlake Park	2	2	2	2	2	2	2	2	2	2	$204,000
Trapper Leo Park	1	1	1	1	1	1	1	1	1	1	$204,000
Woodgale Park	1	1	1	1	1	1	1	1	1	1	$204,000
Type C Junior Fields Unlit:											
Eastport Park	1	1	1	1	1	1	1	1	1	1	$204,000
Fairhaven Park	1	1	1	1	1	1	1	1	1	1	$204,000
Lakeview Park	1	1	1	1	1	1	1	1	1	1	$204,000
Secord Woods Park	1	1	1	1	1	1	1	1	1	1	$204,000
Shauna Park	1	1	1	1	1	1	1	1	1	1	$204,000

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Ball Diamonds											
Hardball											
Senior Type A Lit:											
Community Park	1	1	1	1	1	1	1	1	1	1	$1,122,000
Minor Type A Lit:											
Alex Mackenzie Park	1	1	1	1	1	1	1	1	1	1	$918,000
Minor Type B Unlit:											
Community Park	2	2	2	2	2	2	2	2	2	2	$306,000
Fitzgerald Park	1	1	1	1	1	1	1	1	1	1	$204,000
John Dempsey Park	2	2	2	2	2	2	2	2	2	2	$204,000
Kemahan Park	1	1	1	1	1	1	1	1	1	1	$204,000
Myles W. Pic Leeson Park	1	1	1	1	1	1	1	1	1	1	$204,000
Walkinshaw Park	1	1	1	1	1	1	1	1	1	1	$204,000
Softball											
Senior Type A Lit:											
Grantham Lions Park	1	1	1	1	1	1	1	1	1	1	$408,000
Grapeview Park	1	1	1	1	1	1	1	1	1	1	$408,000
Joseph McCaffery Park	4	4	4	4	4	4	4	4	4	4	$408,000
Lancaster Park	2	2	2	2	2	2	2	2	2	2	$408,000
Minor Type B Unlit:											
Cameron Park	1	1	1	1	1	1	1	1	1	1	$204,000
Douglas Park	1	1	1	1	1	1	1	1	1	1	$204,000
St. Patrick's Park	1	1	1	1	1	1	1	1	1	1	$204,000
Rectangular Pools:											
Community Park/Lion Dunc Schooley Pool	1	1	1	1	1	1	1	1	1	1	$4,080,000
Port Dalhousie Lions Park	1	1	1	1	1	1	1	1	1	1	$4,080,000
Stand-Alone Small Pools:											
Lincoln Park	1	1	1	1	1	1	1	1	1	1	$3,060,000
Small Pools:											
Port Dalhousie Lions Park	1	1	1	1	1	1	1	1	1	1	$2,040,000
Wading Pool:											
Community Park	1	1	1	1	1	1	1	1	1	1	$2,040,000

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Splash Pads:											
Catherine St. Park	1	1	1	1	1	1	1	1	1	1	$204,000
Bogart Park	-	-	-	-	-	-	-	1	1	1	$204,000
West Park	-	-	-	-	-	-	1	1	1	1	$204,000
Lester B. Pearson Park	1	1	1	1	1	1	1	1	1	1	$204,000
Tennis Courts											
Lit:											
Alex Mackenzie Park	2	2	2	2	2	2	2	2	2	2	$140,000
Berkley Park	2	2	2	2	2	2	2	2	2	2	$140,000
Bogart Park	2	2	2	2	2	2	2	2	2	2	$140,000
Community Park	3	3	3	3	3	3	3	3	3	3	$140,000
Lester B. Pearson Park	2	2	2	2	2	2	2	2	2	2	$140,000
Linlake Park	2	2	2	2	2	2	2	2	2	2	$140,000
Port Dalhousie Lions Park	2	2	2	2	2	2	2	2	2	2	$140,000
Realty Park	3	3	3	3	3	3	3	3	3	3	$140,000
Woodgale Park	2	2	2	2	2	2	2	2	2	2	$140,000
Unlit:											
Burgoyne Woods Park	2	2	2	2	2	2	2	2	2	2	$76,500
Eastport Park	2	2	2	2	2	2	2	2	2	2	$76,500
Guy Rd. Park	2	2	2	2	2	2	2	2	2	2	$76,500
St. Patrick's Park	2	2	2	2	2	2	2	2	2	2	$76,500
Valleyview Park	2	2	2	2	2	2	2	2	2	2	$76,500
Basketball Courts:											
Alex Mackenzie Park	1	1	1	1	1	1	1	1	1	1	$81,600
Barbican Heights Park	1	1	1	1	1	1	1	1	1	1	$81,600
Barley Dr. Park	1	1	1	1	1	1	1	1	1	1	$81,600
Bartlett Park	1	1	1	1	1	1	1	1	1	1	$81,600
Bogart St. Park	1	1	1	1	1	1	1	1	1	1	$81,600
Clifford's Creek Park	1	1	1	1	1	1	1	-	-	-	$81,600
Eastport Park	1	1	1	1	1	1	1	1	1	1	$81,600
Elma St. Park	1	1	1	1	1	1	1	1	1	1	$81,600
Fairhaven Park	1	1	1	1	1	1	1	1	1	1	$81,600

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Partridge Park	-	-	-	-	-	-	1	1	1	1	$81,600
Harcove Park	1	1	1	1	1	1	1	1	1	1	$81,600
Johnson Park	1	1	1	1	1	1	1	1	1	1	$81,600
Lakeview Park	1	1	1	1	1	1	1	1	1	1	$81,600
Louis Avenue Park	1	1	1	1	1	1	1	1	1	1	$81,600
Maplecrest Park	1	1	1	1	1	1	1	1	1	1	$81,600
Mountainview Park	1	1	1	1	1	1	1	1	1	1	$81,600
Roehampton Park	1	1	1	1	1	1	1	1	1	1	$81,600
Shauna Park	1	1	1	1	1	1	1	1	1	1	$81,600
Torosian Park	1	1	1	1	1	1	1	1	1	1	$81,600
Valleyview Park	1	1	1	1	1	1	1	1	1	1	$81,600
Vintage Park	1	1	1	1	1	1	1	1	1	1	$81,600
Wembly Drive Park	1	1	1	1	1	1	1	1	1	1	$81,600
Westland Park	1	1	1	1	1	1	1	1	1	1	$81,600
Skateboard Parks:											
Seymour-Hannah Sports and Entertainment Centre	1	1	1	1	1	1	1	1	1	1	$510,000
Playgrounds:											
Burgoyne Woods	1	1	1	1	1	1	1	1	1	1	$337,000
Alex Mackenzie Park	1	1	1	1	1	1	1	1	1	1	$184,000
Princess Park	1	1	1	1	1	1	1	1	1	1	$184,000
Sunset Beach	1	1	1	1	1	1	1	1	1	1	$184,000
Montebello Park	1	1	1	1	1	1	1	1	1	1	$337,000
Joseph L. McCaffery Park	1	1	1	1	1	1	1	1	1	1	$337,000
Bartlett Park	1	1	1	1	1	1	1	1	1	1	$184,000
Wembley Drive Park	1	1	1	1	1	1	1	1	1	1	$184,000
Valleyview Park	1	1	1	1	1	1	1	1	1	1	$184,000
Realty Park	1	1	1	1	1	1	1	1	1	1	$184,000
Neelon Park	1	1	1	1	1	1	1	1	1	1	$184,000
Guy Road Park	1	1	1	1	1	1	1	1	1	1	$184,000
Grantham Lions Park	1	1	1	1	1	1	1	1	1	1	$184,000
Grantham Ave. Park	1	1	1	1	1	1	1	1	1	1	$184,000
Bogart Park	1	1	1	1	1	1	1	1	1	1	$184,000

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Barley Drive Park	1	1	1	1	1	1	1	1	1	1	$184,000
Lester B. Pearson Park	1	1	1	1	1	1	1	1	1	1	$332,000
Westland Park	1	1	1	1	1	1	1	1	1	1	$184,000
Village Gate Park	1	1	1	1	1	1	1	1	1	1	$184,000
Sheridan Park	1	1	1	1	1	1	1	1	1	1	$184,000
Johnson Park	1	1	1	1	1	1	1	1	1	1	$184,000
Eastmount Park	1	1	1	1	1	1	1	1	1	1	$184,000
Walkinshaw Park	1	1	1	1	1	1	1	1	1	1	$184,000
Elma Street Park	1	1	1	1	1	1	1	1	1	1	$184,000
Bermuda Park	1	1	1	1	1	1	1	1	1	1	$184,000
Power Glen Park	1	1	1	1	1	1	1	1	1	1	$184,000
Walker's Creek South	1	1	1	1	1	1	1	1	1	1	$184,000
Torosian Park	1	1	1	1	1	1	1	1	1	1	$184,000
Maplecrest Park	1	1	1	1	1	1	1	1	1	1	$184,000
Trapper Leo Park	1	1	1	1	1	1	1	1	1	1	$184,000
Shauna Park	1	1	1	1	1	1	1	1	1	1	$184,000
Royal Henley Park	1	1	1	1	1	1	1	1	1	1	$184,000
Richardson's Creek Lookout	1	1	1	1	1	1	1	1	1	1	$184,000
Parker Street Park	1	1	1	1	1	1	1	1	1	1	$184,000
Mountainview Park	1	1	1	1	1	1	1	1	1	1	$184,000
Lockview Park	1	1	1	1	1	1	1	1	1	1	$184,000
Harcove Park	1	1	1	1	1	1	1	1	1	1	$184,000
Abbey Mews	1	1	1	1	1	1	1	1	1	1	$184,000
St. Alfred's Park	1	1	1	1	1	1	1	1	1	1	$184,000
Lincoln Park	1	1	1	1	1	1	1	1	1	1	$184,000
Lakeview Park	1	1	1	1	1	1	1	1	1	1	$184,000
Cliffords Creek Park	1	1	1	1	1	1	1	1	1	1	$184,000
Cambria Drive Park	1	1	1	1	1	1	1	1	1	1	$184,000
Westcliff Park	1	1	1	1	1	1	1	1	1	1	$184,000
Treeview Park	1	1	1	1	1	1	1	1	1	1	$184,000
Tecumseh Park	1	1	1	1	1	1	1	1	1	1	$184,000
Catherine Street Park	1	1	1	1	1	1	1	1	1	1	$184,000
Barbican Heights Park	1	1	1	1	1	1	1	1	1	1	$184,000
Arthur Street Park	1	1	1	1	1	1	1	1	1	1	$184,000

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Fitzgerald Park	1	1	1	1	1	1	1	1	1	1	$184,000
Bailey Street Park	1	1	1	1	1	1	1	1	1	1	$184,000
Louis Ave. Park	1	1	1	1	1	1	1	1	1	1	$184,000
Fairhaven Park	1	1	1	1	1	1	1	1	1	1	$184,000
Wise Guys Park	-	-	-	-	-	-	-	1	1	1	$184,000
Port Dalhousie Lions Park	1	1	1	1	1	1	1	1	1	1	$184,000
Linlake Park	1	1	1	1	1	1	1	1	1	1	$184,000
John Page Park	1	1	1	1	1	1	1	1	1	1	$184,000
Cushman Road Park	1	1	1	1	1	1	1	1	1	1	$184,000
Secord Woods Park	1	1	1	1	1	1	1	1	1	1	$184,000
Eastport Park	1	1	1	1	1	1	1	1	1	1	$184,000
Community Park	1	1	1	1	1	1	1	1	1	1	$184,000
Cindy Drive Park	1	1	1	1	1	1	1	1	1	1	$184,000
Lock III Museum	1	1	1	1	1	1	1	1	1	1	$184,000
Walker's Creek North	1	1	1	1	1	1	1	1	1	1	$184,000
Vintage Park	1	1	1	1	1	1	1	1	1	1	$184,000
West Park	1	1	1	1	1	1	1	1	1	1	$184,000
Roehampton Park	1	1	1	1	1	1	1	1	1	1	$184,000
Lakeside Park	1	1	1	1	1	1	1	1	1	1	$357,000
Happy Rolph's Animal Farm	1	1	1	1	1	1	1	1	1	1	$337,000
Partridge Park	-	-	-	-	-	-	1	1	1	1	$184,000
Glengarry Park	1	1	1	1	1	1	1	1	1	1	$184,000
Douglas Park	1	1	1	1	1	1	1	1	1	1	$184,000
Woodgale Park	1	1	1	1	1	1	1	1	1	1	$102,000
Community Park x2	1	1	1	1	1	1	1	1	1	1	$102,000
Lester B. Pearson Park	1	1	1	1	1	1	1	1	1	1	$102,000
Golf Course Amenities:											
Clubhouse	1	1	1	1	1	1	1	1	1	1	$675,000
Old Clubhouse	1	1	1	1	1	1	1	1	1	1	$258,000
Workshop	1	1	1	1	1	1	1	1	1	1	$407,000
Washroom - #6 Tee	1	1	1	1	1	1	1	1	1	1	$94,700
Washroom - #3 Green	1	1	1	1	1	1	1	1	1	1	$40,600
Girotti - #1	1	1	1	1	1	1	1	1	1	1	$30,600
Girotti - #2	1	1	1	1	1	1	1	1	1	1	$30,600
Girotti - #3	1	1	1	1	1	1	1	1	1	1	$30,600
Girotti - #4	1	1	1	1	1	1	1	1	1	1	$30,600
Girotti - #5	1	1	1	1	1	1	1	1	1	1	$30,600

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Washrooms/Concessions:											
Burgoyne Woods	1	1	1	1	1	1	1	1	1	1	$357,000
Happy Rolph's Animal Farm	1	1	1	1	1	1	1	1	1	1	$612,000
Joseph McCaffery Park	1	1	1	1	1	1	1	1	1	1	$612,000
Lakeside Park	1	1	1	1	1	1	1	1	1	1	$1,020,000
Lancaster Park	1	1	1	1	1	1	1	1	1	1	$561,000
Lester B. Pearson Park	1	1	1	1	1	1	1	1	1	1	$714,000
Kiwanis Artifical Turf Field	1	1	1	1	1	1	1	1	1	1	$2,040,000
Montebello Park	1	1	1	1	1	1	1	1	1	1	$510,000
Sunset Beach	1	1	1	1	1	1	1	1	1	1	$1,020,000
West Park	1	1	1	1	1	1	1	1	1	1	$714,000
Pavillions/Sun Shelters:											
Bogart St. Park	-	-	-	-	-	-	-	1	1	1	$71,400
Burgoyne Woods	1	1	1	1	1	1	1	1	1	1	$408,000
Centenial Gardens	-	-	-	-	-	-	1	1	1	1	$71,400
Happy Rolph's Animal Farm	1	1	1	1	1	1	1	1	1	1	$76,500
Lakeside Park	1	1	1	1	1	1	1	1	1	1	$1,020,000
Lester B. Pearson Park	1	1	1	1	1	1	1	1	1	1	$230,000
Montebello Park	1	1	1	1	1	1	1	1	1	1	$918,000
Rotary Park	-	-	-	-	-	-	1	1	1	1	$71,400
West Park	-	-	-	-	-	-	1	1	1	1	$76,500
Bandshell:											
Lakeside Park	-	-	-	-	-	-	1	1	1	1	$230,000
Montebello Park	1	1	1	1	1	1	1	1	1	1	$204,000
Parking Lots:											
Pearson Park off Niagara Street	1	1	1	1	1	1	1	1	1	1	$714,000
Pearson Park / Aquatic Centre, western portion	1	1	1	1	1	1	1	1	1	1	$988,000
Pearson Park /Aquatic Centre east end original park lot	1	1	1	1	1	1	1	1	1	1	$1,199,000
Abbey Mews Park	1	1	1	1	1	1	1	1	1	1	$57,500
Alex McKenzie Park	1	1	1	1	1	1	1	1	1	1	$374,000
Berkely Park (at fields)	1	1	1	1	1	1	1	1	1	1	$805,000

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Berkely Park (near Bunting)	1	1	1	1	1	1	1	1	1	1	$105,000
Bogart St. Park (S)	1	1	1	1	1	1	1	1	1	1	$115,000
Burgoyne Woods - picnic loop	1	1	1	1	1	1	1	1	1	1	$938,000
Burgoyne Woods - main driveway	1	1	1	1	1	1	1	1	1	1	$1,339,000
Burgoyne Woods - parking lot	1	1	1	1	1	1	1	1	1	1	$364,000
Canal Valley	1	1	1	1	1	1	1	1	1	1	$93,600
Centennial Gardens	1	1	1	1	1	1	1	1	1	1	$144,000
Douglas Park	1	1	1	1	1	1	1	1	1	1	$221,000
Fitzgerald Park	1	1	1	1	1	1	1	1	1	1	$422,000
Green Ribbon Trail	1	1	1	1	1	1	1	1	1	1	$86,300
Guy Road Park	1	1	1	1	1	1	1	1	1	1	$193,000
Happy Rolph's	1	1	1	1	1	1	1	1	1	1	$403,000
Jaycee Gardens	1	1	1	1	1	1	1	1	1	1	$575,000
Joseph McCaffery Park	1	1	1	1	1	1	1	1	1	1	$873,000
John Demsey Park	1	1	1	1	1	1	1	1	1	1	$192,000
Jones Beach	1	1	1	1	1	1	1	1	1	1	$105,000
Kernahan Park	1	1	1	1	1	1	1	1	1	1	$597,000
Lakeside Park	1	1	1	1	1	1	1	1	1	1	$2,330,000
Lancaster Park-1	1	1	1	1	1	1	1	1	1	1	$853,000
Lancaster Park-2	1	1	1	1	1	1	1	1	1	1	$700,000
Lancaster Park (opp 320 Geneva)	1	1	1	1	1	1	1	1	1	1	$47,900
Lockhart Point	1	1	1	1	1	1	1	1	1	1	$311,000
Malcolmson Eco Park	1	1	1	1	1	1	1	1	1	1	$127,000
Lion Dunc Schooley	1	1	1	1	1	1	1	1	1	1	$125,000
Sunset Beach (formerly Municipal Beach) - north of boat ramp half closest Lake	1	1	1	1	1	1	1	1	1	1	$747,000
Sunset Beach (formerly Municipal Beach) - parallel parking lakeside along main driveway	1	1	1	1	1	1	1	1	1	1	$509,000
Sunset Beach (formerly Municipal Beach) north of boat ramp half closest WWTP	1	1	1	1	1	1	1	1	1	1	$906,000
Sunset Beach (formerly Municipal Beach)- south paved lot and main driveway to boat ramp	1	1	1	1	1	1	1	1	1	1	$705,000

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Twelve Mile Creek	1	1	1	1	1	1	1	1	1	1	$891,000
Pic Lesson Park (lot off Dundonald)	1	1	1	1	1	1	1	1	1	1	$518,000
Port Dalhousie Lions Park - Pool off Sculler's Way	1	1	1	1	1	1	1	1	1	1	$547,000
Realty Park	1	1	1	1	1	1	1	1	1	1	$489,000
Rennie Park incl. Dalhousie House	1	1	1	1	1	1	1	1	1	1	$240,000
Sheridan Park	1	1	1	1	1	1	1	1	1	1	$1,429,000
Valleyview Park	1	1	1	1	1	1	1	1	1	1	$76,700
Welland Canals Parkway-1	1	1	1	1	1	1	1	1	1	1	$95,900
Welland Canals Parkway-2	1	1	1	1	1	1	1	1	1	1	$525,000
West Park	1	1	1	1	1	1	1	1	1	1	$422,000
West Park (Powerview lot)	1	1	1	1	1	1	1	1	1	1	$681,000
Woodgale Park	1	1	1	1	1	1	1	1	1	1	$286,000
St. Patrick's Park	1	1	1	1	1	1	1	1	1	1	$297,000
Trapper Leo Park	1	1	1	1	1	1	1	1	1	1	$499,000
Shauna Park	1	1	1	1	1	1	1	1	1	1	$153,000
Henley Island (south end)	1	1	1	1	1	1	1	1	1	1	$327,000
Port Weller East Park	1	1	1	1	1	1	1	1	1	1	$121,000
Bogart St. Park (N) / Port Weller Community Centre (east lot)	1	1	1	1	1	1	1	1	1	1	$278,000
Bogart St. Park (N) / Port Weller Community Centre (west lot)	1	1	1	1	1	1	1	1	1	1	$278,000
West St. Catharines Seniors Centre	1	1	1	1	1	1	1	1	1	1	$144,000
Dunlop Older Adults Centre	1	1	1	1	1	1	1	1	1	1	$518,000
Russell Avenue Community Centre	1	1	1	1	1	1	1	1	1	1	$738,000
Victoria Lawn Cemetery	1	1	1	1	1	1	1	1	1	1	$47,900
Lock 3 Museum	1	1	1	1	1	1	1	1	1	1	$1,438,000
Morningstar Mills Museum	1	1	1	1	1	1	1	1	1	1	$105,000
Port Lighthouse	1	1	1	1	1	1	1	1	1	1	$909,000
Community Park	1	1	1	1	1	1	1	1	1	1	$2,608,000
Port Legion - leased driveway	1	1	1	1	1	1	1	1	1	1	$125,000
Lockhart Point - next to Lock 1	1	1	1	1	1	1	1	1	1	1	$115,000

City of St. Catharines
Service Standard Calculation Sheet

Service: Outdoor Recreation and Park Amenities
Unit Measure: No. of parkland amenities

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Storage Structures:											
Jaycee Gardens Park	1	1	1	1	1	1	1	1	1	1	$612,000
Leash-Free Dog Parks:											
Burgoyne Woods Park	1	1	1	1	1	1	1	1	1	1	$91,800
Catherine St. Park	1	1	1	1	1	1	1	1	1	1	$51,000
Boat Launch/Ramp											
Sunset Beach Boat Launch	1	1	1	1	1	1	1	1	1	1	$500,000
Total	**278**	**278**	**278**	**278**	**278**	**278**	**285**	**287**	**287**	**287**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021

10 Year Average	2011-2020
Quantity Standard	0.0021
Quality Standard	$366,110
Service Standard	$769

D.C. Amount (before deductions)	10 Year
Forecast Population	10,213
$ per Capita	$769
Eligible Amount	$7,852,061

City of St. Catharines
Service Standard Calculation Sheet

Service: Parks - Trails
Unit Measure: Linear Metres of Paths and Trails

Description	Standard	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/ Linear Metre)
Welland Canals Parkway Trail	Special Geogrid	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	10,400	10,400	$310
Lake Ontario Waterfront Trail	Stone	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	5,800	5,800	$200
Merritt Trail	Stone	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	10,500	10,500	$200
Participark Trail	Stone	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,500	2,500	$200
Terry Fox Trail	Stone	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,000	1,000	$200
Walker's Creek Trail	Stone	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	$200
Malcomson Eco Park Trails	Stone	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	$200
CN Spur Line Trail / Grantham Trail	Stone	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	$200
Orchard Creek Trail	Stone	400	400	400	400	400	400	400	400	400	400	$200
Francis Creek Trail	Stone	500	500	500	500	500	500	500	500	500	500	$200
Terry Fox Trail	Stone	12,140	12,140	12,140	12,140	12,140	12,140	12,140	12,140	12,140	12,140	$200
Port Dalhousie Harbour	Special Geogrid	9,793	9,793	9,793	9,793	9,793	9,793	9,793	9,793	9,793	9,793	$310
Woodrow Trail	Stone	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	$200
Wright's Lookout	Stone	971	971	971	971	971	971	971	971	971	971	$200
Total		**68,251**	**68,251**	**68,251**	**68,251**	**68,251**	**68,251**	**68,251**	**68,251**	**65,951**	**65,951**	

Population		131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308	
Per Capita Standard		0.5194	0.5189	0.5174	0.5155	0.5143	0.5127	0.5100	0.5059	0.4863	0.4838	

10 Year Average	2011-2020
Quantity Standard	0.5084
Quality Standard	$231
Service Standard	$117

D.C. Amount (before deductions)	10 Year
Forecast Population	10,213
$ per Capita	$117
Eligible Amount	$1,199,210

City of St. Catharines
Service Standard Calculation Sheet

Service: Parks and Recreation Vehicles and Equipment
Unit Measure: No. of vehicles and equipment

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020 Value ($/Vehicle)	2021 Value ($/Vehicle)
Fully Utilitized by Parks:												
1000 Gallon Water Tank w/Pump	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$15,000	$15,300
750 Gallon Water Tank w/Pump	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$13,500	$13,800
Agri-Metal PTO Leaf Blower	-	-	-	-	-	-	-	-	1.0	1.0	$9,000	$9,200
Top Dresser	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$40,000	$40,800
Tow Behind PTO Turf Vacuum	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$60,000	$61,200
Aerator	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$55,000	$56,100
Hustler Wide Area Mower	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	$35,000	$35,700
Cub Cadet Mower	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$2,200	$2,200
Cushman Turf Truckster	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$35,000	$35,700
Flail Mower	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$60,000	$61,200
John Deere Fairway Mower	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$70,000	$71,400
Utility Vehicle	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	$30,000	$30,600
John Deere Ride on Mower X495	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$16,000	$16,300
Kubota Zero Turn Mower	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	$20,000	$20,400
Kubota Mid-Mount Mower	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	$18,000	$18,400
Kubota Front Deck Mower	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$18,000	$18,400
Kubota BX Series Mower	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	$18,000	$18,400
Kubota F Series Mower	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	$26,000	$26,500
Kubota GF Series Mower	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$20,000	$20,400
Kubota L4630 Tractor	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$60,000	$61,200
Kubota Tractor 4WD	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	$60,000	$61,200
Landpride Grooming Mower	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	$14,000	$14,300
PTO Driven Fertilizer Spreader	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$15,000	$15,300
Ice Edger	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	$7,000	$7,100
Ice Resurfacer	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	$95,000	$96,900
Parade Float	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$50,000	$51,000
Scag V-Ride Stand on Mower	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	$10,000	$10,200
Showmobile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$120,000	$122,000
Toro Greensmaster Mower	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	$45,000	$45,900
Vermeer Brush Chipper	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	$95,000	$96,900

City of St. Catharines
Service Standard Calculation Sheet

Service: Parks and Recreation Vehicles and Equipment
Unit Measure: No. of vehicles and equipment

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020 Value ($/Vehicle)	2021 Value ($/Vehicle)
Vermeer Stump Grinder	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	$90,000	$91,800
Foamstream Weed Sprayer	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$75,000	$76,500
Sod Cutter	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$8,000	$8,200
Shared Equipment: (50% Parks Share Only Included)												
Bobcat Toolcat	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	$95,000	$96,900
Loader / Backhoe	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	$150,000	$153,000
Trailer	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	$5,000	$5,100
Drop-in Hopper Spreader	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	$20,000	$20,400
Kubota M Series w/Plow and Salter	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	$80,000	$81,600
Spider Remote Control Slope Mower	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	$60,000	$61,200
Snow Blower	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	$3,000	$3,100
Total	**178.5**	**178.5**	**178.5**	**178.5**	**178.5**	**178.5**	**178.5**	**178.5**	**179.5**	**179.5**		

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.0014	0.0014	0.0014	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013

10 Year Average	2011-2020
Quantity Standard	0.0013
Quality Standard	$37,038
Service Standard	$48

D.C. Amount (before deductions)	10 Year
Forecast Population	10,213
$ per Capita	$48
Eligible Amount	$491,756

City of St. Catharines
Service Standard Calculation Sheet

Service: Indoor Recreation Facilities
Unit Measure: ft² of building area

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Bld'g Value ($/sq.ft.)	Value/sq.ft. with land, site works, etc.
Arenas												
Bill Burgoyne Arena	39,650	39,650	39,650	39,650	39,650	39,650	39,650	39,650	39,650	39,650	$325	$387
Garden City Arena Complex	83,850	83,850	83,850	83,850	83,850	83,850	83,850	83,850	83,850	83,850	$325	$387
Haig Bowl Arena	31,000	31,000	31,000	31,000	31,000	31,000	31,000	31,000	31,000	31,000	$163	$209
Meridian Centre	-	-	-	160,650	160,650	160,650	160,650	160,650	160,650	160,650	$325	$373
Merritton Arena	37,800	37,800	37,800	37,800	37,800	37,800	37,800	37,800	37,800	37,800	$325	$387
Seymour-Hannah Sports Centre	133,900	133,900	133,900	133,900	133,900	133,900	133,900	133,900	133,900	133,900	$325	$387
Indoor Aquatics Centre												
St. Catharines Kiwanis Aquatics Centre	-	33,200	33,200	33,200	33,200	33,200	33,200	33,200	33,200	33,200	$510	$591
West Park Indoor Pool	14,520	14,520	-	-	-	-	-	-	-	-	$255	$310
Community Centres												
Port Weller	6,850	6,850	6,850	6,850	6,850	6,850	6,850	6,850	6,850	7,650	$332	$395
Russell Avenue	16,500	16,500	16,500	16,500	16,500	16,500	16,500	16,500	16,500	16,500	$332	$395
Queen Elizabeth	11,750	11,750	11,750	11,750	11,750	11,750	11,750	11,750	11,750	11,750	$332	$395
Merritton	24,300	24,300	24,300	24,300	24,300	24,300	24,300	24,300	24,300	24,300	$332	$395
Adult Centres												
Port Dalhousie	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	$332	$395
Dunlop Drive	10,650	10,650	10,650	10,650	10,650	10,650	10,650	10,650	10,650	10,650	$332	$395
West St. Catharines	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	$332	$395
Shared Facilities (based on programable hours used for City programing):												
Jeanne Sauve Gym	204	204	204	204	204	204	204	204	204	204	$332	$395
Harriet Tubman Public School (Gymnasium & storage)	-	-	-	-	2,719	2,719	2,719	2,719	2,719	2,719	$332	$395
Real Canadian Superstore Classroom	-	-	-	-	10	10	10	10	10	10	$332	$395
Total	**417,874**	**451,074**	**436,554**	**597,204**	**599,933**	**599,933**	**599,933**	**599,933**	**599,933**	**600,733**		

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	3.1802	3.4297	3.3095	4.5108	4.5203	4.5069	4.4832	4.4467	4.4236	4.4072

10 Year Average	2011-2020
Quantity Standard	4.1218
Quality Standard	$386
Service Standard	$1,591

D.C. Amount (before deductions)	10 Year
Forecast Population	10,213
$ per Capita	$1,591
Eligible Amount	$16,245,717

City of St. Catharines
Service Standard Calculation Sheet

Service: Library Facilities
Unit Measure: ft² of building area

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Bld'g Value ($/sq.ft.)	Value/sq.ft. with land, site works, etc.
Central Library	59,629	59,629	59,629	59,629	59,629	59,629	59,629	59,629	59,629	59,629	$340	$422
Grantham Library	5,040	5,040	-	-	-	-	-	-	-	-	$298	$373
Dr. Huq Family Library	-	8,300	8,300	8,300	8,300	8,300	8,300	8,300	8,300	8,300	$292	$366
Merritt Branch	4,463	4,463	4,463	4,463	4,463	4,463	4,463	4,463	4,463	4,463	$347	$430
Port Dalhousie Branch (23 Brock St.)	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	$340	$422
Total	**70,337**	**78,637**	**73,597**	**73,597**	**73,597**	**73,597**	**73,597**	**73,597**	**73,597**	**73,597**		

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.5353	0.5979	0.5579	0.5559	0.5545	0.5529	0.5500	0.5455	0.5427	0.5399

10 Year Average	2011-2020
Quantity Standard	0.5533
Quality Standard	$416
Service Standard	$230

D.C. Amount (before deductions)	10 Year
Forecast Population	10,213
$ per Capita	$230
Eligible Amount	$2,351,339

City of St. Catharines
Service Standard Calculation Sheet

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

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Books	333,945	327,725	310,836	307,741	304,465	295,665	273,866	274,258	268,367	239,085	$26
CD's and DVD's	37,250	39,299	42,494	42,971	44,363	45,687	42,327	43,627	43,328	44,104	$37
Special Collections	9,510	2,865	2,865	2,865	2,865	30,827	21,976	78,383	80,768	84,550	$10
E-books and E-audio	4,092	4,080	5,077	6,573	10,855	6,898	6,396	5,813	12,788	12,689	$50
Periodical Subscriptions	683	663	569	524	518	515	302	261	258	203	$142
Databases and Subscriptions	40	32	27	41	66	31	28	27	27	23	$2,090
Public Access Computers	74	74	74	74	74	74	74	74	74	74	$1,430
Public Access Laptops/Tablets/iPads	2	2	2	8	8	17	16	16	16	16	$1,240
E-readers	-	-	4	5	5	5	5	-	-	-	$117
Downloading and Streaming	-	-	-	1	3	3	4	4	4	2	$33,400
Maker Equipment 3D printers - Replicator+	-	-	-	-	1	2	2	2	2	2	$3,930
E-learning Platform Subscriptions	-	-	-	-	-	-	2	2	3	2	$9,890
Total	**385,596**	**374,740**	**361,948**	**360,803**	**363,223**	**379,724**	**344,998**	**402,467**	**405,635**	**380,750**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	2.9345	2.8493	2.7439	2.7252	2.7368	2.8526	2.5781	2.9831	2.9909	2.7933

10 Year Average	2011-2020
Quantity Standard	2.8188
Quality Standard	$27
Service Standard	$77

D.C. Amount (before deductions)	10 Year
Forecast Population	10,213
$ per Capita	$77
Eligible Amount	$784,358

City of St. Catharines
Service Standard Calculation Sheet

Service: Library Vehicles & Equipment
Unit Measure: No. of library vehicle & equipment items

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Value ($/item)
Panel Van (used - 2004 Ford Ecoline)	1	1	1	1	1	1	1	1	1	1	$56,100
Holds to Go and Books to Go Kiosks	-	-	-	-	-	-	-	2	2	2	$40,800
Ford Transit Van	-	-	-	-	-	-	-	-	-	1	$56,100
Total	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**3**	**3**	**4**	

Population	131,400	131,520	131,911	132,394	132,719	133,113	133,817	134,917	135,621	136,308
Per Capita Standard	0.000008	0.000008	0.000008	0.000008	0.000008	0.000008	0.000007	0.000022	0.000022	0.000029

10 Year Average	2011-2020
Quantity Standard	0.000013
Quality Standard	$49,231
Service Standard	$0.64

D.C. Amount (before deductions)	10 Year
Forecast Population	10,213
$ per Capita	$1
Eligible Amount	$6,536

Appendix C
Long-Term Capital and Operating Cost Examination

Appendix C: Long-Term Capital and Operating Cost Examination

City of St. Catharines
Annual Capital and Operating Cost Impact

As a requirement of the D.C.A. under s. 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. As part of this analysis, it was deemed necessary to isolate the incremental operating expenditures directly associated with these capital projects, factor in cost saving attributable to economies of scale or cost sharing where applicable and prorate the cost on a per unit basis (i.e. sq.m. of building space, per vehicle, etc.). This was undertaken through a review of the City's approved 2019 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. The method selected for lifecycle costing is the sinking fund method which provides that money will be contributed annually and invested, so that those funds will grow over time to equal the amount required for future replacement. The following factors were utilized to calculate the annual replacement cost of the capital projects (annual contribution = factor X capital asset cost) and are based on an annual growth rate of 2% (net of inflation) over the average useful life of the asset:

Table C-1
City of St. Catharines
Lifecycle Cost Factors and Average Useful Lives

Asset	Lifecycle Cost Factors	
	Average Useful Life	Factor
Facilities	50	0.0118
Services Related to a Highway	26	0.0297
Outdoor Recreation and Parks Development	25	0.0312
Outdoor Recration & Parks Amenities	20	0.0412
Outdoor Recration & Parks Trails	25	0.0312
Vehicles	9	0.1025
Fire Small Equipment and Gear	8	0.1165
Library Collection Materials	20	0.0412

Table C-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 C-2
City of St. Catharines
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. Stormwater Drainage and Control Services				
1.1 Channels, drainage and ponds	2,173,000	110,504	535,058	645,562
2. Wastewater Services				
2.1 Distribution System	12,245,600	586,095	5,210,964	5,797,059
3. Water Services				
3.1 Collection System	469,200	17,235	3,919,027	3,936,262
4. Services Related to a Highway				
4.1 Services Related to a Highway	8,370,598	381,792	3,604,185	3,985,977
5. Fire Protection Services				
5.1 Fire facilities, vehicles & equipment	7,074,000	366,658	5,647,029	6,013,687
6. Public Works Facilities, Vehicles & Equipment				
6.1 Services Related to a Highway	1,000,000	2,944	482,016	484,960
7. Transit Services				
7.1 Transit facilities, vehicles and other infrastructure	11,887,800	868,440	2,283,704	3,152,144
8. Parks and Recreation Services				
8.1 Parkland development, park amenities, trails, recreation facilities, vehicles & equipment	34,536,610	1,795,781	758,731	2,554,512
9. Library Services				
9.1 Library facilities, materials and vehicles	3,136,000	145,256	472,788	618,044
10. Growth Studies				
10.1 Water Services	379,031	-	-	-
10.2 Wastewater Services	1,035,414	-	-	-
10.3 Stormwater Services	872,422	-	-	-
10.4 Services Related to a Highway	1,185,184	-	-	-
10.5 Transit Services	99,007	-	-	-
10.6 Fire Protection Services	316,409	-	-	-
10.7 Parks and Recration Services	1,534,028	-	-	-
10.8 Library Services	240,114	-	-	-
Total	**86,554,417**	**4,274,705**	**22,913,504**	**27,188,209**

Appendix D
Development Charge Reserve Fund Policy

Appendix D: Development Charge Reserve Fund Policy

D.1 Legislative Requirements

The Development Charges Act, 1997 (D.C.A.) requires development charge (D.C.) collections (and associated interest) to be placed in separate reserve funds. Sections 33 through 36 of the Act provide the following regarding reserve fund establishment and use:

- A municipality shall establish a reserve fund for each service to which the D.C. by-law relates; s. 7 (1), however, allows services to be grouped into categories of services for reserve fund (and credit) purposes.
- The municipality shall pay each D.C. it collects into a reserve fund or funds to which the charge relates.
- The money in a reserve fund shall be spent only for the "capital costs" determined through the legislated calculation process (as per s. 5 (1) 2 to 7).
- Money may be borrowed from the fund but must be paid back with interest (O. Reg. 82/98, s. 11 (1) defines this as Bank of Canada rate either on the day the by-law comes into force or, if specified in the by-law, the first business day of each quarter).
- D.C. reserve funds may not be consolidated with other municipal reserve funds for investment purposes and may only be as an interim financing source for capital undertakings for which D.C.s may be spent (s. 37).

Annually, the Treasurer of the municipality is required to provide Council with a financial statement related to the D.C. by-law(s) and reserve funds. This statement must be made available to the public and may be requested to be forwarded to the Minister of Municipal Affairs and Housing. The D.C.A. does not prescribe how the statement is to be made available to the public. We would recommend that a resolution of Council make the statement available on the municipality's website or upon request.

Subsection 43 (2) and O. Reg. 82/98 prescribes the information that must be included in the Treasurer's statement, as follows:

- opening balance;

- closing balance;
- description of each service and/or service category for which the reserve fund was established (including a list of services within a service category);
- transactions for the year (e.g. collections, draws) including each assets capital costs to be funded from the D.C. reserve fund and the manner for funding the capital costs not funded under the D.C. by-law (i.e. non-D.C. recoverable cost share and post-period D.C. recoverable cost share);
- for projects financed by D.C.s, the amount spent on the project from the D.C. reserve fund and the amount and source of any other monies spent on the project.
- amounts borrowed, purpose of the borrowing and interest accrued during previous year;
- amount and source of money used by the municipality to repay municipal obligations to the D.C. reserve fund;
- list of credits by service or service category (outstanding at beginning of the year, given in the year and outstanding at the end of the year by holder);
- for credits granted under s. 14 of the previous D.C.A., a schedule identifying the value of credits recognized by the municipality, the service to which it applies and the source of funding used to finance the credit; and
- a statement as to compliance with s. 59 (1) of the D.C.A., whereby the municipality shall not impose, directly or indirectly, a charge related to a development or a requirement to construct a service related to development, except as permitted by the D.C.A. or another Act.

Based upon the above, Figure 1, and Attachments 1 and 2, set out the format for which annual reporting to Council should be provided.

D.2 D.C. Reserve Fund Application

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 7 of subsection 5 (1)."

This provision clearly establishes that reserve funds collected for a specific service are only to be used for that service, or to be used as a source of interim financing of capital undertakings for which a D.C. may be spent.

Figure 1
City of St. Catharines
Annual Treasurer's Statement of Development Charge Reserve Funds

Description	Services/Classes of Services to which the Development Charge Relates										Total
	Services Related to a Highway	Water Services	Wastewater Services	Stormwater Drainage and Control Services	Public Works	Fire Protection Services	Transit Services	Parks and Recreation Services	Library Services	Growth Studies	
Opening Balance, January 1, _____											**0**
Plus:											
Development Charge Collections											0
Accrued Interest											0
Repayment of Monies Borrowed from Fund and Associated Interest[1]											0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Less:											
Amount Transferred to Capital (or Other) Funds[2]											0
Amounts Refunded											0
Amounts Loaned to Other D.C. Service Category for Interim Financing											0
Credits[3]											0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Closing Balance, December 31, _____	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

[1] Source of funds used to repay the D.C. reserve fund

[2] See Attachment 1 for details

[3] See Attachment 2 for details

The Municipality is compliant with s.s. 59.1 (1) of the *Development Charges Act*, whereby charges are not directly or indirectly imposed on development nor has a requirement to construct a service related to development been imposed, except as permitted by the *Development Charges Act* or another Act.

Attachment 1
City of St. Catharines
Amount Transferred to Capital (or Other) Funds - Capital Fund Transactions

Capital Fund Transactions	Gross Capital Cost	D.C. Recoverable Cost Share					Non-D.C. Recoverable Cost Share				
		D.C. Forecast Period			Post D.C. Forecast Period						
		D.C. Reserve Fund Draw	D.C. Debt Financing	Grants, Subsidies Other Contributions	Post-Period Benefit/ Capacity Interim Financing	Grants, Subsidies Other Contributions	Other Reserve/Reserve Fund Draws	Tax Supported Operating Fund Contributions	Rate Supported Operating Fund Contributions	Debt Financing	Grants, Subsidies Other Contributions
Services Related to a Highway											
Capital Cost A											
Capital Cost B											
Capital Cost C											
Sub-Total - Services Related to Highways	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Water Services											
Capital Cost D											
Capita Cost E											
Capital Cost F											
Sub-Total - Water	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Wastewater Services											
Capital Cost G											
Capita Cost H											
Capital Cost I											
Sub-Total - Wastewater	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Amount Transferred to Operating (or Other) Funds - Operating Fund Transactions

Operating Fund Transactions	Annual Debt Repayment Amount	D.C. Reserve Fund Draw		Post D.C. Forecast Period			Non-D.C. Recoverable Cost Share		
		Principal	Interest	Principal	Interest	Source	Principal	Interest	Source
Services Related to a Highway									
Capital Cost J									
Capita Cost K									
Capital Cost L									
Sub-Total - Services Related to Highways	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**	
Water Services									
Capital Cost M									
Capita Cost N									
Capital Cost O									
Sub-Total - Water	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**	
Wastewater Services									
Capital Cost P									
Capita Cost Q									
Capital Cost R									
Sub-Total - Wastewater	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**	

Attachment 2
City of St. Catharines
Statement of Credit Holder Transactions

Credit Holder	Applicable D.C. Reserve Fund	Credit Balance Outstanding Beginning of Year _____	Additional Credits Granted During Year	Credits Used by Holder During Year	Credit Balance Outstanding End of Year _____
Credit Holder A					
Credit Holder B					
Credit Holder C					
Credit Holder D					
Credit Holder E					
Credit Holder F					

Appendix E
Local Service Policy

Appendix E: Local Service Policy

City of St. Catharines

This Appendix sets out the City's General Policy Guidelines on Development Charges (D.C.) and local service funding for Services Related to a Highway, Stormwater Management, Water Works, Wastewater Works, and Parkland Development. The guidelines outline, in general terms, the size and nature of 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 following policy guidelines are general principles by which staff will be guided in considering development applications. Each application will be considered, however, in the context of these policy guidelines as subsection 59 (2) of the Development Charges Act, 1997 (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.

1. Services Related to a Highway

A highway and services related to a highway are intended for the transportation of people and goods via many different modes including, but not limited to passenger automobiles, commercial vehicles, transit vehicles, bicycles, and pedestrians. The highway shall consist of all land and associated infrastructure built to support (or service) this movement of people and goods regardless of the mode of transportation employed, thereby achieving a complete street. A complete street is the concept whereby a highway is planned, designed, operated, and maintained to enable pedestrians, cyclists, public transit users and motorists to safely and comfortably be moved, thereby allowing for the efficient movement of people and goods.

The associated infrastructure to achieve this concept shall include, but is not limited to: road pavement structure and curbs; grade separation/bridge structures (for any vehicles, railways and/or pedestrians); grading, drainage and retaining wall features;

culvert structures; storm water drainage systems; utilities; traffic control systems; signage; gateway features; street furniture; active transportation facilities (e.g. sidewalks, bike lanes, multi-use trails which interconnect the transportation network, etc.); transit lanes & lay-bys; roadway illumination systems; boulevard and median surfaces (e.g. sod & topsoil, paving, etc.); street trees and landscaping; parking lanes & lay-bys; (excluding on-street parking in the downtown) and driveway entrances; noise attenuation systems; railings and safety barriers.

a) Roads (including structures) and Intersection Improvements

i. New, widened, extended, or upgraded, roads external to a specific development required as a result of general growth throughout the City, are development charge applicable.

ii. New roads external to a development, required to serve a specific development, are 100% developer responsibility.

iii. New Local roads internal to a specific development are 100% developer responsibility.

iv. New and/or Arterial and/or Collector roads required to be extended internally through a development, and intersection improvements immediately adjacent to a specific development over and above the costs of a Local road, are generally development charge applicable.

v. Intersection improvements for external roads not specific to a development are development charge applicable.

c) Traffic Control Systems, Signals

i. New or improvements external and unrelated to a specific development required as a result of growth, are development charge applicable.

ii. Any entrances related to a specific development are 100% developer responsibility.

iii. At intersections with Regional roads are a direct developer responsibility and may in part be development charge applicable.

iv. Signal timing & optimization plans, and area traffic studies for roads external to a specific development are development charge applicable.

c) Streetlights

i. Streetlights on new Arterial and Collector roads external and unrelated to a specific development required as a result of growth, are considered part of the complete street are generally development charge applicable.

ii. Streetlights on roads internal to a specific development are 100% developer responsibility.

iii. Streetlights on roads external to development, needed to support a specific development or required to link with areas to which the plan relates are 100% developer responsibility.

d) Active Transportation-Related including Pedestrian and Cycling Facilities

i. Sidewalks, multi-use trails, cycle tracks, and bike lanes, inclusive of all required infrastructure, located on Arterial and Collector roads and Regional roads external and unrelated to a specific development, are considered part of the complete street and are development charge applicable.

ii. Sidewalks, multi-use trails, cycle tracks, and bike lanes, inclusive of all required infrastructure, located on roads external to and needed to support a specific development or required to link with the area to which the plan relates are 100% developer responsibility.

iii. Sidewalks, multi-use trails, cycle tracks, and bike lanes, inclusive of all required infrastructure, located on or linking to road corridors internal to a specific development are 100% developer responsibility.

iv. Multi-use trails (not associated with a road), inclusive of all land and required infrastructure, that go beyond the function of a (parkland) recreational trail and form part of the municipality's active transportation network for cycling and/or walking are development charge applicable.

e) Transit Lanes and Lay-bys

i. Transit lanes and lay-bys located within Arterial, Collector and Regional road corridors external and unrelated to a specific development, are considered part of the complete street and are development charge applicable.

ii. Transit lanes and lay-bys located within road corridors external and needed to support a specific development and or required to link with the area to which the plan relates are 100% developer responsibility.

iii. Transit lanes and lay-bys located within road corridors internal to development are 100% developer responsibility.

f) Transit Bus Stops and Amenities

i. Transit bus stops and amenities located on Arterial and Collector roads and Regional roads external and unrelated to a specific development, are considered part of the complete street and are development charge applicable.

ii. Transit bus stops and amenities located on Arterial and Collector roads and Regional roads external and related to a specific development, are 100% developer responsibility.

iii. Transit bus stops and amenities on road internal to a specific development are 100% developer responsibility.

2. Land Acquisition for Roads

a) Road Allowances

i. Land acquisitions for roads, to the widths required in accordance with the City's Transportation Master Plan and/or City's Official Plan, is primarily provided by dedications under the Planning Act. In areas where limited or no development is anticipated, and direct dedication is unlikely, land acquisitions are development charge applicable.

b) Grade Separations

i. Land acquisitions for Grade Separations (beyond normal dedication requirements) are development charge applicable.

3. Water Works

a) Watermains

i. Watermains internal to the development are a local service and are 100% developer responsibility unless the City requests oversizing in which case the oversizing portion of the watermain is development charge applicable.

ii. Watermains of any size external to a specific development required to connect to an existing local main are 100% developer responsibility.

iii. Watermains of any size required to connect a pumping station or reservoir to the supply network are development charge applicable.

iv. Watermain upgrades external and related to a specific development, for sizing up to and including 200mm are 100% developer responsibility. Oversizing for pipes above 200mm are generally development charge applicable, only if the oversizing is not required for the sole purposes of the specific development.

b) Booster Stations and Reservoirs

i. New or expanded water booster pumping stations and reservoir projects servicing two or more developments are development charge applicable, otherwise are 100% developer responsibility.

4. Wastewater

a) Sanitary Sewers

i. Sewers internal to a specific development are a local service and are 100% developer responsibility unless the City requests oversizing in

which case the oversizing portion of the sewer is development charge applicable.

ii. Sewers of any size external to a specific development required to connect to an existing local sewer are 100% developer responsibility.

iii. Sewers of any size required to connect pumping stations or treatment plants to the collection network are development charge applicable if the pumping stations or treatment plants are identified as development charge applicable.

iv. Sewer upgrades external and related to a specific development, for sizing up to and including 375mm are 100% developer responsibility. Oversizing for pipes above 375mm are generally development charge applicable, only if the oversizing is not required for the sole purposes of the specific development.

b) Pumping Stations

i. New or expanded pumping stations internal or external to a specific development, fed by sewers that are development charge applicable, are also development charge applicable.

ii. New or expanded pumping stations internal or external to a specific development, fed by sewers that are not development charge applicable, are 100% developer responsibility.

The above pipe sizes in section 4 a) (iv) govern, unless the hydraulic conditions of a development require a different pipe size, in which case the minimum pipe size determined by such hydraulic conditions shall be 100% developer responsibility.

5. Land Acquisition for Water and Wastewater Works

a) Booster Stations

i. Where required, land acquisitions within a specific development, for Booster Stations which are development charge applicable, are to be dedicated by the developer as part of the development approval process.

The developer will be reimbursed for the land at the market value. The cost of the lands is development charge applicable.

b) Pumping Stations

Where required, land acquisitions within a specific development, for Pumping Stations which are development charge applicable, are to be dedicated by the developer as part of the development approval process. The developer will be reimbursed for the land at the market value. The cost of the land is development charge applicable.

6. Storm Works & Stormwater Management

a) Storm Sewers

i. Sewers internal to a specific development are a local service and are 100% developer responsibility unless the City requests oversizing in which case the oversizing portion of the sewer is development charge applicable.

ii. Sewers of any size external to a specific development required to connect to an existing local sewer are 100% developer responsibility.

iii. Sewers of any size required to connect stormwater management facilities to the collection network are development charge applicable if the stormwater management facilities are identified as development charge applicable.

iv. Sewer upgrades external and related to a specific development, for oversizing to accommodate the specific development are 100% developer responsibility. Oversizing for pipes above and beyond the needs of the specific development are generally development charge applicable, only if the oversizing is not required for the sole purposes of the specific development.

v. Oversizing costs of sewers, excluding land, to accommodate runoff from new, widened, extended, or upgraded roads are development charge applicable.

b) Stormwater Management Facilities, Erosion Works, and Monitoring

i. Stormwater Management Facilities internal to a specific development are a local service and are 100% developer responsibility unless the City requests oversizing in which case the oversizing portion of the facility is development charge applicable.

ii. Stormwater Management Facilities external to a specific development are development charge applicable, unless solely required for a specific development in which case costs would be 100% developer responsibility.

iii. Stormwater Management Facilities external to a specific development are development charge applicable, unless partly required for a specific development in which case costs the portion required for the specific development would be 100% developer responsibility.

iv. Oversizing costs of stormwater management facilities, excluding land, to accommodate runoff from new, widened, extended, or upgraded roads that are development charge applicable, are also development charge applicable.

v. Erosion works, inclusive of all restoration requirements related to a specific development are 100% developer responsibility.

vi. Monitoring works, post-assumption, are development charge applicable.

7. Land Acquisition for Stormwater Management Facilities and Erosion Works

a) Stormwater Management Facilities

Where required, land acquisitions within a specific development, for Stormwater Management Facilities which are development charge applicable, are to be dedicated by the developer as part of the development approval process. The developer will be reimbursed for the land at the market value. The cost of the lands is development charge applicable.

b) Erosion Works

Where required, land acquisitions within a specific development, for Erosion Works which are development charge applicable, are to be dedicated by the developer as part of the development approval process. The developer will not be reimbursed for the value of these lands.

8. Parkland Development

Recreational Trails

Recreational trails (Multi-use trails) that do not form part of the municipality's active transportation network, and their associated infrastructure (landscaping, bridges, trail surface, etc.), is included in area municipal parkland D.C.'s.

Parkland

Parkland Development for Community Parks, District Parks, Neighbourhood Parks and Village Squares: direct developer responsibility to provide at base condition, as per the parks standards as developed, as a local service provision.

Program facilities, amenities, and furniture, within parkland are included in D.C.s.

9. Landscape Buffer Blocks – Features Cul-de-sac Islands, Berms, Grade Transition Areas, Walkway Connections to Adjacent Arterial Roads, Open Space, Etc.

The cost of developing all landscape buffer blocks, landscape features, cul-de-sac islands, berms, grade transition areas, walkway connections to adjacent arterial roads, open space and other remnant pieces of land conveyed to the municipality shall be a direct developer responsibility as a local service. Such costs include but are not limited to:

i. pre-grading, sodding, or seeding, supply and installation of amended topsoil, (to the Municipality's required depth), landscape features, perimeter fencing and amenities and all plantings.

Perimeter fencing to the Municipal standard located on the public property side of the property line adjacent land uses (such as but limited to arterial roads) as directed by the Municipality.

Recreational Trails

a) Recreational trails (Multi-use trails) that do not form part of the municipality's active transportation network, and their associated infrastructure (landscaping, bridges, trail surface, etc.), is included in area municipal parkland D.C.'s.

Parkland

a) Parkland Development for City Wide Parks, District Parks, and Neighbourhood Parks: direct developer responsibility to provide at base condition, as follows:

    - Clearing and grubbing. Tree removals as per the subdivision's tree preservation and removals plan.
    - Topsoil Stripping, screening, and stockpiling.
    - Rough grading (pre-grading) to allow for positive drainage of the Park, with minimum slopes of 2%. If necessary, this may include some minor drainage tile work and grading as per the overall subdivision grading design complete with any required swales or catch basins. Runoff from the development property shall not drain into the park unless approved by the Manager, Environment Services, Public Works.
    - Spreading of topsoil to 150mm depth (import topsoil if existing on-site is insufficient to reach required depth).
    - Seeding of site with Municipality-approved seed mix. Maintenance of seed until acceptance by Municipality.
    - Parks shall be free of any contaminated soil or subsoil.
    - Parks shall not be mined for fill.

- Parks shall be conveyed free and clear of all encumbrances.
- Shoreline protection, where applicable.

Sidewalks and boulevard plantings along all public road frontages (as per roads section).

- Municipal services should be stubbed to the road allowance (water, sanitary and storm)
- 100% of 1.8m chain link perimeter fencing to the Municipal standards to separate the development lands from the Municipal lands or lands to be dedicated to the Municipality, unless the perimeter fencing is on land that will be dedicated to the Municipality to fulfil the requirement of parkland dedication under the Planning Act, in which case the cost shall be shared 50/50.
    - When Park parcels cannot be developed in a timely manner, they shall be graded to ensure positive drainage and seeded to minimize erosion and dust. These shall be maintained by the developer until construction commences thereon.
    - The Park block shall not be used for topsoil or other construction material, equipment storage, or sales pavilions.
    - Required heritage features within the Park as set out within the Planning approval conditions.

b) Program facilities, amenities, and furniture, within parkland are included in D.C.'s.

Appendix F
Asset Management Plan

Appendix F: Asset Management Plan

The D.C.A. (s. 10 (2) (c.2)) 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, s. 8 of the Regulations was amended to include s. (2), s. (3) and s. (4) which set out for specific detailed requirements for transit (only). For all services except transit, there are no prescribed requirements at this time thus requiring the municipality to define the approach to include within the background study. For transit, the amended regulations provide for a prescriptive evaluation (as discussed later in this Appendix).

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 through 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.

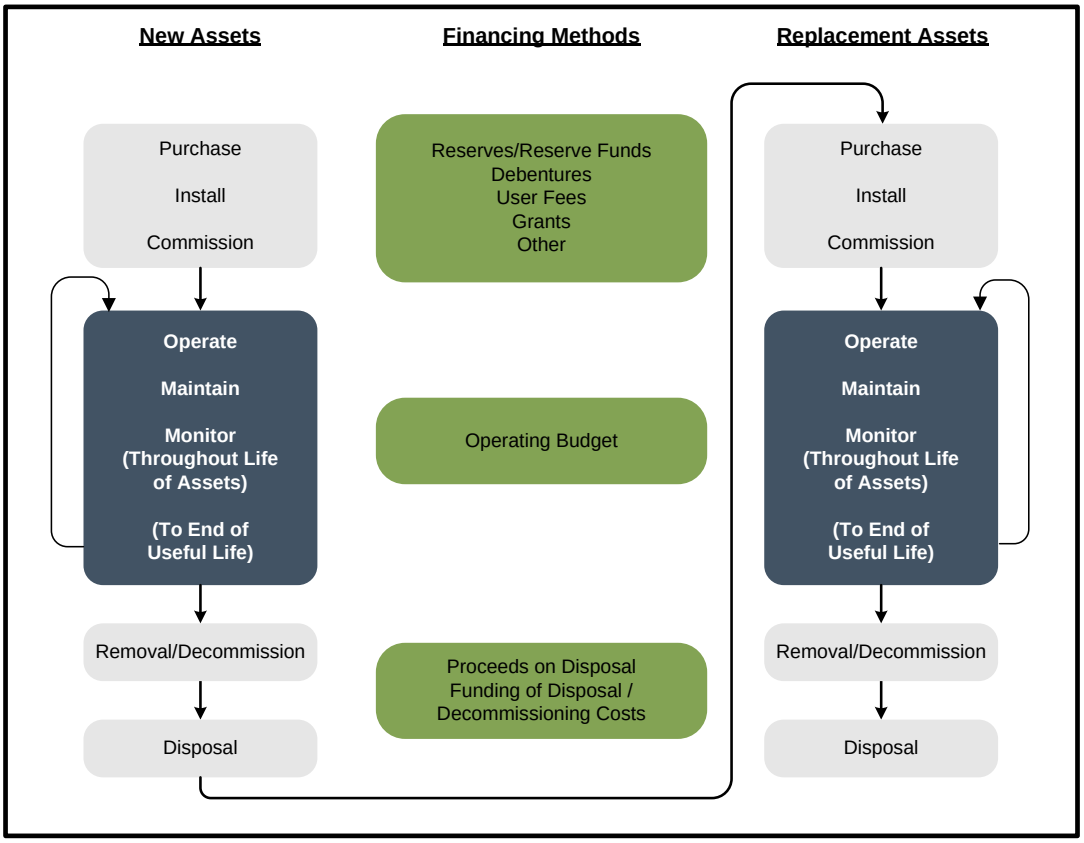
It should be noted that with the recent passing of the Infrastructure for Jobs and Prosperity Act (I.J.P.A.) municipalities are now required to complete A.M.P.s, based on certain criteria, which are to be completed by 2022 for core municipal services and 2025 for all other services. The amendments to 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.

- Phase 1 – Asset Management Plan (by July 1, 2022):
    a. For core assets, municipalities must have the following:
        a. Inventory of assets;
        b. Current levels of service measured by standard metrics; and
        c. Costs to maintain levels of service.

- Phase 2 – Asset Management Plan (by July 1, 2024):
    - Same steps as Phase 1 but for all assets.

- Phase 3 – Asset Management Plan (by July 1, 2025):
    - Builds on Phase 1 and 2 by adding:
        - Proposed levels of service; and
        - Lifecycle management and financial strategy.



In 2012, the Province developed Building Together: Guide for municipal A.M.P.s 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.

Currently the City is undertaking their Asset Management Plan to meet the requirements of Infrastructure for Jobs and Prosperity Act, however it is not complete as at the time of writing this background study. Therefore, City staff and St. Catharines Transit Commission have provided policies and practices related to asset management that have been followed in the past and will form part of their A.M.P. once complete.

In recognition to the schematic above, the following table (presented in 2021$) 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. Due to the timing of the A.M.P. currently underway, not all capital costs included in the D.C. have been included in the City's A.M.P. yet. 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 which will require financing from municipal financial resources (i.e. taxation, rates, fees, etc.). This amount has been presented on an annual debt charge amount based on buildout financing.

2. Lifecycle costs for the 2021 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. The resultant total annualized expenditures are $36.68 million.

5. Consideration was given to the potential new taxation and user fee revenues which will be generated as a result of new growth. These revenues will be available to finance the expenditures above. The new operating revenues are $29.6 million. This amount, totaled with the existing revenues of $223.14 million, provide annual revenues of $252.74 million by 2041.

6. In consideration of the above, the capital plan is deemed to be financially sustainable.

Table F-1
City of St. Catharines
Asset Management – Future Expenditures and Associated Revenues
2021$

	2041 (Total)
Expenditures (Annualized)	
Annual Debt Payment on Non-Growth Related Capital[1] (2014 D.C. and 2016 updates)	7,871,739
Annual Debt Payment on Post Period Capital[2]	457,517
Lifecycle:	
Annual Lifecycle - City-Wide Services	$5,240,810
Incremental Operating Costs (for D.C. Services)	$22,913,504
Total Expenditures	**$36,483,570**
Revenue (Annualized)	
Total Existing Revenue[4]	$223,142,785
Incremental Tax and Non-Tax Revenue (User Fees, Fines, Licences, etc.)	$29,595,731
Total Revenues	**$252,738,516**

[1] Non-Growth Related component of Projects

[2] Interim Debt Financing for Post Period Benefit

[3] All infastructure costs included in Area Specifc by-laws have been

[4] As per Sch. 10 of FIR

Regarding the D.C.A. requirements for asset management for the Transit service, Ontario Regulations 82/98 (as amended) provides the following:

> **8(3) If a council of a municipality proposes to impose a development charge in respect of transit services, the asset management plan referred to in subsection 10 (2) (c.2) of the Act shall include the following in respect of those services:**

The following table and accompanying information provide the individual items prescribed by subsection 8 (3) of the Regulation (as amended) and provides how these items have been address for this D.C. background study by the City:

Table F-2
City of St. Catharines
Summary of Transit Assets

Ontario Regulation 82/98, as amended subsection 8(3) Requirements	Compliance	Link
1. A section that sets out the state of local infrastructure and that sets out:	The City is currently undertaking the formal asset management plan in stages as required by the Infrastructure for Jobs and Prosperity Act, however, the plan has not jet formally included all transit assets. However, for purposes of PSAB, all assets are tracked. Average useful lives are assigned to each asset for purposes of amortization and future replacement. The condition of the assets is review periodically throughout each year and during the budget process maintenance and/or replacement are identified where required and then the work/replacement takes place as required.	
i. the types of assets and their quantity or extent,	See Tables F-3 through F-14 below	
ii. the financial accounting valuation and replacement cost valuation for all assets,	The accounting valuation is based on PSAB 3150 reporting requirements for Tangible Capital Assets and is depreciated using a straight-line amortization method based on the expected useful life of the asset.	
iii. the asset age distribution and asset age as a proportion of expected useful life for all assets, and	See Tables F-3 through F-14 below	
iv. the asset condition based on standard engineering practices for all assets.	Facility asset condition is reviewed through Health and Safety Inspections, components such as HVAC, Water, etc. are reviewed quarterly by a private firm to assess capital needs. The balance of the facility condition is monitored by Transit and City staff on an ongoing basis. Fleet assets are maintained based on MTO standards and are carried out by Transit Mechanics to adhere to the legislative standards.	
2. A section that sets out the proposed level of service and that:		
i. defines the proposed level of service through timeframes and performance measures,	See Dillon Consulting's Transit D.C. Background Study (Appendix G) Sections 5 through 7 - Ten-Year Capital Plan for D.C. Application for level of service for Conventional Transit, Paratransit and Facilities.	
ii. discusses any external trends or issues that may affect the proposed level of service or the municipality's ability to meet it, and	GO Transit - GO has been expanding and there is plans for increased service anticipated within the City. Therefore, the City's transit service may need to support the increased service. The T.M.P. has identified this need. Regionalization Review - There is a review ongoing related to Regionalizing transit services throughout Niagara, the impacts on the City's transit service are unknown at this time however, city and transit staff are taking part in the discussions and if required will identify the possible impacts based on the final review. COVID 19 - Due to COVID-19, typical transit ridership is down however, the service is still being provided at the same level as it was pre-COVID for those that use the service. Transit staff continue to monitor the ongoing situation with COVID-19.	Link to transit master plan
iii. shows current performance relative to the targets set out.	Monitoring of ridership by route and by peak hours are ongoing to inform staff of areas that require increased service to meet demand/frequency to ensure that the ridership targets set out are met.	

Table F-2 (Continued)
City of St. Catharines
Summary of Transit Assets

Ontario Regulation 82/98, as amended subsection 8(3) Requirements	Compliance	Link
3. An asset management strategy that:		
i. sets out planned actions that will enable the assets to provide the proposed level of service in a sustainable way, while managing risk, at the lowest life cycle cost,	Transit has tied its capital funding to the Investing in Canada Infrastructure Program (I.C.I.P.) for replacing and maintaining the current level of service. The City is leveraging the program which has upper level governments cover 73.3% of the cost of capital assets up to $117 million over a 10 year period. The I.C.I.P. program ends in 2027. The I.C.I.P. funding allows us to minimize the tax impact to local taxpayers. Beyond 2027, in the absence of another Federal or Provincial funding program, the City will start to budget capital reserves annually in order to fund capital projects and maintain the current level of service.	https://www.stcatharines.ca/en/governin/resources/Capital-Budget/2021-Approved-Capital-Budget.pdf
ii. is based on an assessment of potential options to achieve the proposed level of service, which assessment compares:		
A. life cycle costs,	Update in Table F-3 to F-14	
B. all other relevant direct and indirect costs and benefits, and	Detailed Operating Budget for Transit is on Appendix A (page 317).	https://www.stcatharines.ca/en/governin/resources/2021-Operating-Budget/2021-Operating-Budget.pdf
C. the risks associated with the potential options,	The risk of not following an Asset Management Plan may result in: • increased lifecycle costs of capital infrastructure and rolling fleet due to unplanned repairs. • increased operating and maintenance costs due to unplanned equipment failure. • risk of violation of Provincial and Federal Regulations including Occupational Health and Safety Act, Ontario Fire Code and Ontario Building Code. • reduced procurement efficiency. • risk of compromised security (vault and fare media). • increased contractual and reputation risks.	
iii. contains a summary of, in relation to achieving the proposed level of service, (not defined clearly) A. non-infrastructure solutions, B. maintenance activities, C. renewal and rehabilitation activities, D. replacement activities, E. disposal activities, and F. expansion activities.	Detailed Operating Budget for Transit is on Appendix A (page 317)	https://www.stcatharines.ca/en/governin/resources/2021-Operating-Budget/2021-Operating-Budget.pdf https://www.stcatharines.ca/en/governin/resources/2021-Operating-Budget/2021-Operating-Budget.pdf

Table F-2 (Continued)
City of St. Catharines
Summary of Transit Assets

Ontario Regulation 82/98, as amended subsection 8(3) Requirements	Compliance	Link
3. An asset management strategy that:		
iv. discusses the procurement measures that are intended to achieve the proposed level of service, and	TRANSIT COMMISSION PURCHASING PRINCIPLES * To promote the most cost effective and efficient use of Commission funds and resources by acquiring the specified goods and services at the optimum quality, quantity, price, delivery and performance. * To encourage open competitive bidding on all acquisitions and disposal of goods and services where practical. The open bidding processes shall be both objective and fair. Objectivity will be maintained through processes that will be developed and implemented in an unbiased manner, not influenced by personal preferences, prejudices or interpretation. Fairness will be maintained by applying the policies equally to all bidders. * Unless otherwise approved by the Commission, to purchase goods and services only as approved in the annual budgets. * To obtain the most competitive offers from the most responsible and responsive vendors. To use vendors who comply with the provisions of the bid solicitation, including specifications and contractual terms and conditions. To use vendors who can be expected to provide satisfactory performance based on reputation, references, past experience, and sufficiency of financial and other resources. * To structure specifications that do not exclude certain vendors or manufacturers unless there is documented evidence to warrant exclusion. * To always consider the “total acquisition cost” rather than the lowest bid. This includes, but is not limited to, such factors as repairs, staff training, suitability, compatibility, warranty, trade-in values, recycling and disposal concerns. * To delegate the appropriate level of authority to enable Commission departments to meet service requirements. To ensure that employees who are responsible for requisitioning and purchasing goods and services are accountable for their actions and decisions. * To participate with other publicly funded bodies in co-operative purchasing activities where they are in the best interest of the Commission.	

Table F-2 (Continued)
City of St. Catharines
Summary of Transit Assets

Ontario Regulation 82/98, as amended subsection 8(3) Requirements	Compliance	Link
3. An asset management strategy that:		
v. includes an overview of the risks associated with the strategy and any actions that will be taken in response to those risks.	Changing technology: Investment in Transit assets are high cost, long term commitments. With rapidly changing technology such as electric vehicles and autonomous vehicles, the City may be required to quickly modify, remove and/or add fleet and facility assets in order to accommodate emerging trends. Funding from Senior Government: Senior levels of Government have recognized gridlock costs Canada's economy billions of dollars in lost productivity and damage to the environment. In recent years, the Government of Canada has provided stimulus money (Public Transit Infrastructure Fund) to improve and expand transit service that provided the City with the necessary funds for fleet and facility maintenance. The Federal and Provincial Governments have indicated future long–term funding announcements can be expected which the City will be reliant on for continued asset management. Cancellation of funding programs will result in budget shortfalls. Regional Transit Governance Review: There is a review ongoing related to Regionalizing transit services throughout Niagara, the impacts on the City's transit service are unknown at this time however, city and transit staff are taking part in the discussions and if required will identify the possible impacts based on the final review. Skilled Labour: The Canadian Trucking Alliance has reported the growing shortage of attracting and retaining heavy duty mechanics is near "crisis". The impact of retiring baby boomers and changing educational values that allowed the mechanic occupation to seem an unappealing career choice for parents to encourage children has significantly impacted the availability of qualified mechanics. The inability to acquire skilled staff to meet growing fleet needs may have financial and service impacts.	

Table F-2 (Continued)
City of St. Catharines
Summary of Transit Assets

Ontario Regulation 82/98, as amended subsection 8(3) Requirements	Compliance	Link
4. A financial strategy that: i. shows the yearly expenditure forecasts that are proposed to achieve the proposed level of service, categorized by, A. non-infrastructure solutions, B. maintenance activities, C. renewal and rehabilitation activities, D. replacement activities, E. disposal activities, and F. expansion activities,	Transit has tied its capital funding to the Investing in Canada Infrastructure Program (I.C.I.P.) for replacing and maintaining the current level of service. The City is leveraging the program which has upper level governments cover 73.3% of the cost of capital assets up to $117 million over a 10 year period. The I.C.I.P. program ends in 2027. The ICIP funding allows us to minimize the tax impact to local taxpayers. City Capital Budget, page 69 shows the forecasted capital budget amount required to support the I.C.I.P. program. This funding is in addition to the Provincial Gas Tax funding that is also used to support Transit's I.C.I.P. plan. Beyond 2027, in the absence of another Federal or Provincial funding program, the City will start to budget capital reserves annually in order to fund capital projects and maintain the current level of service. Fleet Assets are monitored, maintained and planned for replacement based on the lifecycle of the assets. Facility work is prioritized based on condition and urgency of the works. City Operating Budget for Transit is on Appendix A (page 317).	https://www.stcatharines.ca/en/governin/resources/Capital-Budget/2021-Approved-Capital-Budget.pdf
ii. provides actual expenditures in respect of the categories set out in sub-subparagraphs i A to F from the previous two years, if available, for comparison purposes,	Can the capital budget/forecast provide insights into this? - if so, is there a link that can be included and if so, what pages should be referred to for these items? For the prior two years, the Commissions Audited Statements for 2018 and 2019 are available as part of the City's Audited Statements. Included in the statements is a schedule of assets that shows the additions/disposals in each category.	https://www.stcatharines.ca/en/governin/resources/Capital-Budget/2021-Approved-Capital-Budget.pdf
iii. gives a breakdown of yearly revenues by source,	The City has tied its capital funding to the Investing in Canada Infrastructure Program (I.C.I.P.) for replacing and maintaining the current level of service. The City is leveraging the program which covers 73.3% of the cost of capital assets up to $117 million over a 10 year period, which ends in 2027. The I.C.I.P. funding allows us minimize the tax impact to local taxpayers. Beyond 2027, in the absence of another Federal or Provincial funding program, the City will start to budget capital reserves in order to fund capital projects/expansion.	https://www.stcatharines.ca/en/governin/resources/Capital-Budget/2021-Approved-Capital-Budget.pdf

Table F-2 (Continued)
City of St. Catharines
Summary of Transit Assets

Ontario Regulation 82/98, as amended subsection 8(3) Requirements	Compliance	Link
iv. discusses key assumptions and alternative scenarios where appropriate, (see associated text) and	Provincial and Federal Funding- The Province and the Federal Government currently provide a large portion of transit's capital funding through the Investing in Canada Infrastructure Program (I.C.I.P.). This program ends in 2027. Prior to I.C.I.P., there was another upper level capital funding program called PTIF that supported capital investment in Transit. The current governments have discussed willingness provide long term transit funding but any upper level government support beyond 2027 is not committed. Beyond 2027, in the absence of another Federal or Provincial funding program, the City will start to budget capital reserves in order to fund capital projects/expansion. COVID 19 - Due to COVID-19, typical transit ridership is down however, the service is still being provided at the same level as it was pre-COVID for those that use the service. The Provincial and Federal Government have supported Transit Operating Budgets through the Safe Restart Program for 2020 and 2021. Any Funding beyond 2021 has not been secured. There is a risk that decreased levels of ridership may continue for a period of time before returning to normal. Transit staff continue to monitor the ongoing situation with COVID-19 and how it relates to revenue, ridership and service levels.	https://www.stcatharines.ca/en/governin/resources/Capital-Budget/2021-Approved-Capital-Budget.pdf
v. identifies any funding shortfall relative to financial requirements that cannot be eliminated by revising service levels, asset management or financing strategies, and discusses the impact of the shortfall and how the impact will be managed.		

Table F-3
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure - Land

Asset Description	Asset Category	Acquisition Year	Method of Depreciation	Life Remaining	Useful Life when new (years)	Total Historical Cost	Net Book Value 12/31/2020
Transit Commission Land	Land	1991	N/A	N/A	N/A	357,225.00	357,225.00
Total						**357,225.00**	**357,225.00**

Table F-4
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Land Improvements

Asset Description	Asset Category	Asset Sub Category	Acquisition Year	Method of Depreciation	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
Fencing	Land Improvements	Fencing	2002	Straight Line	25	44,279.00	11,512.54	83,800
Parking Lot Maint (Lighted)	Land Improvements	Parking Lot	1991	Straight Line	15	274,766.00	-	684,900
Parking Lot Admin (Lighted)	Land Improvements	Parking Lot	1991	Straight Line	15	336,716.00	-	839,300
Admin Front Entrance Paving	Land Improvements	Parking Lot	2013	Straight Line	15	35,437.92	18,984.18	44,100
Asphalt Paving at DTT	Land Improvements	Parking Lot	2014	Straight Line	15	58,832.92	35,292.25	72,300
Asphalt Paving at DTT	Land Improvements	Parking Lot	2017	Straight Line	15	37,295.04	28,592.86	42,400
Parking Lot Maintenance (South)	Land Improvements	Parking Lot	2018	Straight Line	15	37,692.24	31,410.20	41,000
Total						**825,019.12**	**125,792.03**	**1,807,800**

Table F-5
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Buildings

Asset Description	Asset Category	Acquisition Year	Method of Depreciation	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value12/31/2020	Replacement Value (2021$)
Building Sign	Building	1991	Straight Line	30	10,300	172	25,700
HVAC Units	Building	2014	Straight Line	25	331,422	252,097	407,100
Lighting Upgrades	Building	2014	Straight Line	5	40,872	-	50,200
Transit Commission Building	Building	1991	Straight Line	75	7,066,694	4,292,025	17,615,400
Bathroom Rebuild	Building	2017	Straight Line	25	65,703	59,133	74,700
Garage Expansion	Building	2017	Straight Line	25	123,960	111,564	140,900
Garage Expansion	Building	2018	Straight Line	25	1,759,502	1,583,552	1,912,600
Total					**9,398,453**	**6,298,542**	**20,226,600**

Table F-6
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Structures

Asset Description	Asset Category	Acquisition Year	Method of Depreciation	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
Temporary Storage Facility	Structures	2008	Straight Line	10	104,000.00	-	135,600
Storage Facility Addition	Structures	2012	Straight Line	20	1,075,451.03	672,156.89	1,344,400
DTT Counter	Structures	2016	Straight Line	10	38,536.50	21,195.07	45,200
Electronic Gates	Structures	2018	Straight Line	12	96,723.89	76,573.08	105,100
Bus Stops	Structures	2019	Straight Line	15	544,132.27	569,960.16	569,600
DTT- Lunch Room and Bathroom upgrade	Structures	2020	Straight Line	15		16,790.40	17,100
Total					**1,858,843.69**	**1,356,675.60**	**2,217,000**

Table F-7
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Equipment

Asset Description	Asset Category	Acquisition Year	Method of Depreciation	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
Inground 2 post Hoist	Equipment	1991	Straight Line	18	100,885.00	-	251,500
Inground 2 post Hoist	Equipment	1991	Straight Line	18	100,810.00	-	251,300
Inground 2 post Hoist	Equipment	1991	Straight Line	18	100,810.00	-	251,300
Inground 2 post Hoist	Equipment	1991	Straight Line	18	100,610.00	-	250,800
Inground 2 post Hoist	Equipment	2008	Straight Line	18	92,800.00	28,355.55	121,000
Inground 3 Post Hoist	Equipment	1991	Straight Line	18	137,268.00	-	342,200
Overhead Crane	Equipment	1991	Straight Line	25	6,575.00	-	16,400
Brake Lathe	Equipment	1992	Straight Line	25	37,592.00	-	94,200
Emission Testing Equipment	Equipment	2000	Straight Line	10	22,000.00	-	44,300
AC Recovery Unit	Equipment	2005	Straight Line	10	8,300.00	-	13,500
Tire Machine	Equipment	2005	Straight Line	20	11,500.00	2,587.50	18,700
Compressor - Shop	Equipment	2003	Straight Line	10	10,986.00	-	20,100
Compressor Shop	Equipment	2003	Straight Line	10	10,986.00	-	20,100
Fuel Pump	Equipment	2006	Straight Line	18	17,200.00	3,344.45	26,200
Paint Booth	Equipment	1991	Straight Line	30	109,575.00	1,826.25	273,100
Service Lane Exhaust System	Equipment	2004	Straight Line	20	23,000.00	4,025.00	39,400
Lift Truck	Equipment	2008	Straight Line	10	14,000.00	-	18,200
Scissor Lift	Equipment	2009	Straight Line	10	10,362.60	-	13,800
Bicycle Racks	Equipment	2009	Straight Line	15	19,209.00	4,482.10	25,500
Farebox System	Equipment	2010	Straight Line	20	2,035,573.00	966,897.17	2,706,800
Truck Hoist	Equipment	2010	Straight Line	18	18,900.00	7,875.00	25,100
Additional farebox systems (2)	Equipment	2010	Straight Line	20	46,820.00	22,239.50	62,300
Bike Racks	Equipment	2011	Straight Line	15	24,920.39	9,137.48	31,800
Overhead Hoist	Equipment	2011	Straight Line	25	17,870.07	11,079.44	22,800
HVAC unit	Equipment	2011	Straight Line	25	21,854.00	13,549.48	27,900
Electronic Lock System	Equipment	2012	Straight Line	12	51,272.00	14,954.34	64,100
Radio System	Equipment	2012	Straight Line	12	116,521.00	33,985.29	145,700
Parts Cleaner	Equipment	2012	Straight Line	10	10,115.00	1,517.25	12,600
Emission Testing Equipment	Equipment	2012	Straight Line	10	15,182.00	2,277.30	19,000
Garage Lighting Upgrade	Equipment	2012	Straight Line	30	63,852.94	45,761.27	79,800
Hoist Rollers + Equip	Equipment	2012	Straight Line	12	8,875.87	2,588.79	11,100
4 Fareboxes	Equipment	2013	Straight Line	12	72,198.72	27,074.52	89,900
HVAC Controls Upgrade	Equipment	2013	Straight Line	20	39,804.44	24,877.78	49,600
Smartwasher	Equipment	2014	Straight Line	10	3,039.94	1,063.98	3,700
Fuel Tank - 100,000 L Capacity	Equipment	2015	Straight Line	25	372,239.07	290,346.47	449,000
Portable Hoist	Equipment	2018	Straight Line	5	53,753.70	5,375.37	58,400
New Backup Generator	Equipment	2018	Straight Line	15	345,012.47	287,510.39	375,000
3 New storage tanks	Equipment	2018	Straight Line	25	174,822.96	157,340.66	190,000
Bus Wash	Equipment	2018	Straight Line	20	203,925.00	178,434.37	221,700
7 Fareboxes	Equipment	2018	Straight Line	10	189,370.27	142,027.71	205,900
1 Farebox (ParaBus)	Equipment	2019	Straight Line	10	27,322.56	23,224.17	28,600
Tennant Sweeper	Equipment	2020	Straight Line	10		76,697.63	78,200
Total					**4,847,714.00**	**2,390,456.21**	**7,050,600**

Table F-8
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Furniture

Asset Description	Acquisition Year	Method of Depreciation	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
Detail Furniture	2012	Straight Line	20	11,036	6,345.70	13,800
Total				**11,036**	**6,345.70**	**13,800**

Table F-9
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Information Technology Equipment

Asset Description	Asset Category	Acquisition Year	Method of Depreciation	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
Radio System	IT Equipment	2003	Straight Line	10	92,000.00	-	167,900
New computers (3) SAS	IT Equipment	2010	Straight Line	5	17,160.00	-	22,800
Front entrance cameras, DVR	IT Equipment	2010	Straight Line	10	7,479.36	-	9,900
Telephone System	IT Equipment	2012	Straight Line	12	22,577.00	6,584.96	28,200
Network Cabling	IT Equipment	2012	Straight Line	12	23,489.00	6,850.96	29,400
Gates Server	IT Equipment	2012	Straight Line	5	1,731.45	-	2,200
Sched21 Server	IT Equipment	2012	Straight Line	6	6,756.86	-	8,400
Stop Announc. System	IT Equipment	2012	Straight Line	15	22,810.52	9,884.56	28,500
Auto Vehicle Location System	IT Equipment	2012	Straight Line	12	1,648,583.21	641,600.99	2,060,800
Seon Video System (Buses)	IT Equipment	2013	Straight Line	6	301,036.60	-	374,800
Wayside Signs	IT Equipment	2013	Straight Line	5	93,880.72	-	116,900
RTA Maintenance Mgmt System	IT Equipment	2013	Straight Line	10	18,318.66	6,411.53	22,800
Parking Lot Barrier and Gates	IT Equipment	2013	Straight Line	5	56,702.20	-	70,600
Clever Reports	IT Equipment	2014	Straight Line	12	142,214.37	77,032.78	174,700
IT Hardware	IT Equipment	2014	Straight Line	4	24,776.43	-	30,400
New Server	IT Equipment	2015	Straight Line	4	20,300.10	-	24,500
City Wide - Asset Mgmt Software	IT Equipment	2016	Straight Line	5	8,252.72	825.27	9,700
Remix - Planning Software	IT Equipment	2016	Straight Line	2	29,667.00	-	34,800
APC on Buses	IT Equipment	2017	Straight Line	8	720,190.12	405,106.95	818,700
Driver Mgmt & Timekeeping System	IT Equipment	2018	Straight Line	6	178,598.67	237,099.23	194,100
Building Cameras - Admin & DTT	IT Equipment	2017	Straight Line	6	108,454.42	45,189.34	123,300
Cleverworks Software	IT Equipment	2017	Straight Line	6	310,779.31	135,257.00	353,300
Access Controls - Admin & DTT	IT Equipment	2018	Straight Line	5	203,677.73	142,574.41	221,400
AVM on Buses	IT Equipment	2017	Straight Line	8	388,381.61	218,464.66	441,500
Cleverworks Software	IT Equipment	2018	Straight Line	5	157,032.05	109,922.43	170,700
Cameras on Bus Shelters DTT	IT Equipment	2019	Straight Line	5	8,525.59	5,967.91	8,900
Modem Upgrade (Clever)	IT Equipment	2020	Straight Line	5		291,177.58	297,000
Mobile Ticketing Validators (Masabi)	IT Equipment	2020	Straight Line	4		161,253.06	164,500
Total					**4,613,375.70**	**2,501,203.62**	**6,010,700**

Table F-10
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Vehicles

Asset Description	Asset Category (See list)	Acquisition Year	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
2003 NEW FLYER 40 FT BUS	Vehicles	2003	12	423,100.00	-	675,000
2004 NEW FLYER 40 FT BUS	Vehicles	2004	12	422,000.00	-	675,000
2004 NEW FLYER 40 FT BUS	Vehicles	2004	12	422,000.00	-	675,000
2004 NEW FLYER 40 FT BUS	Vehicles	2004	16	466,148.58	-	675,000
2004 NEW FLYER 40 FT BUS	Vehicles	2004	12	422,000.00	-	675,000
2004 NEW FLYER 40 FT BUS	Vehicles	2004	12	422,000.00	-	675,000
2005 NEW FLYER 40 FT BUS	Vehicles	2005	12	430,000.00	-	675,000
2005 NEW FLYER 40 FT BUS	Vehicles	2005	12	430,000.00	-	675,000
2005 NEW FLYER 40 FT BUS	Vehicles	2005	12	430,000.00	-	675,000
2005 NEW FLYER 40 FT BUS	Vehicles	2005	12	430,000.00	-	675,000
2006 NEW FLYER 40 FT BUS	Vehicles	2006	16	474,905.67	-	675,000
2006 NEW FLYER 40 FT BUS	Vehicles	2006	12	430,000.00	-	675,000
2006 NEW FLYER 40 FT BUS	Vehicles	2006	12	430,000.00	-	675,000
2006 NEW FLYER 40 FT BUS	Vehicles	2006	12	430,000.00	-	675,000
2006 NEW FLYER 40 FT BUS	Vehicles	2006	12	430,000.00	-	675,000
2006 NEW FLYER 40 FT BUS	Vehicles	2006	12	430,000.00	-	675,000
2006 NEW FLYER 40 FT BUS	Vehicles	2006	12	430,000.00	-	675,000
2006 NEW FLYER 40 FT BUS	Vehicles	2006	12	430,000.00	-	675,000
2007 NEW FLYER 40 FT BUS	Vehicles	2007	12	670,000.00	-	675,000
2007 NEW FLYER 40 FT BUS	Vehicles	2007	12	670,000.00	-	675,000
2007 NEW FLYER 40 FT BUS	Vehicles	2007	12	670,000.00	-	675,000
2007 NEW FLYER 40 FT BUS	Vehicles	2007	12	670,000.00	-	675,000
2007 NEW FLYER 40 FT BUS	Vehicles	2007	12	670,000.00	-	675,000
2007 NEW FLYER 40 FT BUS	Vehicles	2007	12	670,000.00	-	675,000

Table F-10 (Continued)
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Vehicles

Asset Description	Asset Category (See list)	Acquisition Year	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
2007 NEW FLYER 40 FT BUS	Vehicles	2007	12	670,000.00	-	675,000
2006 GMC Pick Up	Vehicles	2006	10	43,000.00	-	65,500
2007 DODGE VAN	Vehicles	2007	7	21,000.00	-	30,000
2007 DODGE VAN	Vehicles	2007	7	21,000.00	-	30,000
Lawn Tractor	Vehicles	2005	10	13,000.00	-	21,100
2008 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2008	12	670,000.00	-	675,000
2008 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2008	12	670,000.00	-	675,000
2008 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2008	12	670,000.00	-	675,000
2008 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2008	12	670,000.00	-	675,000
2008 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2008	12	670,000.00	-	675,000
2008 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2008	12	670,000.00	-	675,000
2008 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2008	12	670,000.00	-	675,000
2008 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2008	12	670,000.00	-	675,000
2009 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2009	12	670,000.00	27,916.66	675,000
2009 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2009	12	670,000.00	27,916.66	675,000
2009 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2009	12	670,000.00	27,916.66	675,000
2009 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2009	12	670,000.00	27,916.66	675,000
2010 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2010	12	653,655.00	81,706.87	675,000
2010 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2010	12	653,655.00	81,706.87	675,000
2010 NEW FLYER 40 FT BUS - Hybrid	Vehicles	2010	12	653,655.00	81,706.87	675,000
Dodge Van	Vehicles	2010	7	23,642.00	-	31,400
Dodge Van	Vehicles	2010	7	23,642.00	-	31,400
Shuttle Van	Vehicles	2011	7	24,428.51	-	31,200
2011 New Flyer Bus (IMT) Non Hybrid	Vehicles	2011	12	428,094.00	89,186.25	675,000
2011 New Flyer Bus (IMT) Non Hybrid	Vehicles	2011	12	428,094.00	89,186.25	675,000

Table F-10 (Continued)
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Vehicles

Asset Description	Asset Category (See list)	Acquisition Year	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
2011 New Flyer Bus (IMT) Non Hybrid	Vehicles	2011	12	428,094.00	89,186.25	675,000
Dodge	Vehicles	2012	7	23,813.00	-	29,800
2013 Dodge Caravan	Vehicles	2013	7	24,809.14	-	30,900
2013 Dodge Pick-Up Truck	Vehicles	2013	7	46,208.68	-	57,500
New Flyer Bus #1301	Vehicles	2013	12	361,873.49	135,702.56	675,000
New Flyer Bus #1302	Vehicles	2013	12	361,873.49	135,702.56	675,000
New Flyer Bus #1303	Vehicles	2013	12	361,873.49	135,702.56	675,000
New Flyer Bus #1304	Vehicles	2013	12	361,873.49	135,702.56	675,000
Shuttle Van #1430	Vehicles	2014	7	19,836.65	1,416.90	24,400
Shuttle Van #1431	Vehicles	2014	7	24,063.97	1,718.86	29,600
Shuttle Van #1432	Vehicles	2014	7	24,063.97	1,718.86	29,600
New Flyer Bus #1401	Vehicles	2014	12	440,260.45	201,786.04	675,000
New Flyer Bus #1402	Vehicles	2014	12	440,260.45	201,786.04	675,000
New Flyer Bus #1460	Vehicles	2014	12	750,944.69	344,182.98	675,000
New Flyer Bus #1461	Vehicles	2014	12	750,944.69	344,182.98	675,000
Nova Bus 60' - #1560	Vehicles	2015	12	726,855.01	393,713.13	675,000
Nova Bus 40' - 1501	Vehicles	2015	12	471,800.79	256,161.99	675,000
Nova Bus 40' - 1502	Vehicles	2015	12	471,800.79	256,161.99	675,000
Nova Bus 40' - 1503	Vehicles	2015	12	471,800.78	256,161.99	675,000
Nova Bus 40' - 1504	Vehicles	2015	12	471,800.78	256,161.99	675,000
Nova Bus 40' - 1601	Vehicles	2016	12	484,268.21	302,667.63	675,000
Nova Bus 40' - 1602	Vehicles	2016	12	484,268.21	302,667.63	675,000
Nova Bus 40' - 1603	Vehicles	2016	12	484,268.21	302,667.63	675,000
Nova Bus 40' - 1604	Vehicles	2016	12	484,268.21	302,667.63	675,000
Nova Bus 40' - 1605	Vehicles	2016	12	484,268.20	302,667.63	675,000

Table F-10 (Continued)
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Vehicles

Asset Description	Asset Category (See list)	Acquisition Year	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
Shuttle Van #1630	Vehicles	2016	7	22,987.42	8,209.79	26,900
Shuttle Van #1631	Vehicles	2016	7	25,076.56	8,955.92	29,400
Seats	Vehicles	2016	12	84,477.68	59,838.36	99,000
Engines	Vehicles	2016	6	333,643.77	139,018.24	391,100
Body Refurbs	Vehicles	2016	6	219,873.05	91,613.78	257,700
Service Maintenance Truck	Vehicles	2017	8	117,805.76	66,265.74	133,900
Nova Bus 60'	Vehicles	2018	12	836,852.46	662,508.20	909,700
Nova Bus 60'	Vehicles	2018	12	836,852.46	662,508.20	909,700
Nova Bus 60'	Vehicles	2018	12	836,852.46	662,508.20	909,700
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.51	408,777.49	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Nova Bus 40'	Vehicles	2018	12	516,350.28	408,777.30	675,000
Total				**42,982,188.09**	**12,871,179.67**	**54,059,500**

Table F-11
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Paratransit - Information Technology Equipment

Asset Description	Asset Category	Acquisition Year	Costing Method	Method of Depreciation	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
Paratransit Scheduling Software	IT Equipment	2014	Actual Cost	Straight Line	7	251,597.94	55,675.35	309,100
CAD Software	IT Equipment	2017	Actual Cost	Straight Line	7	62,480.64	31,240.32	71,000
Clever System (ParaBus 2019)	IT Equipment	2019	Actual Cost	Straight Line	5	7,977.98	5,584.58	8,400
Total						**322,056.56**	**92,500.26**	**388,500**

Table F-12
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Paratransit Fleet

Asset Description	Asset Category	Acquisition Year	Method of Depreciation	Useful Life when new (years)	Total Historical Cost 12/31/2019	Net Book Value 12/31/2020	Replacement Value (2021$)
2008 CHEV PARATRANSIT	Vehicles	2008	Straight Line	7	84,947.00	-	110,700
2009 Dodge Paravan	Vehicles	2009	Straight Line	12	50,700.00	2,112.50	67,400
2011 Paratransit Vehicle	Vehicles	2010	Straight Line	7	82,411.00	-	109,600
Dodge Paravan	Vehicles	2012	Straight Line	7	45,509.00	0.00	56,900
Low Floor Para Vehicle #1420	Vehicles	2014	Straight Line	7	150,452.47	10,746.60	184,800
Paravan #1421	Vehicles	2014	Straight Line	7	39,554.63	2,825.33	48,600
Low Floor - Unit 1620	Vehicles	2016	Straight Line	7	151,955.20	54,269.72	178,100
2018 Dodge Low Floor ProMaster CS-2 VIN 308	Vehicles	2018	Straight Line	7	118,631.70	76,263.24	129,000
2018 Dodge Low Floor ProMaster CS-2 VIN 309	Vehicles	2018	Straight Line	7	118,631.70	76,263.24	129,000
2017 GM Glaval Titan II accessible bus- #1822	Vehicles	2018	Straight Line	12	133,651.12	105,807.13	145,300
2017 GM Glaval Titan II accessible bus- #1823	Vehicles	2018	Straight Line	12	133,651.12	105,807.13	145,300
2017 GM Glaval Titan II accessible bus (18 seat)- #1824	Vehicles	2018	Straight Line	12	151,320.89	119,795.70	164,500
2017 GM Glaval Titan II accessible bus (18 seat)- #1825	Vehicles	2018	Straight Line	12	151,320.89	119,795.70	164,500
2019 GM Glaval Titan II accessible bus (18 seat)- #1920	Vehicles	2019	Straight Line	12	158,519.07	138,704.19	165,900
Total					**1,571,255.79**	**812,390.48**	**1,799,600.00**

Table F-13
City of St. Catharines
Transit Asset Management
Current Transit Infrastructure – Service and Shuttle Fleet

Asset Description	Asset Category	Acquisition Year	Method of Depreciation	Useful Life when new (years)	Net Book Value 12/31/2020	Replacement Value (2021$)
Shuttle Van #2030	Service and Shuttle	2020	Straight Line	7	24,586.67	25,100
Shuttle Van #2031	Service and Shuttle	2020	Straight Line	7	24,586.67	25,100
Shuttle Van #2032	Service and Shuttle	2020	Straight Line	7	24,586.67	25,100
Shuttle Van #2033	Service and Shuttle	2020	Straight Line	7	24,586.67	25,100
Shuttle Van #2034	Service and Shuttle	2020	Straight Line	7	24,586.67	25,100
Shuttle Van #2035	Service and Shuttle	2020	Straight Line	7	24,586.67	25,100
Shuttle Van #2036	Service and Shuttle	2020	Straight Line	7	24,586.67	25,100
Total					**172,106.69**	**175,700**

Appendix G
Transit Servicing Needs – Dillon Consulting Limited

City of St. Catharines

2021 Transit Development Charge Background Study

Appendix G

May 2021 - 20-2370

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Figures

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1.0 Introduction

1.1 Background

The City of St. Catharines (the City) will experience moderate growth over the next ten years. Population is anticipated to increase from approximately 138,000 in 2021 to 148,000 in 2031 and employment is anticipated to increase from 53,000 to 65,000 during this same period (Source: Watson & Associates Economists Limited).

The Development Charges Act, 1997, as amended (D.C.A.) regulates when and how municipalities may collect Development Charges (D.C.). Changes in the D.C.A., which came into effect in January 2016, have resulted in alterations to growth-related transit funding mechanisms. These requirements are summarized as follows:

- The mandatory 10% reduction of eligible growth-related capital costs was removed for transit services, allowing growth related transit services to be 100% eligible for recovery through D.C.; and
- The introduction of planned levels of services for transit, with the prescribed method and criteria to establish the service level (outlined in O.Reg. 428/15). This allows municipalities to be forward-looking in estimating future level of service for transit D.C. calculations and apportion them to growth accordingly. It also included new highly prescriptive reporting requirements associated with the background reporting for D.C.

Under the 2016 amendment to the D.C.A., the following reporting requirements needed to be outlined in the D.C. 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 D.C. period and after the ten-year D.C. period;
- An identification of the anticipated excess capacity that would exist at the end of the ten-year D.C. 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 D.C.

The purpose of this technical appendix is to identify the growth to existing conventional, specialized transit and support vehicle capital requirements, as well as the benefit of these investments to the existing and growth populations, both in-period and post-period. This will inform the City's 2021 D.C. Background Study prepared by Watson & Associates Economists Limited (Watson & Associates).

1.2 Adjustment for COVID-19

In early 2020, COVID-19 began to emerge globally. Stay at home orders, quarantines, lock downs and the closing of all non-essential workplaces caused disruptions to travel. This caused ridership to significantly decrease on St. Catharines' conventional and specialized transit service since the start of the pandemic.

From a D.C. perspective, this impacts the ridership that is identified for the 2021 base year. Since the start of the pandemic, St. Catharines has made some adjustments in service levels to accommodate for a reduction in ridership. However, the transit fleet in place today is based on the population and associated transit ridership that existed prior to the COVID-19 pandemic (2019). Expectations from the transit industry is that ridership will recover over a 2 to 5 year period as the population is vaccinated. Additional ridership growth within the 10-year D.C. period is also anticipated to meet the City's transportation objectives, based on transit investments identified in the Draft City of St. Catharine's Transportation Master Plan.

Based on the above, using the existing 2020 ridership as a base year is not reasonable since:

- The existing transit fleet is based on the anticipated ridership that would have been achieved in 2020 had the COVID-19 pandemic not occurred; and
- Any transit ridership growth over the first few years of the D.C. would be associated with recovery from the COVID-19 pandemic and society returning to 'normal'. This ridership growth would not be a result of improved transit service

levels and associated capital investment in the transit system (which is used to calculate the benefit to growth and existing).

Therefore, a decision was made to establish a base-year ridership assuming no impact due to the COVID-19 pandemic. For conventional transit, this was calculated by using the 2019 transit ridership from the routes that will see a capital investment as a starting point. For specialized transit, this was calculated by growing the 2019 registrants based on population growth and an aging population and applying the number of trips per registrant to the forecasted 2021 registrants.

2.0 Growth Forecasts

Table 1 presents the population and employment growth anticipated in St. Catharines. Population and employment data for mid-2021, mid-2031, and mid-2041 were provided by Watson & Associates.

Note that the D.C. period is from January 1, 2021 to December 31, 2030. For the purposes of calculations in this document, the population and employment in Mid-2021 and Mid-2031 represent the beginning and end of the D.C. period respectively. This is due to an assumed half year delay in unit occupancy.

Table 1: Population and Employment Forecasts (2021 - 2041)

Category	2021	2031	2041
Population[1]	137,886	148,099	163,865
Employment[2]	53,243	58,541	65,542

Residential growth was also broken down by unit type and horizon 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 reduction in existing population from 2021 to 2031 and the increase in existing population from 2031 to 2041.

[1] Population count includes institutional population and off-campus students, but excludes census undercount.
[2] Employment forecast excludes work at home and no fixed place of work.

Table 2: Population by Horizon and Housing Type

Horizon	Singles	Multiples	Apartments	Institutional	Other	Total
Existing Population	92,188 (66.86%)	17,463 (12.66%)	24,360 (17.67%)	3,390 (2.46%)	485 (0.35%)	**137,886 (100.00%)**
Reduction in Existing Population (2021-2031)	No Data	No Data	No Data	No Data	No Data	-1,351
2021-2031 Growth Population	2,137 (18.48%)	2,857 (24.71%)	6,329 (54.73%)	240 (2.08%)	0 (0.00%)	11,563[3] (100.00%)
2031 Total Population	No Data	No Data	No Data	No Data	No Data	**148,099**
Increase in Existing Population (2031-2041)	No Data	No Data	No Data	No Data	No Data	412
2031-2041 Growth Population	1,819 (11.85%)	2,780 (18.11%)	10,368 (67.53%)	387 (2.52%)	0 (0.00%)	15,354 (0.00%)
2041 Total Population	No Data	No Data	No Data	No Data	No Data	**163,865**

The table above reflect changes to the population in the existing housing stock. This is due to changes in persons per unit due to aging of the population, family life cycle changes, lower fertility rates, and changing economic conditions. Between 2021 and 2031, this is forecasted to result in a small decrease in existing population, while beyond 2031, this is expected to result in a slight increase (as identified in **Table 2**).

Table 3 provides additional detail on the population changes within the existing housing stock between 2016 and 2041. These figures were calculated based on population statistics provided by Watson & Associates.

[3] The growth forecast provided by Watson & Associates includes 11,564 people in the 2021-2031 growth population. When broken down by housing type, the population sums to 11,563 when rounded. In order to be conservative, 11,563 was used as the growth population for calculations in this report.

Table 3: Population in Existing Housing Stock from 2016 to 2041

Year	Population in Existing Housing Stock
2016	133,113
2019[4]	135,977
2021	137,886
2031	136,535
2041	136,947

[4] Assumes linear population growth between 2016 and 2021. The 2019 population was calculated as it is used for transit boardings per capita calculations in **Section 5.0**.

3.0 Transit in St. Catharines

3.1 Existing Transit Network

The City of St. Catharines operates a conventional transit service within its urban area with limited service to the City of Thorold. Some service is also contracted by Brock University.

There are 27 bus routes operated using a fleet of 67 40-foot buses and six (6) 60-foot articulated buses.

Paratransit service is delivered to 1,355 registrants (in 2019) using a fleet of 13 22-foot and 24-foot accessible cutaway buses.

3.2 Future Conventional Transit Network

The Draft 2021 City of St. Catharines "Designed to Move" Transportation Master Plan (referred to as the Transportation Master Plan or T.M.P. in this report) documents a series of service improvements that will occur both within and after the 10-year D.C. period. Note that this document was in draft at the time of this study.

Only service improvements that require new capital spending and are expected to occur within the next ten years are relevant to this study. For example, service hour extensions may be implemented in the next ten years, however they are not relevant to this study because no new buses are required to expand off-peak service.

The following capital costs associated with the following in-period service improvements are eligible for D.C. funding:

- **Add Downtown Connection on Route 314 / 414:** Route 314 operates in a one-way loop primarily serving Carlton Street, Scott Street and Fairview Mall. Within the D.C. period, this route will be modified with a two-way connection to Downtown via Lake Street and will require an expansion 40-foot bus.
- **P.M. Peak Frequency Increase on Routes 301, 302, 303, 308, 309, 312:** Six routes will have frequency increases from every 30 minutes to every 15 minutes during the P.M. peak period. This will require six expansion 40-foot buses to operate.

- **GO-VIA Shuttle:** The shuttle service connecting the train station to Downtown will be expanded. It currently operates sporadically as needed but will be upgraded to a fixed route within the D.C. period. This will require a 24-foot cutaway bus to operate.

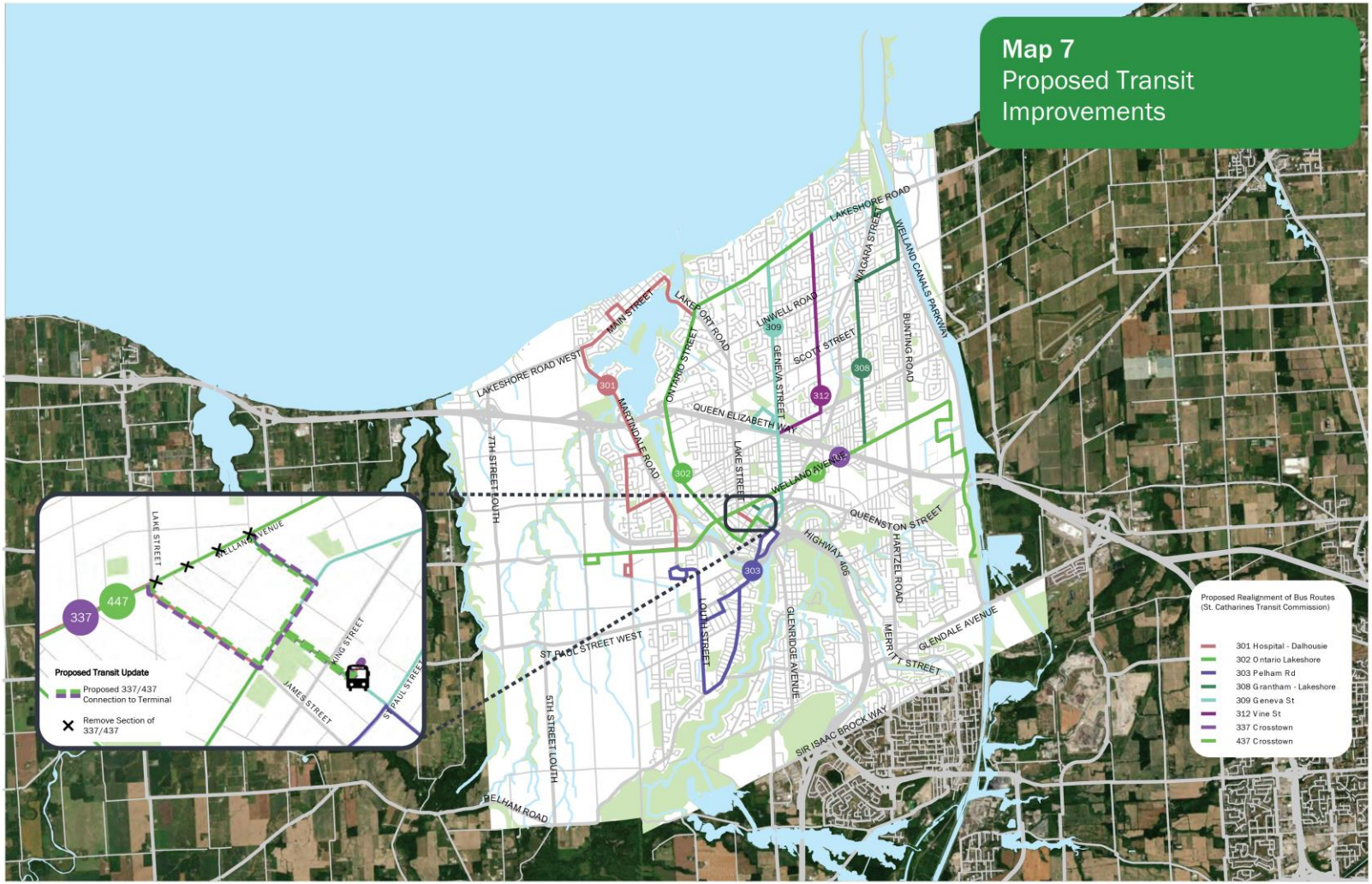
Table 4 identifies the transit service improvements proposed in the Transportation Master Plan, the expected horizon, and whether the capital improvement associated with the improvement are D.C. eligible.

Table 4: Transportation Master Plan Service Improvements

Service Improvement	Capital Spending Required	Horizon	Eligible for D.C. Funding
Extend Route 337 / 437 Crosstown	Yes	Implemented in 2019	No
Add Downtown Connection to Route 314 / 414	Yes	Short Term	Yes
P.M. Peak Frequency Increase on Routes 301, 302, 303, 308, 309, 312	Yes	Short Term	Yes
GO-VIA Shuttle	Yes	Short Term	Yes
Evening Service Hours Extension	No	Medium Term	No
P.M. Peak Frequency Increase on all 300-series routes	Yes	Long Term	No

Figure 1 illustrates a map of the proposed improvements sourced directly from the Draft City of St. Catharines Transportation Master Plan. Note that the GO-VIA Shuttle and the Downtown Connection on Route 314 / 414 are not pictured.

Figure 1: Proposed Transit Improvements



Source: Map 7 in Draft St. Catharines Transportation Master Plan

4.0 Ten-Year Capital Plan

The ten-year capital plan includes all capital spending that is expected in the next ten-years for conventional transit and paratransit. Some items were sourced from the draft Transportation Master Plan, while others were added based on consultation with the St. Catharines Transit staff. The capital plan is summarized in **Table 5** and elaborated on throughout this document. Note that the costs in this document refer to total costs based on 2021 dollars, and do not account for other funding sources.

Table 5: Ten-Year Capital Plan

Item	Number	Unit Cost	Total Cost	Description
40-Foot Bus	6	$800,000	$4,800,000	For P.M. peak frequency improvements; see **Section 5.0**
40-Foot Bus	1	$800,000	$800,000	For Downtown Connection on Route 314; see **Section 5.3**
40-Foot Bus	2	$800,000	$1,600,000	Increase spare buses to maintain spare ratio; see **Section 5.5**
Cutaway Bus	1	$250,000	$250,000	For GO-VIA Shuttle; see **Section 5.4**
Cutaway Bus	4	$250,000	$1,000,000	Peak paratransit vehicles; see **Section 6.2**
Cutaway Bus	1	$250,000	$250,000	Increase spare paratransit vehicles to maintain spare ratio; see **Section 6.2**
Supervisor Vehicle	1	$45,000	$45,000	To account for increase in peak fleet; see **Section 7.1**
Facility	1	$9,890,000	$9,890,000	To accommodate planned fleet growth, see **Section 7.2**
Total	Not Applicable	Not Applicable	**$18,635,000**	Not Applicable

5.0 Apportioning Benefit (Conventional Fleet)

The D.C.A., as amended, requires that the increased need for service be reduced by the extent to which a service would benefit the existing population. The in-period benefit is therefore broken down into benefit to existing populations and benefit to growth populations.

The D.C.A., as amended, also requires that no portion of the service intended to benefit anticipated development within the ten-year D.C. period remain as excess capacity at the end of the ten-year D.C. period. For the purposes of this D.C. Study, in-period is identified as the period from 2021 to 2031, and the post-period is identified as the period from 2031 to 2041.

5.1 Propensity to Use Transit by Existing and Growth Populations

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 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 St. Catharines over the next ten years will be primarily infill and denser than existing development. **Table 2** illustrates the percentage of population from both existing and new growth by unit type. As seen, 70% of existing population lives in single detached dwellings, compared to only 18% of the 2021-2031 growth population. This change in built form has an impact on the propensity to use transit by the different portions of the population.

Data was derived from the 2016 Transportation Tomorrow Survey (T.T.S.) to understand how housing choice correlates with the propensity to use transit. The T.T.S. 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 6 illustrates the average 2016 local transit mode share of residents in St. Catharines for trips within St. Catharines during the P.M. peak period by housing type (based on 2016 T.T.S. data). The data was used identify the relative differences in mode share by housing type from T.T.S.

Table 6: P.M. Peak Local Transit Mode Share by Housing Type in St. Catharines for Internal Trips

Housing Type	Transit Mode Share
Low & Medium Density (singles, semis, and multiples)[5]	2.16%
High Density (apartments)	10.49%
All Housing Types	**3.55%[6]**

Source: 2016 T.T.S.

As seen above, residents that live in higher density developments are more likely to use transit then residents that live in low and medium density developments.

The T.T.S. data does not include a transit mode share for population associated with institutional housing. Institutional housing includes group homes, seniors, students, and other specialized high density land uses that typically have high transit use. Therefore, this population was assumed to have the same mode share as apartments (10.49%). "Other" population was assumed to have the average mode share of 3.55%. As shown in **Table 2**, institutional and other population make up a small portion of the existing and growth population, therefore, these assumptions have only a minor impact on benefit to existing and growth calculations.

Table 7 illustrates a weighted average mode share by housing type for both the existing and growth populations. This is calculated by using the transit mode shares by housing

[5] T.T.S. data contains separate categories for low and medium density housing. However, due to a low survey sample size for residents in medium density housing in St. Catharines, the data for low and medium density housing was combined and assumed to have the same transit mode share.

[6] This represents for the mode share for all St. Catharines residents, not filtered by housing type.

type introduced in **Table 6** and the proportion of population in each housing type introduced in **Table 2**.

Table 7: P.M. Peak Period Transit Mode Share by Existing and Growth Populations

Population by Unit Type	Transit Mode Share	Existing Population (% by unit type)	2021-2031 Growth Population (% by unit type)	2031-2041 Growth Population (% by unit type)
Population in Singles and Semis	2.16%	92,188 (66.86%)	2,137 (18.48%)	1,819 (11.85%)
Population in Multiples	2.16%	17,463 (12.66%)	2,857 (24.71%)	2,780 (18.11%)
Population in Apartments	10.49%	24,360 (17.67%)	6,329 (54.73%)	10,368 (67.53%)
Institutional Population	10.49%%	3,390 (2.46%)	240 (2.08%)	387 (2.52%)
Other Population	3.55%	485 (0.35%)	0 (0.00%)	0 (0.00%)
Weighted Average Mode Share	**Not Applicable**	**3.84%**	**6.89%**	**7.99%**
Propensity to Use Transit Factor	**Not Applicable**	**Not Applicable**	**1.79**	**2.08**

The row in **Table 7** entitled "Propensity to Use Transit Factor" identifies the increased propensity of the growth population to use transit compared to the existing population, based on the ratio of the weighted average mode shares.

In summary, the 2021-2031 growth population is expected to take 1.90 times more transit trips per capita than the existing population. Likewise, the 2031-2041 growth population is expected to take 2.20 times more transit trips per capita than the existing population.

5.2 P.M. Peak Frequency Improvements

The benefit to growth and existing of the six P.M. peak period frequency improvements was calculated by comparing the expected increase in boardings by the existing population and the growth population. This calculation has two components:

First, the increase in frequency will cause the existing population to use that route more. To estimate how large that increase will be, the transit industry standard is to apply an elasticity of 30-50%.[7] In other words, a 100% increase in the frequency of a transit route would increase transit ridership during the same period on the route by 30-50%. The ridership response to changes in frequency tends to be lower in places where there is a "captive" transit market that is likely to use transit regardless of service levels. Students and seniors generally fall into this category as they are less likely to own a car and drive due to lower incomes (for students) and disabilities (for seniors). In St. Catharines, 65% of ridership is from students[8]. Many students have access to a U-Pass from Brock University and Niagara College and are frequent users of the transit service. Furthermore, St. Catharines has a high proportion of seniors in their population.[9] Therefore, the ridership elasticity for frequency improvements was assumed to be 30%, on the lower end of the typical range. Since all the P.M. peak period frequency improvements are from every 30 minutes to every 15 minutes (100% increase in buses per hour), the P.M. peak period boardings per capita for each route by the existing population is assumed to increase by 30%.

Second, part of the increase in P.M. peak period boardings is due to growth population using the service. The P.M. peak period boardings per capita for the growth population was calculated by multiplying the P.M. peak period boardings per capita for each route by the existing population (after ridership growth from the frequency improvement is applied) by the factor in **Table 7.**

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[7] Source: T.C.R.P. Report 165: Transit Capacity and Quality of Service Manual, Third Edition (2013), Page 4-37

[8] Source: C.U.T.A. Canadian Conventional Transit Statistics: 2019 Operating Data. Student Passenger Trips: 3,279,524; Total Regular Service Linked Trips: 5,078,779

[9] Source: 2016 Census of Canada. In St. Catharines, 21.7% of the population is aged 65 and over compared to 16.7% in Ontario.

5.2.1 Benefit to Growth and Existing

The proportion of the increase in P.M. peak period boardings from the growth population is the benefit to growth. **Table 8** shows the relevant figures for calculating the benefit to growth. All figures refer to annual P.M. peak period boardings by route.

Table 8: Calculation of Benefit to Growth and Existing for P.M. Peak Period Frequency Improvements

Transit Boardings	301	302	303	308	309	312
2019 Boardings[10]	45,367	47,526	36,299	24,763	46,528	56,528
2019 Boardings per Capita	0.333637	0.349515	0.266950	0.182112	0.342176	0.415717
2021 Boardings[11]	46,004	48,193	36,809	25,111	47,181	57,322
Boardings per Capita in 2031 by Existing Population	0.433728	0.454370	0.347035	0.236746	0.444829	0.540432
Boardings per Capita in 2031 by 2021-2031 Growth Population	0.776373	0.813322	0.621193	0.423775	0.796244	0.967373
2031 Boardings by Existing Population	59,219	62,037	47,382	32,324	60,735	73,788
Increase in Boardings by Existing Population	13,215	13,844	10,573	7,213	13,554	16,466
Increase in Boardings by Growth Population	8,977	9,404	7,183	4,900	9,207	11,186
Total Increase in Boardings	22,192	23,248	17,756	12,113	22,761	27,652
In-period Benefit to Existing	**59.55%**	**59.55%**	**59.55%**	**59.55%**	**59.55%**	**59.55%**
In-period Benefit to Growth	**40.45%**	**40.45%**	**40.45%**	**40.45%**	**40.45%**	**40.45%**

[10] Data provided by St. Catharines Transit
[11] Assumes that the COVID-19 pandemic did not occur. See **Section 1.1**.

Example Calculation (Route 301)

An example describing each calculation is illustrated below for Route 301.

Formula:

2019 Annual P.M. Peak Period Boardings per Capita = 2019 Annual P.M. Peak Period Boardings for Route 301 (**Table 8**) / 2019 Population (**Table 3**)

Calculation:

0.333637 = 45,367 / 135,977

Formula:

2021 Annual P.M. Peak Period Boardings = 2019 Annual P.M. Peak Period Boardings per Capita for Route 301 * 2021 Population (Table 3)

Calculation:

46,004 = 0.333637 * 137,886

Formula:

Annual P.M. Peak Period Boardings per Capita in 2031 from Existing Population Only = 2019 Annual P.M. Peak Period Boardings per Capita * (1 + Frequency Elasticity of Demand * Increase in Transit Frequency)

Calculation:

0.433728 = 0.333637 * (1 + 0.3 * 100%)

Formula:

Annual P.M. Peak Period Boardings per Capita by Growth 2021-2031 Growth Population = Annual P.M. Peak Period Boardings per Capita in 2031 from Existing Population Only * Propensity to Use Transit Factor (**Table 7**)

Calculation:

0.776373 = 0.433728 * 1.79

Formula:

Annual P.M. Peak Period Boardings in 2031 by Existing Population = Annual P.M. Peak Period Boardings per Capita in 2031 by Existing Population * Adjusted 2031 Population in Existing Housing Stock[12] (**Table 3**)

Calculation:

59,219 = 0.433728 * 136,535

Formula:

Increase in Annual P.M. Peak Period Boardings by Existing Population = Existing Population Boardings in 2031 – 2021 Boardings

Calculation:

13,215 = 59,219 - 46,004

Formula:

Increase in Boardings by Growth Population = Annual P.M. Peak Period Boardings per Capita by 2021-2031 Growth Population * 2021-2031 Growth Population (**Table 2**)

[12] The adjusted population is defined as the population in the existing 2021 housing stock, adjusted to reflect a slight population decline (e.g. due to changing household demographics). See **Table 3**.

Calculation:

8,977 = 0.776373 * 11,563

Formula:

Total Increase in Annual P.M. Peak Period Boardings = Increase in Annual P.M. Peak Period Boardings by Existing Population + Increase in Annual P.M. Peak Period Boardings by Growth Population

Calculation:

22,192 = 13,215 + 8,977

Formula:

Benefit to Existing = Increase in Annual P.M. Peak Period Boardings by Existing Population / Total Increase in Annual P.M. Peak Period Boardings

Calculation:

59.55% = 13,215 / 22,192

Formula:

Benefit to Growth = Increase in Annual P.M. Peak Period Boardings by Growth Population / Total Increase in Annual P.M. Peak Period Boardings

Calculation:

40.45% = 8,977 / 22,192

In summary, the six 40-foot buses associated with the P.M. peak period frequency increases are apportioned as follows:

- 59.55% Benefit to Existing
- 40.45% Benefit to Growth

5.2.2 Post-Period Benefit to Growth

The benefit is growth is further broken down into in-period and post-period benefit to growth. The percentage of the benefit to growth apportioned to the post-period is calculated by estimating the proportion of 2041 ridership that will be from the 2031-

2041 growth population. This proportion is the excess capacity on each relevant route that exists at the end of the D.C. period.

Table 9 shows the relevant figures for calculating the in-period and post-period benefit to growth. All figures refer to annual P.M. peak period boardings. See below the table for an example describing each calculation in detail.

Table 9: Calculation of Benefit to In-Period and Post-Period Growth for P.M. Peak Period Frequency Improvements

Boardings	301	302	303	308	309	312
Boardings per Capita in 2041 by Existing Population[13]	0.433728	0.454370	0.347035	0.236746	0.444829	0.540432
Boardings per Capita in 2041 by 2021-2031 Growth Population[14]	0.776373	0.813322	0.621193	0.423775	0.796244	0.967373
Boardings per Capita in 2041 by 2031-2041 Growth Population	0.902154	0.945090	0.721833	0.492432	0.925244	1.124099
Boardings in 2041 by Existing Population	59,398	62,225	47,525	32,422	60,918	74,011
Boardings in 2041 by 2021-2031 Growth Population[15]	8,977	9,404	7,183	4,900	9,207	11,186

[13] Unchanged from 2031, see **Table 8**.
[14] Unchanged from 2031, see **Table 8.**
[15] Unchanged from 2031, see **Table 8.**

Boardings	301	302	303	308	309	312
Boardings in 2041 by 2031-2041 Growth Population	13,852	14,511	11,083	7,561	14,206	17,259
Total 2041 Boardings	82,227	86,140	65,791	44,883	84,331	102,456
Percentage of 2041 Ridership by 2031-2041 Growth Population	16.85%	16.85%	16.85%	16.85%	16.85%	16.85%
Total Benefit to Growth	40.45%	40.45%	40.45%	40.45%	40.45%	40.45%
In-Period Benefit to Growth	33.63%	33.63%	33.63%	33.63%	33.63%	33.63%
Post-Period Benefit to Growth	6.82%	6.82%	6.82%	6.82%	6.82%	6.82%

Example Calculation (Route 301)

Calculations already completed in Section 5.2.1 are not included (see footnotes in Table 9).

Formula:

Annual P.M. Peak Period Boardings per Capita from 2031-2041 Growth Population = Existing Population Annual P.M. Peak Period Boardings per Capita in 2041 * Propensity to Use Transit Factor (**Table 7**)

Calculation:

0.902154 = 0.433728 * 2.08

Formula:

Annual P.M. Peak Period Boardings in 2041 from Existing Population = Annual P.M. Peak Period Boardings per Capita in 2041 from Existing Population * Adjusted 2041 Population in Existing Housing Stock[16] (**Table 3**)

Calculation:

59,398 = 0.433728 * 136,947

Formula:

Increase in Annual P.M. Peak Period Boardings by Growth Population = Annual P.M. Peak Period Boardings per Capita by 2031-2041 Growth Population * 2031-2041 Growth Population (**Table 2**)

Calculation:

13,852 = 0.902154 * 15,354

Formula:

Total 2041 Annual P.M. Peak Period Boardings = Annual P.M. Peak Period Boardings in 2041 by Existing Population + Annual P.M. Peak Period Boardings in 2041 by 2021-2031 Growth Population + Annual P.M. Peak Period Boardings in 2041 by 2031-2041 Growth Population

Calculation:

82,227 = 59,398 + 8,977 + 13,852

Formula:

Percentage of 2041 Annual P.M. Peak Period Ridership by 2031-2041 Growth Population = Annual P.M. Peak Period Boardings in 2041 by 2021-2031 Growth Population / Total 2041 Annual P.M. Peak Period Boardings

[16] The adjusted population is defined as the population in the existing 2021 housing stock, adjusted to reflect changing household demographics). See **Table 3.**

Calculation:

16.85% = 13,852 / 82,227

Formula:

In-Period Benefit to Growth = (1- Percentage of 2041 Annual P.M. Peak Period Ridership by 2031-2041 Growth Population) * Total Benefit to Growth

Calculation:

33.63% = (1 – 16.85%) * 40.45%

Formula:

Post-Period Benefit to Growth = Percentage of 2041 Annual P.M. Peak Period Ridership by 2031-2041 Growth Population * Total Benefit to Growth

Calculation:

6.82% = 16.85% * 40.45%

In summary, the six 40-foot buses associated with P.M. peak period frequency increases are apportioned as follows:

- 59.55% In-Period Benefit to Existing
- 33.63% In-Period Benefit to Growth
- 6.82% Post-Period Benefit to Growth

5.3 Route 314 / 414 Downtown Connection

The benefit to growth and existing of the Downtown connection being added to Route 314 was calculated by comparing the expected increase in boardings by the existing population and the growth population using a similar to the methodology described in **Section 5.2**.

Route 314 operates in a one-way loop primarily serving Carlton Street, Scott Street and Fairview Mall. Within the D.C. period, this route will be modified with a two-way connection to Downtown via Lake Street.

This improvement is only impactful to passengers that are travelling to or from Downtown and no longer need to transfer. St. Catharines Transit staff estimated that less than 10% of passengers on this route are going downtown. Therefore, the increase in boardings from the existing population is not expected to be significant. However, in order to be conservative, the calculations in this section assume that the change will impact 20% of the passengers on this route, increasing the benefit to existing.

5.3.1 Benefit to Growth (In-Period and Post-Period) and Existing

The proportion of the increase in boardings from the growth population is the benefit to growth.

In 2019, there were 13,454 annual P.M. peak period boardings on Route 314 (data provided by St. Catharines Transit). As stated previously, 20% of the boardings (2,691) were assumed to be going Downtown, while 80% (10,763) would not be impacted by the route change. This equates to 0.019790 Downtown-bound boardings per capita[17] and 0.079153 other boardings per capita on this route[18].

To account for the increase in boardings per capita due to elimination of a transfer, a travel time elasticity with a "transfer penalty" of 15 minutes was applied. Conceptually, this means that a transfer adds a 15 minute real and perceived delay in travel time, which is reduced by eliminating the transfer. Typically, the transfer penalty can be calculated by adding 12-17 minutes of in-vehicle time to the total travel time or multiplying the time spent transferring by 2.5.[19] In this case, the former method was used in order to be conservative, increasing the benefit to existing.

A full loop on Route 314 takes 24 minutes.[20] Therefore, an average travel time of 12 minutes (half the route) was assumed. A passenger destined for Downtown would transfer at Lake Street and Scott Street and travel for 6 minutes on Route 306. With an assumed transfer time of 5 minutes, the total average travel time is 23 minutes. After adding a transfer penalty of 15 minutes, the base travel time with penalty is 38 minutes.

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[17] 2,691 / 135,977 (**Table 3**)
[18] 10,763 / 135, 977 (**Table 3**)
[19] Source: T.C.R.P. Report 165: Transit Capacity and Quality of Service Manual, Third Edition (2013), Page 4-11
[20] Source: https://yourbus.com/routes/r314/

In the future, with no transfer necessary, such a trip will take only 18 minutes.

A ridership elasticity for changes in travel time of -30% to -50% is typical.[21] In this case, -30% was used due to the amount of students and seniors in St. Catharines. This point is elaborated on in **Section 5.2.1**.

Formula: 2031 and 2041 Boardings per Capita for Existing Population

2031 and 2041 Annual P.M. Peak Period Boardings per Capita for Existing Population = 2019 Non-Downtown-Bound Annual P.M. Peak Period Boardings per Capita + 2019 Downtown Bound Annual P.M. Peak Period Boardings per Capita * (1 + (Future Travel Time - Existing Travel Time) / Existing Travel Time * Travel Time Elasticity)

Calculation:

0.102068 = 0.079153 + 0.019790 * (1 + (18 - 38) / 38 * -30%)

From this point, an identical methodology to **Section 5.2** was used. The key values from the calculations is presented in **Table 10**. All figures refer to annual P.M. peak period boardings. For details on the methodology and an example of the precise calculations, see **Section 5.2.**

[21] Source: T.C.R.P. Report 165: Transit Capacity and Quality of Service Manual, Third Edition (2013), Page 4-38

Table 10: Calculation of Benefit to Growth (In-Period and Post-Period) and Existing for Route 314 / 414 Downtown Connection

Category	Value
2021 Boardings	13,643
Boardings per Capita in 2031 by Existing Population	0.102068
Boardings per Capita by 2021-2031 Growth Population	0.182702
Boardings in 2031 by Existing Population	13,936
Increase in Boardings by Existing Population	293
Increase in Boardings by Growth Population	2,113
Total Increase in Boardings	2,406
Benefit to Existing	12.18%
Benefit to Growth	87.82%
Boardings per Capita in 2041 by Existing Population	0.102068
Boardings per Capita in 2041 by 2021-2031 Growth Population	0.182702
Boardings per Capita in 2041 by 2031-2041 Growth Population	0.212301
Boardings in 2041 by Existing Population	13,978
Boardings in 2041 by 2021-2031 Growth Population	2,113
Boardings in 2041 by 2031-2041 Growth Population	3,260
Total 2041 Boardings	19,351
Percentage of 2041 Ridership by 2031-2041 Growth Population	16.85%
In-Period Benefit to Growth	73.02%
Post-Period Benefit to Growth	14.80%

In summary, the 40-foot bus associated with the Route 314 / 414 Downtown Connection is apportioned as follows:

- 12.18% In-Period Benefit to Existing
- 73.02% In-Period Benefit to Growth
- 14.80% Post-Period Benefit to Growth

5.4 GO-VIA Station Shuttle

The shuttle service connecting the GO-VIA train station to Downtown will be expanded over the 10-year D.C. Period. It currently operates sporadically as needed, but will be expanded to a more regular service, requiring the addition of a new cutaway vehicle.

The existing ridership on the shuttle was not available to discount the benefit to existing, but was reported to be minimal. Not including the existing ridership on this route is a conservative approach that will reduce the benefit to growth of this expanded service.

As the shuttle is designed to provide a connection between the downtown terminal in St. Catharines (a major transit hub) to the GO-VIA train station (a hub for travel outside of St. Catharines), it will be used by residents from all over St. Catharines, by both the existing and growth population. Therefore, the methodology used to calculate the benefit to the existing and growth population on this route is based on a ridership per capita basis, adjusted for propensity to use transit (see **Section 5.1)**.

The values in **Table 11** are used to calculate the benefit to existing, in-period benefit to growth, and post-period benefit to growth.

Table 11: Population Weighted by Propensity to Use Transit

Population Category	Population	Propensity to Use Transit Weight	Weighted Population
Existing	136,535	1.00	136,535
2021-2031 Growth	11,563	1.79	20,698
2031-2041 Growth	15,354	2.08	31,936
Total	Not Applicable	Not Applicable	189,169

The formulas below provide a detailed calculation of how the benefit to existing and in-period and post-period benefit to growth for this route was calculated.

Formula: Benefit to Existing

Benefit to Existing = Weighted Existing Population from **Table 11** / (Weighted Existing Population from **Table 11** + Weighted 2021-2031 Growth Population from **Table 11**)

Calculation:

86.84% = 136,535 / (136,535 + 20,698)

Formula: In-Period Benefit to Growth

In-Period Benefit to Growth = Weighted 2021-2031 Growth Population from **Table 11** / (Weighted Existing Population from **Table 11** + Weighted 2021-2031 Growth Population

from **Table 11**) * (1 – (Weighted 2031-2041 Growth Population from **Table 11** / Total Weighted Population from **Table 11**)

Calculation:

10.94% = 20,698 / (136,535 + 20,698) * (1 - (31,936 / 189,169))

Formula: Post-Period Benefit to Growth

Benefit to Existing = Weighted 2021-2031 Growth Population from **Table 11** / (Weighted Existing Population from **Table 11** + Weighted 2021-2031 Growth Population from **Table 11**) * (Weighted 2031-2041 Growth Population from **Table 11** / Total Weighted Population from **Table 11**).

Calculation:

2.44% = 20,698 / (136,535 + 20,698) * (31,936 / 189,169)

In summary, the cutaway bus associated with the GO-VIA Station Shuttle is apportioned as follows:

- 86.84% In-Period Benefit to Existing
- 10.94% In-Period Benefit to Growth
- 2.22% Post-Period Benefit to Growth

5.5 Spare Vehicles

A total of seven 40-foot peak buses are being added as part of the ten-year capital plan, increasing the peak 40-foot bus fleet from 52 to 59. In order to maintain the existing spare ratio, two spare 40-foot buses will need to be added to the fleet. This is summarized in **Table 12**.

Table 12: 2021 and 2031 Spare Ratio

Vehicle	2021 Fleet	2031 Fleet
40-Foot Peak Bus	52	59
40-Foot Spare Bus	15	17
Spare Ratio	**29%**	**29%**

The benefit to growth (in-period and post-period) and existing was calculated by averaging the benefit splits of the peak 40-foot vehicles that are being added to the fleet. This calculation does not include the GO-VIA Station Shuttle as it will use the 24-foot cutaway bus instead of a 40-foot bus. This is summarized in **Table 13**.

Table 13: Calculation of Benefit Splits for 40-Foot Spare Buses

Service Improvement	Benefit to Existing	In-Period Benefit to Growth	Post-Period Benefit to Growth
P.M. Peak Period Frequency Improvements (6 buses)	59.55%	33.63%	6.82%
Route 314 Downtown Connection (1 bus)	12.18%	73.02%	14.80%
Weighted Average	**52.78%**	**39.26%**	**7.96%**

In summary, the two 40-foot spare buses are apportioned as follows:

- 52.78% In-Period Benefit to Existing
- 39.26% In-Period Benefit to Growth
- 7.96% Post-Period Benefit to Growth

6.0 Paratransit

6.1 Ridership Forecast

Ridership growth on paratransit will grow as a result of two main reasons:

- Population growth in the community; and
- Aging population.

Population growth will see an increase in the number of paratransit registrants that will request trips on the service. This will increase the vehicle requirements over the ten-year D.C. period.

An aging population (from both the existing and growth population) will also see an increase in the number of specialized transit registrants. Watson & Associates provided population by age forecast for the D.C. period.

The aging population is shown in **Table 14** below and illustrates that the existing City of St. Catharines population is aging. Statistics Canada notes that approximately 22% of the Canadian population has a disability. The prevalence of disability rises as we age, from 13.10% of the population in the 15 to 24 year cohort to 47.40% of the population in the 75+ year cohort. With an aging population, there will be a growth in the number of paratransit registrants from the existing population over the 10-year D.C. period.

Table 14: Population by Age Cohort[22]

Age Group	2019	2021	2031
0-19	26,640	26,600	27,100
20-34	28,460	28,900	27,500
35-44	15,320	15,400	17,500
45-54	17,360	16,400	16,000
55-64	19,940	20,500	17,500
65-74	16,800	17,800	21,800
75+	14,920	15,800	24,400
Total	**139,440**	**141,400**	**151,800**
New Growth Population	**Not Applicable**	**Base Year**	**10,400**

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 2021 and 2031. This provided the potential number of persons with disabilities each year (as illustrated in **Table 15** below).

[22] 2021 to 2031 forecast data from CANCEA dataset prepared for Niagara Region, summarized by Watson & Associates Economists Ltd., 2020. Note: Population includes net Census undercount.

Table 15: Potential Persons with Disabilities by Age Group

Age Group	Prevalence of Disability[23]	2019	2021	2031
0-19	13.10%	3,490	3,485	3,550
20-34	14.60%[24]	4,155	4,219	4,015
35-44	15.30%	2,344	2,356	2,678
45-54	24.30%	4,218	3,985	3,888
55-64	24.30%	4,845	4,982	4,253
65-74	32.00%	5,376	5,696	6,976
75+	47.40%	7,072	7,489	11,566
Total Persons with Disabilities	**Varies by Horizon Year**	**31,501**	**32,212**	**36,925**

It should be noted that not all persons with disabilities would be eligible for Paratransit. 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 (2019) paratransit registrants to potential persons with disabilities in 2019 was calculated and applied to each corresponding year to forecast the future number of paratransit registrants[25]. The formula to calculate this is noted below using the 2031 horizon year as an example:

Formula: 2031 Paratransit Registrants

2031 Paratransit Registrants = 2019 Paratransit Registrants / 2019 Potential Persons with Disabilities = Paratransit Registrant Trip Rate per Potential Person with a Disability * 2031 Potential Persons with Disabilities

[23] Source: Canadian population aged 15 years and over, by age group and disability status, 2017 (Statistics Canada - https://www150.statcan.gc.ca/n1/pub/89-654-x/89-654-x2018002-eng.htm)

[24] Note that percentage represents a weighted average of the 15-24 age category and the 25 to 34 age category, adjusted based on the population breakdown provided

[25] Note that 2019 was used as the base year as it was the last year of ridership prior to the COVID-19 pandemic. See **Section 1.2** for explanation of base-year ridership.

Calculation

1,588 = 1,355 / 31,501 = 0.043 * 36,925

The forecasted number of paratransit registrants during the ten-year D.C. period is illustrated in **Table 16** below. To calculate ridership, the number of trips made by each registrant was also calculated.

In 2019, paratransit used both publically-owned purpose-built bus fleet and a third-party sedan service to provide trips for registered passengers. This was split between approximately 78% of trips provided on publically-owned vehicles and the remaining using third-party sedan service.

St. Catharines Transit recently contracted RideCo to provide an on-demand technology solution for their paratransit system, lessening the need for non-dedicated vehicles (taxis) to offer paratransit service. In 2021, St. Catharines Transit will begin to transition 100% of its service to be provided by dedicated municipal-owned buses, with 100% provided by 2031.

In 2019, 28.05 trips were made annually per registrant on Specialized Transit. This includes a 4.6% trip denial rate. The trip denial rate was anticipated to stay the same during the 10-year D.C. period.

Since 2020 saw less trips made per registrant due to the COVID-19 pandemic, the 2019 trip rate was used to identify the number of trips each passenger would make.

The number of trips per registrant was applied to the growth in the number of registrants to calculate the future ridership on paratransit services. This is also illustrated in **Table 16** below.

Table 16: Registrant and Ridership Forecast for Paratransit

Registrants and Trips	2019	2021	2031
Registrants	1,355	1,385	1,588
Trip Denial Rate	4.64%	4.64%	4.64%
Total Trips	38,007	38,849	44,543
Trips by Muncipal-owned Vehicles	29,615	30,271	44,543
Trips by Third-Party Provider	8,392	8,578	0
Trips Per Registrant	28.05	28.05	28.05

6.2 New Paratransit Vehicles

The forecasted growth in trips above will require the addition of several new cutaway buses for paratransit service. The capital need was calculated on a trips per peak bus basis. The 2031 peak vehicle requirement was calculated as follows:

Formula:

2031 Peak Paratransit Vehicles = 2031 Paratransit Trips on Dedicated Vehicles / (2019 Paratransit Trips on Dedicated Vehicles / 2019 Peak Paratransit Fleet)

Calculation:

12[26] = 44,543 / (29,615 / 8)

Assumptions used to calculate paratransit fleet requirements and cost are noted below:

- Capital costs are solely attributed to the publicly-owned fleet of purpose-built vehicles;
- The capital cost per vehicle is $250,000 (2021$);
- The 50% spare ratio observed in 2019 will be maintained; and
- Each peak period vehicle makes approximately 3,702 trips annually.

Table 17 outlines the publicly-owned transit vehicle requirements to 2031. By the end of the ten-year D.C. period (2031), St. Catharines Transit will need five (5) new vehicles to

[26] Rounded to the closest whole number.

accommodate growing registrants attributed to population growth and an aging population. This includes one new spare to maintain a spare ratio of 50%.

Table 17: Paratransit Vehicle Requirements (2031)

Fleet	2021	2031
Peak Fleet	8	12
Spare Fleet	5	6
Total Fleet (including Spares)	**13**	**18**
Additional Vehicles Required (cumulative)	**Base Year**	**5**

Based on the unit cost of $250,000 (2021$) for each vehicle, the total capital requirement for paratransit by 2031 is $1,250,000.

To summarize, St. Catharines will need to make the following changes to their paratransit fleet during the 10-year D.C. period:

- An increase from 8 to 12 peak cutaways (4 vehicles)
- An increase from 5 to 6 spare cutaways (1 vehicle)

6.3 Apportioning Benefit

The method used to apportion growth relating to specialized transit vehicles is different than conventional transit as benefits are allocated on a registrant basis instead of a per trip basis. Similarly, there are benefits to the existing and growth populations. Thus, benefits are allocated to two groups of customers:

1. New registrants based on the existing population (attributed to an aging population that will register for the service and existing registrants that use the service more); and
2. New registrants based on growth in population.

To calculate the apportionment of benefit, growth in trips was separated into:

1. Growth of registrants (as a result of an aging population and population growth); and

2. Growth of trips per registrant (as a result of increased trips per registrant).

Growth in Registrants

To determine the number of new registrants that come from the existing population and those that are from the new 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 15** for each age cohort in 2031 was multiplied by the ratio of existing 2021 population to the total 2031 population (including growth). This provided the growth in the existing population with a disability in 2031. The net growth between 2021 and 2031 was the number of new existing residents that could potentially have a disability over the 10-year D.C. period and be eligible for paratransit.

The growth population with a disability was calculated by multiplying the total 2031 population with a disability in each age cohort by the ratio of growth population (2021 to 2031) to the 2031 total population.

Table 18 illustrates the allocation of paratransit registrants to an aging population (benefit to existing) and a growing population (benefit to growth). Between 2021 and 2031, an additional 5,694 new paratransit trips were forecasted, of which 2,637 are from the existing population aging and 3,057 are from the growth population.

Table 18: Allocation of Paratransit Registrants to Growth and Non-Growth

Breakdown of Population	2019	2021	2031
Population	135,977	137,886	148,099
% Existing Population	100.00%	100.00%	93.15%
% Growth Population	0.00%	0.00%	6.85%
Population with a disability	31,501	32,212	36,925
Increase from Existing Population Aging	Not Applicable	Base Year	2,183
Increase from Growth Population	Not Applicable	Base Year	2,530
Total Change in existing population with a disability due to aging	Not Applicable	Base Year	4,713
% of new registrants from existing aging population	Not Applicable	Base Year	46.32%
% of new registrants from population growth	Not Applicable	Base Year	53.68%

To calculate the apportionment to growth and existing population, the following formula was used:

Formula:

Trips attributed to new registrants by 2031 (using 2021 trip rate) = (Total Registrants in 2031 - Total Registrants in 2021) * 2021 Paratransit Registrant Trip Rate

Calculation:

5,694 = (1,588 - 1,385) * 28.05

Therefore, the allocation of benefits to existing registrants and growth registrants can be summarized by the following formulas:

Formula:

Benefit to Existing = (Trips attributed to new registrants by 2031 using 2021 trip rate * Percentage growth of 2021 population with a disability) (see **Table 18**) / Increase in Rides by 2031

Calculation:

46.32% = 5,694 * 46.32% / 5,694

Formula:

Benefit to Growth = (Trips attributed to new registrants by 2031 using 2021 trip rate * Percentage increase of growth population with a disability) (see **Table 18**) = Increase in Rides by 2031.

Calculation:

53.68% = 5,694 * 53.68% / 5,694

Unlike conventional transit, there are is no post-period benefit for the purchase of the paratransit fleet during the in-period. Since paratransit will continue to deny approximately 4.6% of trip requests within the ten-year D.C. period, any increase in registrants and trips beyond 2031 will require additional capacity (since 4.6% of trips requested from the 2031 population are anticipated to be denied).

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

In summary, paratransit vehicles are apportioned as follows:

- 46.32% In-Period Benefit to Existing
- 53.68% In-Period Benefit to Growth
- 0.00% Post-Period Benefit to Growth

7.0 Other Capital Expenses

7.1 Supervisor Vehicles

7.1.1 Vehicle Growth

Supervisor vehicles are used to provide on-road supervision of bus drivers. St. Catharines Transit currently has two (2) supervisor vehicles in operation. Since the number of supervisor vehicles required is a direct correlation to the number of peak buses in service, there is a need to add supervisor vehicles to account for the growth in peak buses.

One additional supervisor vehicle is required to support the future peak bus requirements (conventional and paratransit).

7.1.2 Apportionment

The method used to apportion in-period and post-period benefits related to supervisor vehicles is different from that used for the conventional transit vehicles (buses). Additional supervisor vehicle needs are tied to growth in the number of peak conventional and paratransit buses and therefore are responsive to the number of buses in the fleet). New supervisor vehicle therefore have no excess capacity that will benefit future riders.

In summary, the additional supervisor vehicle is apportioned as follows:

- 0.00% Benefit to Existing
- 100.00% In-Period Benefit to Growth
- 0.00% Post-Period Benefit to Growth

7.2 Facility Expansion

St. Catharines Transit currently operates a fleet of 86 buses, including 67 40-foot buses, six (6) 60-foot articulated buses and 13 24-foot cutaway buses for paratransit. An additional eight 40-foot buses are owned by the Region of Niagara and operated by St. Catharines Transit under contract to the Region.

The existing facility can hold 66 40-foot buses and does not accommodate existing bus fleet. As a result, the eight Niagara Region Transit buses and approximately 14 St. Catharines Transit buses are stored outside.

St. Catharines Transit will be constructing and opening a new operations facility within the 10-year D.C. period with a capacity of 96 40-foot equivalent buses. This will increase the existing indoor storage capacity by 30 40-foot equivalent buses and allow the City to move some of the existing buses stored outdoors inside the facility as well as accommodate future fleet growth.

To calculate the benefit to existing and growth of this new facility, the facility size and fleet requirements are calculated as 40-foot equivalent buses given the changing composition and fleet size. This is based on the following ratios by bus type:

- 40-foot Bus = 1.0 40-foot bus equivalent;
- 60-foot Articulated = 1.5 40-foot bus equivalent; and
- 24-foot Cutaway Bus = 0.6 40-foot bus equivalent.

Table 19 shows the existing fleet and growth in fleet in 40-foot equivalents, as well as the benefit to existing and in-period benefit to growth calculated in the previous sections of this document.

Table 19: Existing St. Catharine's Transit Fleet and Growth in Fleet in 40-Foot Equivalents[27]

Vehicle Type	Existing Fleet	Existing Fleet 40-Foot Equivalent	2021-2031 Fleet Expansion	2021-2031 Fleet Expansion 40-Foot Equivalent	Benefit to Existing (for Expansion Vehicles)	In-Period Benefit to Growth (for Expansion Vehicles)
40-Foot Peak	52	52	7	7	52.78%	39.26%
40-Foot Spare	15	15	2	2	52.78%	39.26%
60-foot Peak	4	6	0	0	No Growth Units	No Growth Units
60-Foot Spare	2	3	0	0	No Growth Units	No Growth Units
Peak Cutaways (Conventional)	0	0	1	0.6	86.84%	11.43%
Peak Cutaways (Paratransit)	8	4.8	4	2.4	46.32%	53.68%
Spare Cutaways (Paratransit)	5	3	1	0.6	46.32%	53.68%
Total	**86.0**	**83.8**	**15.0**	**12.6**	Not Applicable	Not Applicable

[27] Note that this does not include any vehicles owned by Niagara Region.

Assuming that Niagara Region Transit buses will continue to be stored outdoors, the existing facility is overcapacity by 17.8 40-foot equivalents.[28] Moving all these buses indoors into the expanded facility would be a 100% benefit to existing.

The remaining spare capacity in the facility once all existing St. Catharines Transit buses are moved indoors is 12.2 40-foot bus equivalents.

The benefit to existing of the expanded facility is based on the portion of the expanded facility capacity that will accommodate the existing St. Catharines Transit fleet currently stored outdoors, and the 'benefit to existing' portion of the 2021-2031 expansion vehicles.

Formula:

Note: All figures in this formula are expressed in 40-foot equivalents and are sourced from **Table 19** above.

Portion of 30 Vehicle Capacity Expansion that is Benefit to Existing = (Current St. Catharines Fleet - Current Capacity) + 40-Foot Expansion Vehicles * Relevant Benefit to Existing + Conventional Cutaway Expansion Vehicle * Relevant Benefit to Existing + Paratransit Cutaway Expansion Vehicles * Relevant Benefit to Existing

Calculation:

24.460840 = (83.8 - 66) + 9 * 52.78% + 0.6 * 86.84% + 3 * 46.32%

Next, the in-period benefit to growth was calculated as follows:

Formula:

Note: All figures in this formula are expressed in 40-foot equivalents and are sourced from **Table 19** above.

Portion of 30 Vehicle Capacity Expansion that is In-Period Benefit to Growth = 40-Foot Expansion Vehicles * Relevant In-Period Benefit to Growth + Conventional Cutaway

[28] 83.8 40-foot equivalents in the existing fleet minus the 66 40-foot equivalent capacity

Expansion Vehicles * Relevant In-Period Benefit to Growth + Paratransit Cutaway Expansion Vehicles * Relevant In-Period Benefit to Growth

Calculation:

5.209440 = 9 * 39.26% + 0.6 * 10.94% + 3 * 53.68%

Finally, the remaining excess capacity in the new facility at the end of the D.C. period is a post-period benefit to growth.

Formula:

All figures in this formula are in 40-foot equivalents.

Portion of 30 Vehicle Capacity Expansion that is Post-Period Benefit to Growth = New Facility Marginal Capacity - Portion of 30 Vehicle Capacity Expansion that is Benefit to Existing - Portion of 30 Vehicle Capacity Expansion that is In-Period Benefit to Growth

Calculation:

0.329720 = 30 - 24.460840 – 5.209440

The ratio of these calculations was used as the benefit to existing, in-period growth, and post-period growth as shown in **Table 20**.

Table 20: Calculation of Benefit Splits for New Facility

Unit	Benefit to Existing	In-Period Benefit to Growth	Post-Period Benefit to Growth
40-Foot Equivalents	24.460840	5.209440	0.329720
Percentage	81.54%	17.36%	1.10%

In summary, the new facility is apportioned as follows:

- 81.54% In-Period Benefit to Existing
- 17.36%% In-Period Benefit to Growth
- 1.10% Post-Period Benefit to Growth

8.0 Summary of Key Values

The capital plan, costing, and benefit splits for all of the D.C. eligible capital items related to transit are summarized in **Table 21**. Note that the costing represents the full cost per unit, and does not account for funding that may have been secured through other sources.

Table 21: Summary of Key Values

Item	Number of Units	Cost Per Unit	Total Cost	Benefit to Existing	In-Period Benefit to Growth	Post-Period Benefit to Growth
40-foot Buses (Peak)[29]	7	$800,000	$5,600,000	52.78%	39.26%	7.96%
40-foot Buses (Spares)	2	$800,000	$1,600,000	52.78%	39.26%	7.96%
Cutaways (Conventional)	1	$250,000	$250,000	86.84%	10.94%	2.22%
Cutaways (Paratransit)	5	$250,000	$1,250,000	46.32%	53.68%	0.00%
Supervisor Vehicles	1	$45,000	$45,000	0.00%	100.00%	0.00%
Facility	1	$9,890,000[30]	$9,890,000	81.54%	17.36%	1.10%

[29] This represents the average benefit splits for 40-foot peak buses calculated in the same way as 40-foot spare buses.
[30] This represents the full facility cost. Grant funding is applied to 73.33% of this facility.

Appendix H
Proposed Development Charges By-law

The Corporation of the City of St. Catharines
By-Law No. 2021-xxx

A By-law to establish Development Charges for the City of St. Catharines

Whereas the *Development Charges Act, 1997* (the "Act") 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;

And whereas a Development Charges Background Study has been completed in accordance with the Act;

And whereas Council has before it a report entitled "City of St. Catharines Development Charge Background Study" prepared by Watson & Associates Economists Ltd. dated June 2, 2021;

And whereas the Council of the Corporation of the City of St. Catharines has given notice of and held a public meeting on the 14th day of June, 2021 in accordance with the Act and the regulations thereto;

Now therefore the Council of the Corporation of the City of St. Catharines hereby enacts as follows:

1.0 Definitions

In this by-law, "Act" means the Development Charges Act, 1997, as amended, or any successor thereto;

"Accessory use" means where used to describe a use, building or structure, that the use, building, or structure is naturally and normally incidental, subordinate in purpose of floor area or both, and exclusively devoted to a principal use, building or structure, but is not an ancillary residential building;

“Agricultural Use” means use or intended use for bona fide farming purpose:

(a) including (but not limited to):

i. cultivation of crops, whether on open land or in greenhouses, including (but not limited to) fruit, vegetables, herbs, grains, field crops, marijuana, sod, trees, shrubs, flowers, and ornamental plants;

ii. (ii) raising of animals, including (but not limited to) cattle, horses, pigs, poultry, livestock, fish; and

iii. (iii) agricultural animal husbandry, dairying, equestrian activities, horticulture, fallowing, pasturing, and market gardening;

(b) but excluding:

i. retail sales activities; including but not limited to restaurants, banquet facilities, hospitality facilities and gift shops;

ii. services related to grooming, boarding, or breeding of household pets; and

iii. (iii) marijuana processing or production facilities.

“ancillary residential building” means a residential building that would be ancillary to a detached dwelling, semi-detached dwelling, or row dwelling.

“apartment unit” means any residential dwelling unit within a building containing three or more dwelling units where access to each residential unit is obtained through a common entrance or entrances from the street level and the residential units are connected by an interior corridor and includes stacked townhouse dwellings;

“back-to-back townhouse dwelling” means a building containing more than two dwelling units separated vertically by a common wall, including a rear common wall, that do not have rear yards;

“bedroom” means a habitable room larger than seven square metres, including a den, study, or other similar area, but does not include a living room, dining room or kitchen;

“Board of Education” has the same meaning as that specified in the Education Act or any successor thereto;

“brownfield” means land located within the urban areas as defined from time to time in the Regional Official Plan, upon which there has been previous agricultural, industrial, institutional, or commercial or open lands use or other use as prescribed under the Environmental Protection Act, R.S.O. 1990, c.E.19 and Ontario Regulation 153/04 thereto, each as amended from time to time, and for which site remediation is required in accordance with a Phase 2 Environmental Site Assessment, and for which a Record of Site Condition has been filed on the Province’s Brownfields Environmental Site Registry pursuant to the Environmental Protection Act, R.S.O. 1990, c.E.19 and Ontario Regulation 153/04 thereto, each as amended from time to time;

"building permit" means a permit pursuant to the *Building Code Act, 1992*, S.O. 1992, c. 23, as amended;

“Building Code Act” means the *Building Code Act, 1992,* as mended; or any successor thereto;

“cannabis plant” means a plant that belongs to the genus Cannabis.

“Cannabis Production Facilities” means a building, or part thereof, designed, used, or intended to be used for one or more of the following: cultivation, propagation, production, processing, harvesting, testing, alteration, destruction, storage, packaging, shipment or distribution of cannabis where a licence, permit or authorization has been issued under applicable federal law and does include, but is not limited to such buildings as a greenhouse and agricultural building associated with the use. It does not include a building or part thereof solely designed, used, or intended to be used for retail sales of cannabis.

“calculation date” means the date on which the first building permit is issued by the local municipality, unless otherwise stipulated in the D.C.A.;

“capital cost” means costs incurred or proposed to be incurred by the municipality or a local board thereof directly or by others on behalf of and as authorized by the municipality or local board,

i. to acquire land or an interest in land, including a leasehold interest,

ii. to improve land,

iii. to acquire, lease, construct or improve buildings and structures,

iv. to acquire, construct or improve facilities including:

    a. furniture and equipment other than computer equipment, and

    b. materials acquired for circulation, reference or information purposes by a library board as defined in the Public Libraries Act, and

    c. rolling stock with an estimated useful life of seven years or more, and

v. to undertake studies in connection with any matter under the Act and any of the matters in clauses (i) to (iv), including the development charge background study required for the provision of services designated in this by-law within or outside the municipality, including interest on borrowing for those expenditures under clauses (i), (ii), (iii) and (iv) that are growth-related;

“City” means The Corporation of the City of St. Catharines;

“commercial purpose” means used, designed, or intended for use for or in connection with the purchase and/or sale and/or rental of commodities; the provision of services for a fee; or the operation of a business office, and includes hotels and motels;

“correctional group home” means a residential building or the residential portion of a mixed-use building containing a single housekeeping unit supervised on a 24-hour basis on site by agency staff on a shift rotation basis, and funded wholly or in part by an government or its agency, or by public subscription or donation, or by any combination thereof, and licensed, approved or supervised by the Province of Ontario as a detention or correctional facility under any general or special act and amendments or replacement thereto. A correction group home may contain an office provided that the office is used only for the operation of the correctional group home in which it is located. A correctional group home shall not include any detention facility operated or supervised by the Federal Government nor any correctional institution or secure custody and detention facility operated by the Province of Ontario;

“Council” means the Council of the municipality;

“development” means the construction, erection or placing of one or more buildings or structures on land or the making of an addition or alteration to a building or structure that has the effect of increasing the size or usability thereof, and includes redevelopment; notwithstanding the foregoing, development does not include temporary structures, including but not limited to, seasonal hoop structures, seasonal fabric structures, tents, or produce sales stands;

“development charge” means a charge imposed with respect to this by-law.

“dwelling room” means either:

a) each bedroom used, designed, or intended for use by one or more persons living together in a lodging home, dormitories, or

b) in the case of a special care/special dwelling unit/room, each individual room or suite of rooms used, designed, or intended for use by one or two persons with or without exclusive sanitary and/or culinary facilities.

“dwelling unit” means any part of a building or structure used, designed, or intended to be used as a domestic establishment in which one or more persons

may sleep and are provided with culinary and sanitary facilities for their exclusive use;

"existing industrial building" means a building or buildings existing on site in the City of St. Catharines on January 3, 2022 or the first building constructed and occupied on a vacant site pursuant to site plan approval under Section 41 of the Planning Act, R.S.O. c.P.13 of the Planning Act subsequent to this by-law coming to effect for which full development charges were paid, and is being used for or in conjunction with:

i. the production, compounding, processing, packaging, crating, bottling, packing, or assembling of raw or semi-processed goods or materials in not less than seventy-five percent of the total gross floor area of the building or buildings on a site ("manufacturing") or warehousing related to the manufacturing use carried on in the building or buildings;

ii. research or development in connection with manufacturing in not less than seventy-five percent of the total gross floor area of the building or buildings on a site;

iii. retail sales by a manufacturer, if the retail sales are at the site where the manufacturing is carried out, such retail sales are restricted to goods manufactured at the site, and the building or part of a building where such retail sales are carried out does not constitute greater than twenty-five percent of the total gross floor area of the building or buildings on the site; or

iv. Office or administrative purposes, if they are,

    a. carried out with respect to manufacturing or warehousing; and

    b. In or attached to the building or structure used for such manufacturing or warehousing;

“farm building” means that part of a bona fide farming operation encompassing barns, silos, and other ancillary development to an agricultural use, but excluding a residential use and would include wholesale greenhouse facilities and structures;

“grade” means the average level of finished ground adjoining a building or structure at all exterior walls;

“granny flat” means a one-unit detached, temporary residential structure, containing culinary and sanitary facilities, that is ancillary to an existing residential structure and that is designed to be temporary;

“gross floor area” means the total area of all floors above grade of a dwelling unit measured between the outside surfaces of exterior walls or between the outside surfaces of exterior walls and the centre line of party walls dividing the dwelling unit from other dwelling unit or other portion of a building;

In the case of a non-residential building or structure, or in the case of a mixed-use building or structure in respect of the non-residential portion thereof, the total area of all building floors above or below grade measured between the outside surfaces of the exterior walls, or between the outside surfaces of exterior walls and the centre line of party walls dividing a non-residential use and a residential use, except for:

- a room or enclosed area within the building or structure above or below grade that is used exclusively for the accommodation of heating, cooling, ventilating, electrical, mechanical or telecommunications equipment that service the building;
- loading facilities above or below grade; and
- a part of the building or structure below grade that is used for the parking of motor vehicles or for storage or other accessory use;

“group home” means a residential building or the residential portion of a mixed-use building containing a single housekeeping unit which may or may not be supervised on a 24-hour basis on site by agency staff on a shift rotation basis, and funded wholly or in part by any government or its agency, or by public subscription or donation, or by any combination thereof and licensed, approved or supervised by the Province of Ontario for the accommodation of persons under any general or special act and amendments or replacements thereto. A group home may contain an office provided that the office is used only for the operation of the group home in which it is located;

“hospice” means a building or portion of a mixed-use building designed and intended to provide palliative care and emotional support to the terminally ill in a home or homelike setting so that quality of life is maintained, and family members may be active participants in care;

“industrial use” means land, buildings or structures used for or in connection with manufacturing by:

(a) manufacturing, producing, and processing goods for a commercial purpose, as well as storing and/or distribution of goods manufactured, produced, or processed on site;

(b) research or development in connection with manufacturing, producing, or processing good for a commercial purpose;

(c) retail sales by a manufacturer, producer, or processor of goods they manufactured, produced, or processed, if the retail sales are at the site where the manufacturing, production or processing takes place;

(d) office or administrative purposes if it is:

i. carried out with respect to manufacturing, producing, processing, storage or distributing of something; and

ii. in or attached to the building or structure used for that manufacturing, producing, processing, storage, or distribution;

"institutional" means lands, buildings or structures used or designed or intended for use by an organized body, society, or religious group for promoting a public or non-profit purpose and shall include, but without limiting the generality of the foregoing, places of worship, and special care facilities;

"live/work unit" means a unit which contains separate residential and non-residential areas intended for both residential and non-residential uses concurrently, and shares a common wall or floor with direct access between the residential and non-residential areas;

"local board" means a municipal service board, transportation commission, public library board, board of health, police services board, planning board, or any other board, commission, committee, body or local authority established or exercising any power or authority under any general or special Act with respect to any of the affairs or purposes of one or more local municipalities or the Region, but excluding a board of education, a conservation authority, any municipal services corporation that is not deemed to be a local board under O. Reg. 599/06 made under the Municipal Act, 2001, S.O. 2001, c. 25, as amended.

"local services" means those services, facilities or things which are under the jurisdiction of the municipality and are related to a plan of subdivision or within the area to which the plan relates in respect of the lands under Sections 41, 51 or 53 of the *Planning Act* as amended or any successor thereto;

"lodging home" means a boarding, lodging, or rooming house in which lodging is provided for more than four persons in return for renumeration or for the provision of services, or for both, and in which the lodging rooms do not have both bathrooms and kitchen facilities for the exclusive use of individual occupants;

"long term care home" means homes, nursing homes or homes for the aged where the Ministry of Health and Long-Term Care funds the care provided in

such homes and application for accommodation is made through a Community Care Access Centre;

“mezzanine” means an intermediate floor assembly between the floor and ceiling of any room or storey and includes an interior balcony;

“mixed-use building” means a building or structure used for both residential and non-residential use;

“mobile home” means any dwelling that is designed to be made mobile, and constructed or manufactured to provide a permanent residence for one or more persons, but does not include a travel trailer or tent trailer;

“multiple dwellings” means all dwellings other than single-detached, semi-detached, apartment unit and/or special care/special dwelling units;

“multiplex dwelling” means a residential building containing three or more dwelling units, each of which unit has a separate entrance to grade;

“municipality” means The Corporation of the City of St. Catharines;

“non-industrial” means all buildings or structures not defined as industrial;

“non-profit housing development” means development of a building or structure intended for use as residential premises by,

a) a corporation without share capital to which the Corporations Act applies, that is in good standing under that Act and whose primary object is to provide housing;
b) 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 object is to provide housing; or
c) a non-profit housing co-operative that is in good standing under the Co-operative Corporations Act, or any successor legislation.

"non-residential building" means a building or structure used exclusively for non-residential use, including the non-residential component of a live/work unit;

“non-residential use” means a building or structure of any kind whatsoever used, designed, or intended to be used for other than a residential use and includes all commercial, industrial, and institutional uses;

“other multiple” means all residential units other than a single detached dwelling, semi-detached dwelling, apartment dwelling or a special care/special dwelling unit, including, but not limited to, row dwellings, multiplex, back-to-back townhouse dwelling, stacked townhouse dwelling, and the residential component of live/work units;

“Official Plan” means the Official Plan adopted for the City, as amended, and approved;

“owner” means the owner of land or a person who has made application for an approval for the development of land upon which a development charge is imposed;

“parking structure” means buildings or structures uses for the parking of motor vehicles;

“place of worship” means that part of a building or structure that is exempt from taxation as a place of worship under the Assessment Act, as amended or any successor thereto;

“premise” means one or more dwelling units and/or one or more square feet used for non-residential use;

"redevelopment" means the construction, erection or placing of one or more buildings on land where all or part of a building on such land has been previously demolished, or changing the use of all or part of a building from a residential purpose to a non-residential purpose or from a non-residential purpose to a residential purpose, or changing all or part of a building from one form of

residential development to another form of residential development or from one form of non-residential development to another form of non-residential development;

“Region” means the Regional Municipality of Niagara;

“Regulation” means any regulation made pursuant to the Act.

“rental housing” means development of a building or structure with four or more dwelling units all of which are intended for use as rented residential premises;

“residential dwelling” means a building, occupied or capable of being occupied as a home, residence or sleeping place by one or more persons, containing one or more dwelling units but not including motels, hotels, tents, truck campers, tourist trailers, mobile camper trailers or boarding, lodging or rooming houses;

“residential use” means land or buildings, or structures of any kind whatsoever used, designed, or intended to be used as living accommodations for one or more individuals;

“row dwelling” means a building containing three or more attached dwelling units in a single row, each of which dwelling units has an independent entrance from the outside and is vertically separated from any abutting dwelling unit;

“semi-detached dwelling” means a dwelling unit in a residential building consisting of two dwelling units having one vertical wall or one horizontal walls, but no other parts, attached or another dwelling unit where the residential units are not connected by an interior corridor;

“service” (or "service") means those services designated in Schedule "A" to this by- law;

“servicing agreement” means an agreement between a landowner and the municipality relative to the provision of municipal services to specified lands within the municipality;

“single detached dwelling unit” means a residential building consisting of one dwelling unit and not attached to another structure and includes mobile homes.

“special care/special dwelling” means a residence:

a) containing two or more dwelling rooms, which rooms have common entrance from street level; and

b) where the occupants have the right to use in common with other occupants, halls, stairs, yards, common room, and accessory buildings; and

c) that is designed to accommodate persons with specific needs, including but not limited to, independent permanent living arrangements; and where support services, such as meal preparation, grocery shopping, laundry, housing, nursing, respite care and attending services are provided at various levels; and includes but is not limited to retirement homes or lodges, group homes, dormitories, and hospices;

“stacked townhouse dwelling” means a building containing two or more dwelling units where each dwelling unit is separated horizontally and/or vertically from another dwelling unit by a common wall or floor;

“student residence” means a Residential Development that is solely owned by a University, college of applied arts and technology or other accredited post-secondary institution, designated or intended to be used for sleeping and living accommodations by students of the university, college of applied arts and technology or other accredited post-secondary institution that owns the Residential Development.

“use” means either residential use or non-residential use.

2.0 Designation of Services and Classes

2.1 The categories of services and classes of services for which development charges are imposed under this by-law are as follows:

(a) Services Related to a Highway;
(b) Public Works;
(c) Transit Services;
(d) Fire Protection Services;
(e) Parks and Recreation Services;
(f) Library Services;
(g) Stormwater Drainage and Control Services;
(h) Wastewater Services;
(i) Water Services; and
(j) Growth Studies.

2.2 The components of the services and classes designated in subsection 2.1 are described in Schedule A.

3.0 Application of By-law Rules

3.1 Development charges shall be payable in the amounts set out in this by-law where:

(a) the lands are located in the area described in Section 3.2; and
(b) the development of the lands requires any of the approvals set out in subsection 3.4(a).

Area to Which By-law Applies

3.2 Subject to subsection 3.3, this by-law applies to all lands in the geographic area of the City of St. Catharines.

3.3 This by-law shall not apply to lands that are owned by and used for the purposes of:

(a) The City of St. Catharines or a local board thereof;
(b) A board as defined in section 1(1) of the Education Act;
(c) The Region of Niagara or a local board thereof.

Approvals for Development

3.4

(a) Development charges shall be imposed on all lands, buildings or structures that are developed for residential or non-residential uses if the development requires:

(i) the passing of a zoning by-law or of an amendment to a zoning by-law under section 34 of the *Planning Act*;

(ii) the approval of a minor variance under section 45 of the *Planning Act*;

(iii) a conveyance of land to which a by-law passed under subsection 50 (7) of the *Planning Act* applies;

(iv) the approval of a plan of subdivision under section 51 of the Planning Act;

(v) a consent under section 53 of the Planning Act;

(vi) the approval of a description under section 50 of the *Condominium Act*; or

(vii) the issuing of a permit under the *Building Code Act, 1992* in relation to a building or structure.

(b) No more than one development charge for each service designated in subsection 2.1 shall be imposed upon any lands, buildings, or structures to which this by-law applies even though two or more of the actions described in subsection 3.4(a) are required before the lands, buildings or structures can be developed.

(c) Despite subsection 3.4(b), if two or more of the actions described in subsection 3.4(a) occur at different times, additional development charges shall be imposed if the subsequent action has the effect of increasing the need for services.

Exemptions

Rules with Respect to Exemptions for Intensification of Existing Housing or New Housing

3.5 Notwithstanding the provisions of this By-law, development charges shall not be imposed with respect to developments or portions of developments as follows:

a) the enlargement to an existing residential dwelling unit;

b) one or two additional dwelling units in an existing single detached dwelling or prescribed ancillary structure to the existing residential building;

c) the creation of additional dwelling units equal to the greater of one or 1% of the existing dwelling units in an existing residential rental building containing four or more dwelling units or prescribed ancillary structure to the existing residential building;

d) the creation of one additional dwelling unit in any other existing residential building already containing at least one dwelling unit or prescribed ancillary structure to the existing residential building; or

e) 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.
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.

3.5.1 Notwithstanding subsection 3.5(b), development charges shall be imposed if the total gross floor area of the additional one or two units exceeds the gross floor area of the existing dwelling unit.

3.5.2 Notwithstanding subsection 3.5(d), development charges shall be imposed if the additional unit has a gross floor area greater than:

(a) in the case of a semi-detached or row dwelling, the gross floor area of the existing dwelling unit; and

(b) in the case of any other residential building, the gross floor area of the smallest dwelling unit already contained in the residential building.

3.6 **Exemption for Industrial Development:**

3.6.1 For the purpose of sections 3.6.2 to 3.7.3 inclusive, the term "existing industrial building" shall have the same meaning as that term has in the Regulation and shall not include self-storage or mini-storage facilities.

3.6.2 Notwithstanding any other provision of this By-law, but subject to sections 3.7.2 and 3.7.3 below, no development charge is payable with respect to the enlargement of the total floor area of an existing industrial building where the total floor area is enlarged by 50 percent or less:

3.7 If the total floor area of an existing industrial building is enlarged by greater than 50 percent, the amount of the development charge payable in respect of the enlargement is the amount of the development charge that would otherwise be payable multiplied by the fraction determined as follows:

a) determine the amount by which the enlargement exceeds 50 percent of the total floor area before the enlargement;

b) divide the amount determined under subsection 3.7(a) by the amount of the enlargement.

3.7.1 For greater certainty in applying the exemption in this section, 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, the enlarged area is attached to the existing industrial building, there is a direct means of ingress and egress from the existing industrial building to and from the enlarged area for persons, goods and equipment and the existing industrial building and the enlarged area are used for or in connection with an industrial purpose as set out in subsection 1(1) of the Regulation. 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 passageway, or through a shared below-grade connection such as a service tunnel, foundation, footing or parking facility.

3.7.2 The exemption for an existing industrial building provided by this section shall be applied up to a maximum of 50 percent of the total floor area before the first enlargement for which an exemption from the payment of development charges was granted pursuant to this By-law or any previous development charges by-law of the City made pursuant to the Act or its predecessor legislation. Development charges shall be imposed in accordance with Schedule B with respect to the amount of floor area of an enlargement that results in the total floor area of the industrial building being increased by greater than 50 percent of the total floor area of the existing industrial building.

3.7.3 For the purposes of this section, despite any new sites created which result in an existing industrial building being on a site separate from its enlargement or enlargements for which an exemption was granted under this section, further exemptions, if any, pertaining to the existing industrial building shall be calculated in accordance with section 3.7.2 on the basis of its site prior to any division.

3.8 **Other Exemptions/Reductions**

Notwithstanding the provision of this By-law, development charges shall not be imposed with respect to:

- Agricultural buildings excluding:
    a. farm help houses;
    b. all greenhouse uses related to Cannabis; and
    c. any greenhouse areas related to processing, packaging, and retail.
- Detached Accessory Dwelling Units are treated the same as attached accessory dwelling units, as long as the accessory dwelling unit is no larger than the smallest existing unit.

Reduction of Development Charges with Respect to Redevelopment and Conversion

3.9 Despite any other provision of this By-law, where, as a result of the redevelopment of land, a building or structure existing on the same land within 3 years prior to the date of payment of development charges in

regard to such redevelopment was, or is to be demolished, in whole or in part, or converted from one principal use to another principal use on the same land, in order to facilitate the redevelopment, the development charges otherwise payable with respect to such redevelopment shall be reduced by the following amounts:

a) in the case of a residential building or structure, or in the case of a mixed-use building or structure, the residential uses in the mixed-use building or structure, an amount calculated by multiplying the applicable development charge under subsection 3.8 of this by-law by the number, according to type, of dwelling units that have been or will be demolished or converted to another principal use; and provided that such amounts shall not exceed, in total, the amount of the development charges otherwise payable with respect to the redevelopment.

b) in the case of a non-residential building or structure or, in the case of mixed-use building or structure, the non-residential uses in the mixed-use building or structure, an amount calculated by multiplying the greater of the applicable development charges under subsection 3.9 or the calculated rate within the City of St. Catharines Development Charges Background Study, December 21, 2020, by the gross floor area that has been or will be demolished or converted to another principal use; provided that such amounts shall not exceed, in total, the amount of the development charges otherwise payable with respect to the redevelopment.

c) where demolition takes place on a brownfield, an application may be made to the City Treasurer for an extension of time for the redevelopment credit of up to five additional years if the redevelopment has not been able to proceed due to delays in completing the remediation works. This application must be received prior to the expiry of this By-law. This application will be considered by City Council for approval.

d) Where an existing Building is converted in whole or in part from one use (hereinafter referred to in this Section as the "First Use") to another use,

(i) the amount of Development Charges payable shall be reduced by the amount, calculated pursuant to this By-law at the current Development Charges rates in respect of the First Use;

(ii) the First Use shall be the use as confirmed through the City's Building Division and related permit records;

(iii) for greater certainty, and without limiting the generality of the foregoing, no credit shall be allowed where the converted Building or part thereof would have been exempt pursuant to this By-law; and

(iv) the amount of any credit pursuant to this Section shall not exceed, in total, the amount of the Development Charges otherwise payable pursuant to this By-law with respect to the Redevelopment.

Notwithstanding the above, for any demolition permit issued from January 1, 2010 to December 31, 2021. These shall be treated as if the demolition permit was issued on January 1, 2022 for the purpose of determining a demolition credit under the D.C. By-law.

Grant Programs

3.10 Industrial Grant Program: Notwithstanding the Non-Residential Development Charges as outlined in Schedule B, for industrial development the City shall, during the life of this by-law, maintain a grant program that shall be used to provide a grant towards any non-residential charge payable in accordance with Development Charge grant programs approved by the City.

3.11 Affordable Housing Developments: Notwithstanding the Residential Development Charges as outlined in Schedule B, a grant program related to affordable housing development shall be maintained by the City to provide a grant towards any residential development charge payable, in accordance with Development Charge grant programs approved by the City.

3.12 Urban Growth Centre Grants: Notwithstanding the development charges as outlined in Schedule B, a grant program applicable in the urban growth centre shall be maintained by the City to provide a grant towards the development charges payable in accordance with the Development Charge grant programs approved by the City.

Amount of Charges

Residential

3.13 The development charges set out in Schedule B to this By-law shall be imposed on residential uses of lands, buildings, or structures, including a dwelling unit accessory to a non-residential use and, in the case of a mixed-use building or structure, on the residential uses in the mixed-use building or structure, including the residential component of a live/work unit, according to the type of residential unit, and calculated with respect to each of the services according to the type of residential use.

Non-Residential

3.14 The development charges described in Schedule B to this By-law shall be imposed on non-residential uses of lands, buildings, or structures, and, in the case of a mixed-use building or structure, on the non-residential uses in the mixed-use building or structure, including the non-residential component of a live/work unit, and calculated with respect to each of the services according to the total floor area of the non-residential use.

Time of Calculation and Payment of Development Charges

3.15 Development charges imposed under this By-law are calculated, payable, and collected upon issuance of the first building permit for the development.

3.16 Notwithstanding subsection 3.15, the timing of calculation and payment of the services related to a highway component of development charge with respect to an approval of a Plan of Subdivision under section 51 of the Planning Act, R.S.O., 1990 as amended, shall be addressed in the subdivision agreement, subject to any applicable exemptions contained in this By-law, and calculated in accordance with subsections 3.8 and 3.9 and of this by-law.

3.17 Notwithstanding subsections 3.13 and 3.15, 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 as provided in the City's Council approved development charge interest policy, as may be revised from time to time.

3.18 Notwithstanding subsections 3.13 and 3.15, development charges for non-profit housing developments are due and payable in 21 installments commencing with the first installment payable on the date of occupancy, and each subsequent installment, including interest as provided in the City's Council approved development charge interest policy, as may be revised from time to time.

3.19 Where the development of land results from the approval of a site plan or zoning by-law amendment received on or after January 1, 2020, and the approval of the application occurred within two years of building permit issuance, the development charges under subsections 3.9 and 3.13 shall be calculated on the rates set out in Schedule "B" on the date of the planning application, including interest. Where both planning applications apply development charges under subsections 3.8 and 3.9 shall be calculated on the rates, including interest as provided in the City's Council approved development charge interest policy, as may be revised from time to time, payable on the anniversary date each year

thereafter, set out in Schedule "B" on the date of the later planning application, including interest.

3.20 Despite subsections 3.9 to 3.19, and in accordance with section 27 of the Act, Council from time to time, and at any time, may enter into agreements providing for all or any part of a development charge to be paid before or after it would otherwise be payable.

4.0 **Alternative Payment Agreements**

4.1 Council may enter into an agreement under section 27 of the Act, in a form and having content satisfactory to the City's solicitor and having content satisfactory to the Treasurer, with any person who is required to pay a development charge providing for all or any part of the development charge to be paid before or after it would otherwise be payable.

4.2 Council directs the Chief Building Official or his or her designate to withhold the issuance of a building permit in relation to a building on land to which the development charge applies unless the development charge has been paid.

5.0 **Payment by Services**

5.1 Payment of development charges shall be by cash, debit, bank draft or certified cheque or as otherwise approved at the sole discretion of the Treasurer.

5.2 In the alternative to payment by the means provided in section 5.1 herein, the City may, by a written agreement entered into with the owner, accept the provision of services in full or partial satisfaction of the development charges otherwise payable.

5.3 If the City and the owner cannot agree as to the reasonable cost of doing the work under section 5.2, the dispute shall be referred to Council whose decision shall be final and binding.

5.4 Nothing in this By-law prevents Council from requiring, as a condition of any approval given under the Planning Act, that the owner, at the owner's expense,

install such local services as Council may require or that local connections to storm drainage facilities be installed at the owner's expense.

5.5 Any refund or credit required to be given by the City to an owner shall be in relation to a service as per subsection 39(1) of the Act. The City may agree by agreement to provide a credit in relation to another service as per subsection 39(3) of the Act or may provide for another basis for recovery.

5.6 If development charges or any part thereof payable pursuant to this By-law remain unpaid after such charges are payable, the amount unpaid shall be added to the tax roll and shall be collected in the same manner as taxes.

6.0 Indexing

6.1 Development charges imposed pursuant to this by-law shall be adjusted annually on January 1st of each year, without amendment to this by-law in accordance with the Act, beginning on January 1, 2022.

7.0 Schedules

7.1 The following schedules to this by-law form an integral part thereof:

Schedule A - Components of Services Designated in subsection 2.1

Schedule B - Residential and Non-Residential Development Charges

Schedule C - Map Denoting Urban Serviced Boundary for which full Development Charges are imposed.

8.0 Date By-law in Force

8.1 This By-law shall come into force on the 1st day of January, 2022.

9.0 Date By-law Expires

9.1 This By-law will expire on the 1st day of January, 2027 unless it is repealed at an earlier date.

READ A FIRST AND SECOND TIME THIS 12th DAY OF July, 2021.

READ A THIRD TIME AND FINALLY PASSED THIS 12th DAY OF July, 2021.

THE CORPORATION OF THE CITY OF ST. CATHARINES

_____

Mayor, Walter Sendzik

_____

Clerk, Bonnie Nistico-Dunk

Schedule "A"
To By-law 21-___
Components of Services and Classes of Services Designated in Subsection 2.1

D.C.-Eligible Services:

Services Related to a Highway
- Roads and Related Infrastructure

Fire Protection Services
- Fire Facilities
- Fire Vehicles
- Fire Small Equipment and Gear

Parks and Recreation Services
- Parkland Development
- Parkland Amenities
- Park Trails
- Parks and Recreation Vehicles and Equipment
- Recreation Facilities

Library Services
- Library Facilities
- Library Vehicles
- Library Collection Materials

Transit Services
- Transit Facilities
- Transit Vehicles

Stormwater Services
- Channels, Drainage and Ponds

Wastewater Services
- Distribution System

Water Services
- Collection System

Schedule "A"
To By-law 21-___
Components of Services and Classes of Services Designated in Subsection 2.1

D.C.-Eligible Classes:

Public Works
- Facilities
- Vehicles and Equipment

Growth Studies
- Services Related to a Highway
- Water Services
- Wastewater Services
- Stormwater Services
- Fire Protection Services
- Parks and Recreation Services
- Library Services
- Transit Services

Schedule "B"
To By-law 21-___
Schedule of Development Charges

Service/Class of Service	Single and Semi-Detached Dwelling	RESIDENTIAL				NON-RESIDENTIAL	
		Other Multiples	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)	(per sq.m. of Gross Floor Area)
Municipal Wide Services:							
Services Related to a Highway	620	455	450	308	233	0.34	3.66
Public Works	2	1	1	1	1	0.00	0.00
Transit Services	674	494	489	334	253	0.39	4.20
Fire Protection Services	524	384	380	260	197	0.28	3.01
Parks and Recreation Services	6,682	4,902	4,852	3,316	2,507	0.41	4.36
Library Services	755	554	548	375	283	0.04	0.43
Growth Studies	608	446	441	302	228	0.35	3.77
Total Municipal Wide Services/Class of Services	**9,865**	**7,236**	**7,161**	**4,896**	**3,702**	**1.81**	**19.43**
Urban Services							
Stormwater Drainage and Control Services	109	80	79	54	41	0.15	1.61
Wastewater Services	132	97	96	66	50	0.07	0.75
Water Services	35	26	25	17	13	0.02	0.22
Total Urban Services	**276**	**203**	**200**	**137**	**104**	**0.24**	**2.58**
GRAND TOTAL RURAL AREA	**9,865**	**7,236**	**7,161**	**4,896**	**3,702**	**1.81**	**19.43**
GRAND TOTAL URBAN AREA	**10,141**	**7,439**	**7,361**	**5,033**	**3,806**	**2.05**	**22.01**

Schedule “C”
To By-law 21-___
Map Denoting Urban Serviced Boundary for which full Development Charges are Imposed