

DRAFT REPORT FOR PUBLIC CONSULTATION

PREPARED BY HEMSON FOR
LOYALIST TOWNSHIP

DEVELOPMENT CHARGES BACKGROUND STUDY

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EXECUTIVE SUMMARY

A. PURPOSE OF 2021 DEVELOPMENT CHARGES (DC) BACKGROUND STUDY

i. Legislative Context

The Loyalist Township 2021 Development Charges (DC) Background Study is presented as part of the process to lead to the approval of a new DC by-law in compliance with the *Development Charges Act, 1997 (DCA)*. The study is prepared in accordance with the *DCA* and associated Regulation, including the amendments that came into force on January 1, 2016, June 6, 2019, January 1, 2020 and September 17, 2020.

ii. Key Steps in Determining Future Development-Related Projects

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

iii. DC Eligible and Ineligible Costs

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

iv. The Development-Related Capital Program is Subject to Change

It is recommended that Council adopt the development-related capital program developed for the purposes of the 2021 DC Background Study. However, it is recognized that the DC Background Study is a point-in-time analysis and there may be changes to project timing, scope and costs through the Township’s normal annual budget process. The following summarizes the findings of the Loyalist Township 2021 Development Charges Background Study.

B. DEVELOPMENT FORECAST

i. Residential and Non-Residential

The table below provides a summary of the anticipated residential and non-residential growth over the 2021-2030 planning period. The Township-wide development forecast is further discussed in Appendix A.

	2020 Estimate	2021-2030	
		Growth	Total
Households	6,846	1,229	8,076
Population			
Census	16,953	1,995	18,948
In New Households		3,031	

	2020 Estimate	2021-2030	
		Growth	Total
Employment	4,373	489	4,862
Non-Residential Building Space (Square Metres)		34,224	

C. CALCULATED DEVELOPMENT CHARGES

The table below provides the calculated Township-wide charges for residential and non-residential development based on the aforementioned forecasts and as detailed in Appendix A.

	Charge by Unit Type			Charge per Square Metre	
	Singles/ Semis	Multiples	Apartments	Industrial	Non- Industrial
Total General Services	\$5,050	\$3,920	\$3,062	\$13.52	\$13.52
Total Engineered Services	\$3,907	\$3,033	\$2,370	\$24.92	\$42.57
TOTAL CHARGE	\$8,957	\$6,953	\$5,432	\$38.44	\$56.09

The rates calculated as part of this study are the maximum permissible rates under the current legislation. Council may implement rates lower than those calculated and the

revenue shortfall will need to be made up from other sources namely property taxes and user fees.

D. ASSET MANAGEMENT PLAN

A key function of the Asset Management Plan is to demonstrate that all assets proposed to be funded under the DC by-law are financially sustainable over their full life cycle.

By 2031, for General and Engineered Services, the Township will need to fund an additional \$254,900 per annum for Township-wide services in order to properly fund the full life cycle costs of the new assets supported under the 2021 Development Charges By-law.

E. LONG-TERM CAPITAL AND OPERATING COSTS

An overview of the long-term capital and operating costs for the capital facilities and infrastructure to be included in the DC by-law is provided in the study. This examination is required as one of the provisions of the *DCA*. Additional details on the long-term capital and operating impact analysis is found in Appendix E. By 2030 the Township's net operating costs are estimated to increase by about \$1.02 million per annum if all infrastructure identified in this study is emplaced.

F. MODIFICATIONS TO THE TOWNSHIP'S DEVELOPMENT CHARGES BY-LAW ARE PROPOSED

The Township is proposing to modify the current development charges by-law as part of the study process. The proposed draft by-law will be available under separate cover at least two weeks in advance of the statutory public meeting.

1. INTRODUCTION

This Loyalist Township Development Charges Background Study is presented as part of a process to lead to the approval of new development charge by-law(s) in compliance with the *Development Charges Act, 1997 (DCA)*.

A. LEGISLATIVE CONTEXT

This study is prepared in accordance with the *DCA* and associated Regulations, including recent legislative amendments. In 2019, the province announced changes to the *DCA* and the *Planning Act* through two key pieces of legislation Bill 108: *More Homes, More Choice Act* and Bill 138: *Plan to Build Ontario Together Act, 2019*. Prior to the end of the consultation process, Canada was impacted by the COVID-19 global pandemic. In response, the province of Ontario introduced legislation to enact the state of emergency and as part of that in July 2020, Bill 197 *COVID-19 Economic Recovery Act, 2020* was passed. Bill 197 reversed many of the initiatives put forward through Bill 108 and 138.

On September 17, 2020, the Province enacted Bill 197 including the following changes:

- Removal of the statutory ten per cent reduction on “soft” services
- A list of eligible services as listed in subsection 2 (4) of the *DCA*
- Ability to create service classes in subsection 7 (3) of the *DCA*
- Changes related to Community Benefits Charges (not included as part of this DC Study process)
- Others.

Other changes to the *DCA* that came into force on January 1, 2020 include the “DC Freeze” (Section 26.2 of the *DCA*) and the “DC Deferrals “(Section 26.1 of the *DCA*).

B. PURPOSE OF STUDY

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

The *DCA* provides for a period of public review and comment regarding the proposed development charges. Following completion of this process, in accordance with the *DCA* and Council's review of this study and the comments it receives regarding this study or other information brought to its attention about the proposed charges, it is intended that Council will pass new development charges for the Township.

2. TOWNSHIP-WIDE APPROACH

Several key steps are required in calculating any development charge. However, specific circumstances arise in each municipality which must be reflected in the calculation. Therefore, this study has been tailored for the Township's unique circumstances. The approach to the proposed development charges is focused on providing a reasonable alignment of development-related costs with the development that necessitates them.

A. TOWNSHIP-WIDE DEVELOPMENT CHARGES ARE CALCULATED

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

i. Services Based on a Township-Wide Approach

For the services that the Township provides, a range of capital facilities, land, equipment and infrastructure is available throughout the Township; fire stations, park facilities, arterial roads and so on. As new development occurs, new facilities will need to be added so that service levels in newly developing areas are provided at levels enjoyed in existing communities. A widely accepted method for sharing the development-related capital costs for such Township services is to apportion them over all new development anticipated in the Township. As part of the Township's 2021 DC update, no area-specific development charges are calculated.

The following services are included in the Township-wide development charge calculation:

General Services

- Emergency Services;
- Parks & Recreation; and
- Development Related Studies.

Engineered Services

- Services Related to a Highway:
 - Public Works – Buildings & Fleet; and
 - Roads & Related.
- Stormwater Management.

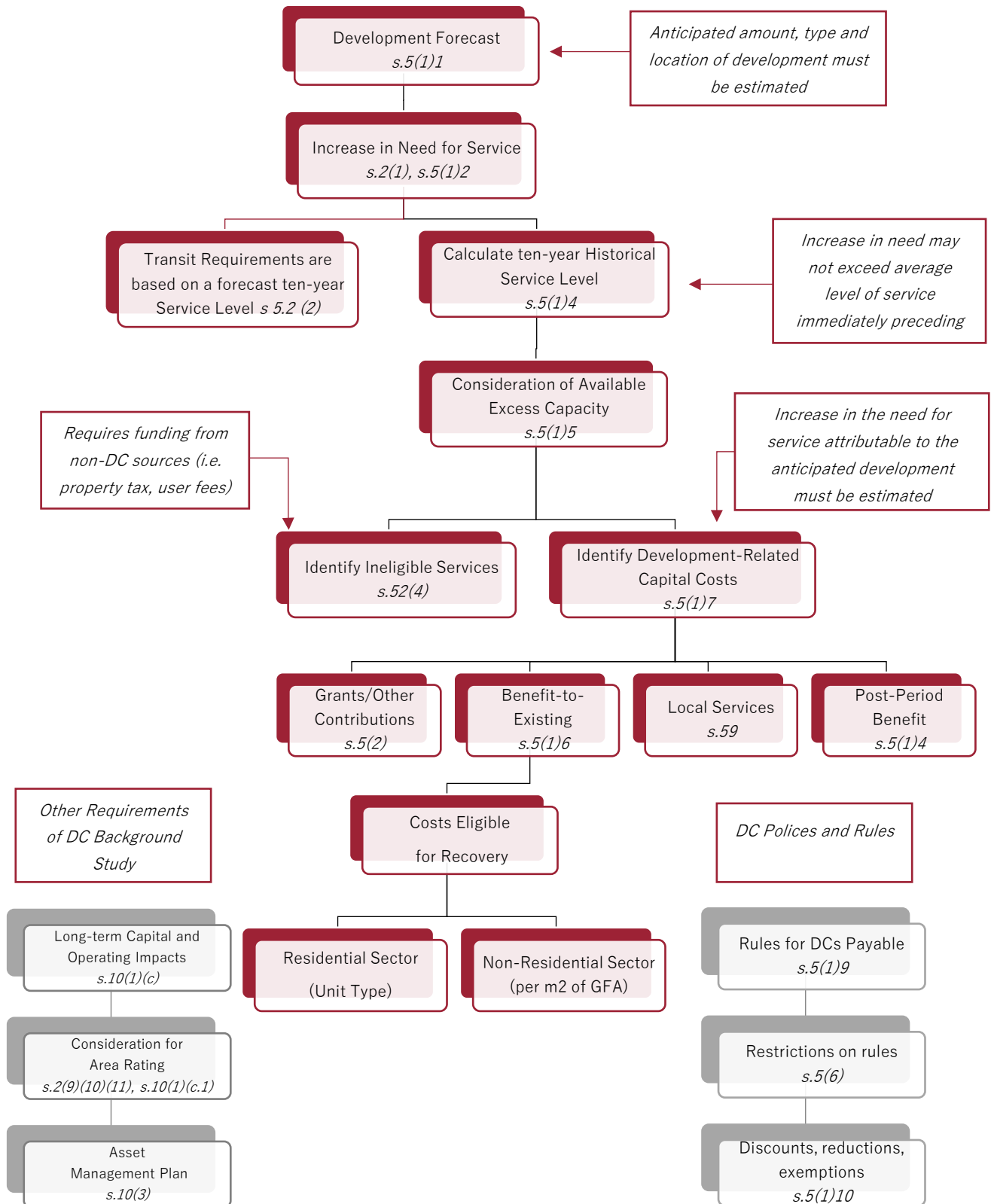
These services form a reasonable basis on which to plan and administer the development charges. The analysis of each of these services examines the individual capital facilities and equipment that make them up. For example, the Emergency Services includes various buildings and associated land, vehicles and equipment.

The resulting development charge for these services would be imposed against all development in the Township.

B. KEY STEPS IN DETERMINING DEVELOPMENT CHARGES

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

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



i. Development Forecast

The first step in the methodology requires a development forecast to be prepared for the ten-year study period, 2021–2030 for general and engineered services. The forecasts of population and households are guided by discussions with Township staff as well the Forecasts of households, population and employment outlined in *Population, Housing and Employment Projections to 2046* report prepared by Hemson Consulting in 2019.

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

The non-residential portion of the forecast estimates the Gross Floor Area (GFA) of building space to be developed over the ten-year period, 2021–2030. The forecast of GFA is based on the employment forecast for the Township. A factor for floor space per worker by category is used to convert the employment forecast into gross floor area for the purposes of the DC Background Study.

ii. Service Categories and Historical Service Levels

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

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

Historical ten-year average service levels thus form the basis for development charges. A review of Township's capital service levels for buildings, land, vehicles and so on, has therefore been prepared as a reference for the calculation, so that the portion of future capital projects that may be included in the development charge can be determined. The historical service levels used in this study have been calculated based on the period 2011–2020.

iii. **Development-Related Capital Program and Analysis of Net Capital Costs to be Included in the Development Charges**

A development-related capital program has been prepared by Township staff as part of the present study. The program identifies development-related projects and their gross and net costs, after allowing for capital grants, subsidies or other contributions as required by the Act (*DCA*, s. 5. (2)). The capital program provides another cornerstone upon which development charges are based. The *DCA* requires that the increase in the need for service attributable to the anticipated development may include an increase:

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

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

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

For some projects in the development-related capital forecast, a portion of the project may confer benefits to existing (a “BTE”) residents. As required by the *DCA*, s. 5. (1) 6., these portions of projects and their associated net costs are the funding responsibility of the Township from non-development charges sources. The amount of Township funding for such non-development shares of projects is also identified as part of the preparation of the development-related capital forecast.

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

iv. Attribution to Types of Development

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

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

Finally, the residential component of the Township-wide charge is applied to different housing types on the basis of average occupancy factors. The non-residential component is applied on the basis of gross building space in square metres.

v. Final Adjustment

The final determination of the development charge results from adjustments made to development-related net capital costs for each service and sector resulting from the application of any unallocated reserve fund balances available to finance the development-related capital costs in the capital forecast. A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges for Township-wide services. Interest earnings or borrowing costs are therefore accounted for in the calculation as allowed under the *DCA*.

vi. Note on Rounding

Due to rounding in some tables, numbers may not add up precisely to the totals indicated and percentages may not precisely reflect the absolute figures for the same reason.

3. DEVELOPMENT FORECAST

This section provides the basis for the development forecasts used in calculating the DCs, as well as a summary of the forecast results. A more detailed summary of the forecasts, including tables illustrating historical trends and forecast results is provided in Appendix A.

A. RESIDENTIAL FORECAST

DCs are levied on residential development as a charge per new unit. Therefore, for the residential forecast, a projection of both the *population growth*¹ as well as the *population in new units* is required.

- The *population growth* determines the need for additional facilities and provides the foundation for the development-related capital program.
- When calculating the DC, however, the development-related net capital costs are spread over the total additional population that occupy new housing units. This population in new units represents the population from which DCs will be collected.

Table 1 provides a summary of the residential forecast over the ten-year planning period, from 2021 to 2030. As noted in Section 2, for DC calculation purposes, the ten-year planning period is applicable to both general and engineered services, and has been utilized in the calculation of the DCs.

The Township's Census population is expected to increase by approximately 1,995 people over the next ten years, reaching 18,948 by 2030. About 1,229 additional occupied dwelling units are forecast to be built between 2021 and 2030 and the population residing in these units is expected to increase by 3,031.

B. NON-RESIDENTIAL FORECAST

DCs are levied on non-residential development as a charge per square metre of gross floor area (GFA). As with the residential forecast, the non-residential forecast requires both a projection of *employment growth* as well as a projection of the *employment growth associated with new floorspace* in the Township.

¹ Commonly referred to as "net population growth" in the context of development charges. Penitentiary population is excluded from the historical and forecast period.

The non-residential forecast projects an increase of 489 employees to 2030, which is anticipated to be accommodated in 34,224 square metres of new non-residential building space. Table 1 also provides a summary of the non-residential development forecasts used in this analysis.

TABLE 1

LOYALIST TOWNSHIP

RESIDENTIAL AND NON-RESIDENTIAL GROWTH FORECAST

	2020 Estimate	2021-2030	
		Growth	Total
Households	6,846	1,229	8,076
Population			
Census	16,953	1,995	18,948
In New Households		3,031	

	2020 Estimate	2021-2030	
		Growth	Total
Employment	4,373	489	4,862
Non-Residential Building Space (Square Metres)		34,224	

4. SUMMARY OF HISTORICAL CAPITAL SERVICE LEVELS

The *DCA* and *Ontario Regulation 82/98* require that DCs be set at a level no higher than the average level of service provided in the Township over the ten-year period immediately preceding the preparation of the Background Study, on a service by service basis.

For the services of Emergency Services, Parks & Recreation, Public Works – Buildings & Fleet and Roads & Related, the legislative requirement is met by documenting historical service levels for the preceding ten years, in this case, for the period from 2011 to 2020. Typically, service levels for these services are measured as a ratio of inputs per capita, or per population plus employment.

O. Reg. 82/98 requires that when determining historical service levels, both quantity and quality of service be taken into consideration. In most cases, the service levels are initially established in quantitative terms. For example, service levels for buildings are presented in terms of square feet per capita. The qualitative aspect is introduced by the consideration of the monetary value of the facility or service. In the case of buildings, for example, the cost would be shown in terms of dollars per square foot to replace or construct a facility of the same quality. This approach helps to ensure that the development-related capital facilities that are to be charged to new development reflect not only the quantity (number and size) but also the quality (value or replacement cost) of service provided historically by the Township. Both the quantitative and qualitative aspects of service levels used in the present analysis are based on information provided by Township staff, based on historical records and experience with costs to acquire or construct similar facilities, equipment and infrastructure as of 2020.

The service levels are expressed as a dollar value per capita (\$/capita) or a dollar value per capita plus employment (\$/capita & employment) of infrastructure value. This service level expression is a construction to meet the requirement of subsection 5(1) of the *DCA* and does not directly reflect the utilization of infrastructure or the way municipalities plan for services.

Table 2 summarizes service levels for all applicable services included in the DC calculation. Appendices B, C.1.1 and C.1.2 provide the detailed historical inventory data upon which the calculation of service levels is based.

TABLE 2

LOYALIST TOWNSHIP
SUMMARY OF AVERAGE HISTORICAL SERVICE LEVELS 2011-2020

Service	2011-2020 Service Level Indicator	Service Measure
1.0 EMERGENCY SERVICES	\$902.26	per capita & employment
Buildings	\$407.20	per capita & employment
Land	\$60.61	per capita & employment
Vehicles	\$361.55	per capita & employment
Furniture and Equipment	\$72.90	per capita & employment
2.0 PARKS & RECREATION	\$1,615.19	per capita
Indoor Recreation	\$1,322.48	per capita
Parkland	\$63.38	per capita
Park Facilities	\$161.58	per capita
Special Facilities	\$67.75	per capita
<u>SERVICES RELATED TO A HIGHWAY</u>		
3.0 PUBLIC WORKS - BUILDINGS & FLEET	\$862.13	per capita & employment
Building	\$400.85	per capita & employment
Land	\$80.43	per capita & employment
Fleet	\$380.85	per capita & employment
4.0 ROADS & RELATED	\$9,371.90	per capita & employment
Roads	\$6,214.17	per capita & employment
Bridges & Culverts	\$1,757.63	per capita & employment
Sidewalks	\$1,154.85	per capita & employment
Other Roads & Related	\$245.25	per capita & employment

5. THE DEVELOPMENT-RELATED CAPITAL PROGRAM

The *DCA* requires the Council of a municipality to express its intent to provide future capital facilities at the level reflected by the capital program incorporated in the DC calculation and recovered through the proposed rates. *Ontario Regulation 82/98*, s. 3 states that:

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

A. DEVELOPMENT-RELATED CAPITAL FORECAST IS PROVIDED FOR COUNCIL'S APPROVAL

Based on the development forecasts detailed in Appendix A, Township staff have created a development-related capital program setting out those projects that are required to service anticipated development. For all general and engineered services, the capital plan covers the ten-year period from 2021 to 2030.

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

B. THE DEVELOPMENT-RELATED CAPITAL FORECAST FOR GENERAL SERVICES

A summary of the development-related capital forecast for general services is presented in Table 3.

The table provides a total for all general services analysed over the ten-year planning period. Further details on the capital plans for each individual service category are available

in Appendix B. The development-related capital forecast for general services estimates a total gross cost of \$32.20 million. Alternative funding sources have been identified in the amount of \$15.0 million and account for contributions towards the first phase of the Community Hub. Therefore, the net municipal cost of the capital program is reduced to \$17.20 million.

Of the \$17.20 million ten-year net municipal capital costs for general services, \$13.22 (77 per cent) is related to the Parks & Recreation capital program. The forecast includes Phase 1 of the Community Hub, Recreation Maintenance Garage Expansion, a Parks & Recreation Master Plan and various vehicles, equipment, parks and amenities.

The next largest portion of the capital forecast relates to Emergency Services development-related capital program at \$3.22 million (19 per cent). The program includes the recovery of completed projects (Amherstview Fire Station and Aerial Truck), an expansion to Odessa Station, extrication equipment and a Fire Master Plan.

Lastly, Development Related Studies includes \$756,800 in net capital costs (4 per cent of the capital program) and includes a series of development-related studies planned over the period.

TABLE 3

LOYALIST TOWNSHIP
SUMMARY OF DEVELOPMENT-RELATED CAPITAL FORECAST
GENERAL SERVICES: 2021 - 2030

Service	Gross Cost (\$000)	Grants/ Subsidies (\$000)	Capital Cost (\$000)
1.0 EMERGENCY SERVICES	\$3,219.2	\$0.0	\$3,219.2
1.1 Recovery of Completed Projects - Station (1)	\$647.7	\$0.0	\$647.7
1.2 Recovery of Completed Projects - Vehicles (1)	\$526.4	\$0.0	\$526.4
1.3 Buildings, Land & Furnishings and Equipment	\$2,040.0	\$0.0	\$2,040.0
1.4 Studies	\$5.0	\$0.0	\$5.0
2.0 PARKS & RECREATION	\$28,220.0	\$15,000.0	\$13,220.0
2.1 Buildings, Land & Furnishings	\$26,650.0	\$15,000.0	\$11,650.0
2.2 Vehicles and Equipment	\$159.0	\$0.0	\$159.0
2.3 Parks and Amenities	\$1,351.0	\$0.0	\$1,351.0
2.4 Studies	\$60.0	\$0.0	\$60.0
2.5 Other Expansion Activities	\$0.0	\$0.0	\$0.0
3.0 DEVELOPMENT-RELATED STUDIES	\$756.8	\$0.0	\$756.8
3.1 Studies	\$756.8	\$0.0	\$756.8
TOTAL - 10 YEAR GENERAL SERVICES	\$32,196.0	\$15,000.0	\$17,196.0

Note 1: The Debt payments and internal loan only reflect the DC eligible related component of the total debenture. Interest charges are included in the cash flow

The capital program incorporates those projects identified to be related to development anticipated in the next ten years. It is not implied that all of these costs are to be recovered from new development by way of DCs. Portions of this capital forecast may relate to providing servicing for development which has occurred prior to 2021 (for which DC reserve fund balances exist), for replacement of existing capital facilities or for development anticipated to occur beyond the 2021–2030 planning period.

C. THE DEVELOPMENT-RELATED CAPITAL FORECAST FOR ENGINEERED SERVICES

Table 4 provides the development-related capital recoveries for the engineered services of Services Related to a Highway (Roads & Related and Public Works – Buildings & Fleet) and Stormwater Management. The capital program totals \$12.05 million and provides servicing for anticipated development over the planning period from 2021 to 2030. Further details on

the capital plans for each individual service category are available in Appendix C. Grants, subsidies and alternative funding sources (inclusive of developer contributions) have been identified in the amount of \$1.99 million for the capital projects and, as such, the remaining net cost of \$10.06 million is the cost to be paid by the Township.

Of the total net capital costs, 41 per cent, or \$4.17 million is associated with development-related Roads & Related projects. The capital program includes various infrastructure road works (including construction on Main Street at Bath and Windermere and Amherst Drive from Speers West to County Road 6), sidewalks and multi-use pathways, streetlighting and studies.

The Public Works – Buildings & Fleet net capital program totals \$4.83 million and represents 48 per cent of the engineered services program. Included in the cost is an expansion of the Public Works Garage, a Cold Storage Building and the acquisition of various fleet assets (including half tons, a loader, bucket truck/trailer and sidewalk plows).

Stormwater Management capital projects include a Stormwater Servicing Feasibility Study/Infrastructure Master Plan and various urban Stormwater management works (including Amherst Drive from Speers West to County Road 6 and County Road 6 from Amherst Drive to Kildare). The net municipal cost of the program is \$1.06 million, or about 11 per cent of all engineering services costs.

TABLE 4

LOYALIST TOWNSHIP
SUMMARY OF DEVELOPMENT-RELATED CAPITAL FORECAST
ENGINEERED SERVICES: 2021 - 2030

Service	Gross Cost (\$000)	Grants/ Subsidies (\$000)	Capital Cost (\$000)
1.0 SERVICES RELATED TO A HIGHWAY: ROADS & RELATED	\$5,563.0	\$1,389.7	\$4,173.3
1.1 Road Work	\$3,808.1	\$704.7	\$3,103.4
1.2 Sidewalks/Multi-Use Pathways	\$815.9	\$0.0	\$815.9
1.3 Streetlighting	\$200.0	\$0.0	\$200.0
1.4 Studies	\$54.0	\$0.0	\$54.0
1.5 Other Road Projects - Developer or LIC Funded	\$685.0	\$685.0	\$0.0
2.0 SERVICES RELATED TO A HIGHWAY: PUBLIC WORKS - BUILDINGS & FLEET	\$4,829.7	\$0.0	\$4,829.7
2.1 Buildings, Land & Furnishings	\$3,890.7	\$0.0	\$3,890.7
2.2 Fleet	\$939.0	\$0.0	\$939.0
2.0 STORMWATER MANAGEMENT	\$1,658.9	\$602.5	\$1,056.4
2.1 Studies - Storm Feasibility Study	\$59.0	\$0.0	\$59.0
2.2 Urban Stormwater Management	\$1,129.9	\$132.5	\$997.4
2.3 Other Stormwater Projects - Developer or LIC Funded	\$470.0	\$470.0	\$0.0
TOTAL - 10 YEAR ENGINEERED SERVICES	\$12,051.6	\$1,992.2	\$10,059.4

6. CALCULATED DEVELOPMENT CHARGES

This section summarizes the calculation of DCs for each service category and the resulting total charges by sector. For all Township services, the calculation of the “unadjusted” per capita (residential) and per square metre (non-residential) charges are reviewed.

Adjustments to these amounts resulting from a cash flow analysis that takes interest earnings and borrowing costs into account are also discussed.

For residential development, the adjusted total per capita amount is converted to a variable charge by housing unit type using various unit occupancy factors. For non-residential development, the charges are based on gross floor area of building space.

It is noted that the calculation of the Township-wide DCs does not include any provision for exemptions required under the *DCA*, such as the exemption from the payment of DCs for industrial buildings. Such legislated exemptions, or other exemptions that Council may choose to provide, will result in loss of DC revenue for the affected types of development. However, any such revenue loss may not be made up by offsetting increases in other portions of the calculated charge.

A. UNADJUSTED DEVELOPMENT CHARGES CALCULATION

A summary of the “unadjusted” residential and non-residential DCs is presented in Tables 5 and 6 for general and engineered services, respectively. Further details of the calculations for each individual service category are available in Appendices B and C.

i. General Services

A summary of the “unadjusted” residential and non-residential DCs for general services is presented in Table 5.

The net capital forecast for the ten-year services totals \$17.20 million and incorporates those projects identified to be related to the development anticipated in the next ten years. However, not all of the capital costs are to be recovered from new development by way of DCs. As shown on Table 5, 54 per cent, or \$9.25 million relates to replacement of existing capital facilities or for shares of projects that provide benefit to the existing community. These portions of capital costs will have to be funded from non-DC revenue sources, largely property taxes for this group of services.

An additional share of \$543,600 has been identified as available DC reserve funds and represents the revenue collected from previous DCs. This portion has been netted out of the chargeable capital costs.

Other development related shares of \$2.04 million have been identified and is largely attributable to development beyond 2030. This development-related share has been removed from the calculation and may therefore be recovered under future DC studies.

The total costs eligible for recovery through DCs for ten-year services is \$5.36 million. This amount is allocated between the residential and non-residential sectors to derive the unadjusted DCs. Parks & Recreation is deemed to benefit residential development only, while the remaining services are allocated between both sectors based on shares of population and employment growth in new space. The allocation to the residential sector for these services is calculated at 80 per cent and 20 per cent to the non-residential sector.

Approximately \$4.93 million of the general services DC eligible capital program is deemed to benefit residential development. When this amount is divided by the ten-year growth in population in new dwelling units (3,031), an unadjusted charge of \$1,628.19 per capita results. The non-residential share totals \$428,100 which yields an unadjusted charge of \$12.51 per square metre when divided by the ten-year increase in non-residential building space (34,224).

TABLE 5

LOYALIST TOWNSHIP
SUMMARY OF UNADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
10-YEAR GENERAL SERVICES

10-Year Growth in Population in New Units	3,031
10-Year Growth in Square Meters	34,224

Service	Development-Related Capital Forecast (2021-2030)								
	Net Municipal Cost (\$000)	Replacement & Benefit to Existing (\$000)	Prior Growth (\$000)	Other Dev. Related (\$000)	Total DC Eligible Costs for Recovery (\$000)				
						Residential Share %		Non-Residential Share %	
1.0 EMERGENCY SERVICES	\$3,219.2	\$1,502.5	\$0.0	\$0.0	\$1,716.7	80%	\$1,373.34	20%	\$343.33
Unadjusted Development Charge Per Capita (\$)							\$453.13		
Unadjusted Development Charge Per Square Metre (\$)									\$10.03
2.0 PARKS & RECREATION	\$13,220.0	\$7,607.6	\$348.1	\$2,042.0	\$3,222.3	100%	\$3,222.31	0%	\$0.00
Unadjusted Development Charge Per Capita (\$)							\$1,063.19		
Unadjusted Development Charge Per Square Metre (\$)									\$0.00
3.0 DEVELOPMENT-RELATED STUDIES	\$756.8	\$137.5	\$195.5	\$0.0	\$423.8	80%	\$339.05	20%	\$84.76
Unadjusted Development Charge Per Capita							\$111.87		
Unadjusted Development Charge Per Square Metre (\$)									\$2.48
TOTAL 10 YEAR CAPITAL PROGRAM	\$17,196.0	\$9,247.6	\$543.6	\$2,042.0	\$5,362.8		\$4,934.7		\$428.1
Unadjusted Development Charge Per Capita (\$)							\$1,628.19		
Unadjusted Development Charge Per Square Metre (\$)									\$12.51

ii. Engineered Services

Table 6 displays the calculation of the unadjusted DC rates for the engineered services of Services Related to a Highway (Roads & Related and Public Works – Buildings & Fleet) and Stormwater Management. The development-related engineering infrastructure will be used to service development in Loyalist between 2021 and 2030.

Of the total net municipal cost of all engineered services development-related projects, \$10.06 million, not all are to be recovered from new development by way of DCs. Table 6 shows that \$1.72 million of the capital program relates to replacement of existing capital works or for shares of projects that provide benefit to the existing community. This amount has been netted off the chargeable capital costs.

Available reserve funds in the amount of \$1.99 million, have also been removed from the DC calculation. Other development related shares have been calculated at \$1.30 million and represent the shares of projects that will provide benefit to development beyond 2030 in the Township. These shares have also been removed from the DC calculation. The remaining \$5.05 million is related to development in the 2021 to 2030 planning period and has been included in the DC calculation.

Like the general services, the capital program eligible for recovery through DCs is allocated to the residential and non-residential sectors based on future shares of population in new units and employment growth over the planning period. On this basis, the allocation to the residential and non-residential sectors is calculated at 80 and 20 per cent, respectively. For Roads & Related services, the non-residential share of the development-related costs has been further allocated between industrial and non-industrial land uses. The non-industrial costs are allocated between the land use types consistent with the allocation in the last study (based on trip generation that would be generated by the forecast new non-residential development over the period from 2021-2030) plus employment growth within the sectors. The result is an allocation of 30 per cent to industrial and 70 per cent to all other non-industrial land uses.

As a result, \$4.04 million of the engineered services capital program is deemed to benefit residential development. When this amount is divided by the long-term growth in population in new dwelling units (3,031) results in an unadjusted charge of \$1,333.16 per capita.

The non-residential share totals \$1.01 million. Both Public Works – Buildings & Fleet and Stormwater Management are divided by total ten-year growth in square metres of 34,224. Roads & Related is broken down between Industrial development (with ten-year growth of 22,270) and Non-Industrial development (11,953) which yields a charge of \$23.23 and \$41.21, respectively.

TABLE 6

LOYALIST TOWNSHIP
SUMMARY OF UNADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
10-YEAR ENGINEERED SERVICES

10 Year Growth in Population in New Units	3,031
10 Year Growth in Square Meters	34,224
<i>Industrial</i>	<i>22,270</i>
<i>Non-Industrial</i>	<i>11,953</i>

Service	Growth-Related Capital Forecast (2021-2030)								
	Net Municipal Cost (\$000)	Replacement & Benefit to Existing (\$000)	Prior Growth (\$000)	Other Dev. Related (\$000)	Total DC Eligible Costs for Recovery (\$000)				
1.0 SERVICES RELATED TO A HIGHWAY: ROADS & RELATED	\$4,173.3	\$812.8	\$1,366.9	\$0.0	\$1,993.6	80%	\$1,594.9	20%	\$398.7
Unadjusted Development Charge Per Capita (\$)							526.23		
<i>Non-Industrial</i>									
Share of Non-Residential Capital Program								70%	\$279.11
Unadjusted Development Charge Per Square Metre (\$)									\$23.35
<i>Industrial</i>									
Share of Non-Residential Capital Program								30%	\$119.62
Unadjusted Development Charge Per Square Metre (\$)									\$5.37
2.0 SERVICES RELATED TO A HIGHWAY: PUBLIC WORKS - BUILDINGS & FLEET	\$4,829.7	\$897.4	\$491.2	\$1,299.6	\$2,141.5	80%	\$1,713.22	20%	\$428.31
Unadjusted Development Charge Per Capita							\$565.27		
Unadjusted Development Charge Per Square Metre (\$)									\$12.51
3.0 STORMWATER MANAGEMENT	\$1,056.4	\$10.0	\$130.9	\$0.0	\$915.5	80%	\$732.4	20%	\$183.1
Unadjusted Development Charge Per Capita (\$)							241.66		
Unadjusted Development Charge Per Square Metre (\$)									5.35
TOTAL 10 YEAR CAPITAL PROGRAM	\$10,059.4	\$1,720.2	\$1,989.0	\$1,299.6	\$5,050.7		\$4,040.5		\$1,010.1
Unadjusted Development Charge Per Capita (\$)							\$1,333.16		
Unadjusted Development Charge Per Square Metre (\$) - Non-Industrial									\$41.21
Unadjusted Development Charge Per Square Metre (\$) - Industrial									\$23.23

iii. **Adjusted Residential and Non-Residential Development Charges**

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

Table 7 summarizes the results of the cash flow adjustments for the Township-wide residential DC rates. The adjusted per capita rate increases by \$271 from \$2,961 per capita to \$3,233 per capita after the cash flow analysis for the residential DC.

Table 7 also provides the calculated rates by residential unit. As shown in the table, the proposed urban residential charge ranges from \$8,957 for a single- or semi-detached unit to \$5,432 for apartments. The proposed charge for rows and other multiples is \$6,953 per unit.

For the non-residential development charges, the non-industrial rate experiences an increase of \$2.37 from \$53.72 to \$56.09 after cash flow considerations as shown in Table 8. The unadjusted industrial charge of \$35.74 increases by \$2.70 to arrive at an adjusted charge of \$38.44.

TABLE 7

LOYALIST TOWNSHIP
TOWNSHIP-WIDE DEVELOPMENT CHARGES
RESIDENTIAL DEVELOPMENT CHARGES

Service	Unadjusted Charge Per Capita	Adjusted Charge Per Capita	Residential Charge By Unit Type (1)			Percentage of Charge
			Singles/Semis	Multiples	Apartments	
Emergency Services	\$453	\$493	\$1,366	\$1,060	\$828	15%
Parks & Recreation	\$1,063	\$1,209	\$3,349	\$2,600	\$2,031	37%
Development-Related Studies	\$112	\$121	\$335	\$260	\$203	4%
<i>Services Related To A Highway</i>						
<i>Roads & Related</i>	\$526	\$518	\$1,435	\$1,114	\$871	16%
<i>Public Works - Buildings & Fleet</i>	\$565	\$650	\$1,801	\$1,398	\$1,092	20%
Stormwater Management	\$242	\$242	\$671	\$521	\$407	8%
TOTAL CHARGE PER UNIT	\$2,961	\$3,233	\$8,957	\$6,953	\$5,432	100%
(1) Based on Persons Per Unit Of:			2.77	2.15	1.68	

TABLE 8

LOYALIST TOWNSHIP
TOWNSHIP-WIDE DEVELOPMENT CHARGES
NON-INDUSTRIAL DEVELOPMENT CHARGES

Service	Unadjusted Charge (\$/Square Metre)	Adjusted Charge (\$/Square Metre)	Percentage of Charge
Emergency Services	\$10.03	\$10.85	19%
Parks & Recreation	\$0.00	\$0.00	0%
Development-Related Studies	\$2.48	\$2.67	5%
<i>Services Related To A Highway</i>			
<i>Roads & Related</i>	<i>\$23.35</i>	<i>\$22.92</i>	<i>41%</i>
<i>Public Works - Buildings & Fleet</i>	<i>\$12.51</i>	<i>\$14.31</i>	<i>26%</i>
Stormwater Management	\$5.35	\$5.34	9%
TOTAL CHARGE PER SQUARE METRE	\$53.72	\$56.09	100%

TOWNSHIP-WIDE DEVELOPMENT CHARGES
INDUSTRIAL DEVELOPMENT CHARGES

Service	Unadjusted Charge (\$/sq.m)	Adjusted Charge (\$/sq.m)	Percentage of Charge
Emergency Services	\$10.03	\$10.85	28%
Parks & Recreation	\$0.00	\$0.00	0%
Development-Related Studies	\$2.48	\$2.67	7%
<i>Services Related To A Highway</i>			
<i>Roads & Related</i>	<i>\$5.37</i>	<i>\$5.27</i>	<i>14%</i>
<i>Public Works - Buildings & Fleet</i>	<i>\$12.51</i>	<i>\$14.31</i>	<i>37%</i>
Stormwater Management	\$5.35	\$5.34	14%
TOTAL CHARGE PER SQUARE METRE	\$35.74	\$38.44	100%

7. COMPARISON OF CALCULATED AND CURRENT DEVELOPMENT CHARGES

Table 9 presents a comparison of the newly calculated residential DCs with the Township's current charges. The calculated residential DC for a single- or semi-detached unit is \$8,957, or 56 per cent greater than the Township's residential charge currently in force of \$5,746.

Tables 10 and 11 outline the comparison of current vs calculated non-industrial and industrial development charges in the Township. As per Table 10, the calculated rate non-industrial rate of \$56.09 is \$25.11 (or 81 per cent) higher than the Township's current charge of \$30.98 per square metre. The calculated industrial DC of \$38.44 in Table 11 is \$17.22 (or 81 per cent) higher than the current charge of \$21.22 per square metre.

TABLE 9

**LOYALIST TOWNSHIP
COMPARISON OF CURRENT AND CALCULATED
RESIDENTIAL DEVELOPMENT CHARGES**

Service	Current Residential (\$/SDU)	Calculated Residential (\$/SDU)	Difference in Charge	
Emergency Services	\$1,686	\$1,366	(\$320)	-19%
Parks & Recreation	\$1,288	\$3,349	\$2,061	160%
Development-Related Studies	\$294	\$335	\$41	14%
<i>Services Related To A Highway</i>				
<i>Roads & Related</i>	<i>\$1,161</i>	<i>\$1,435</i>	<i>\$274</i>	<i>24%</i>
<i>Public Works - Buildings & Fleet</i>	<i>\$1,093</i>	<i>\$1,801</i>	<i>\$708</i>	<i>65%</i>
Stormwater Management	\$224	\$671	\$447	200%
TOTAL CHARGE PER SDU	\$5,746	\$8,957	\$3,211	56%

TABLE 10

LOYALIST TOWNSHIP
COMPARISON OF CURRENT AND CALCULATED
NON-INDUSTRIAL DEVELOPMENT CHARGES

Service	Current Non-Industrial (\$/Square Metre)	Calculated Non-Industrial (\$/Square Metre)	Difference in Charge	
Emergency Services	\$9.88	\$10.85	\$0.97	10%
Parks & Recreation	\$0.00	\$0.00	\$0.00	0%
Development-Related Studies	\$1.73	\$2.67	\$0.94	54%
<i>Services Related To A Highway</i>				
<i>Roads & Related</i>	<i>\$11.68</i>	<i>\$22.92</i>	<i>\$11.24</i>	<i>96%</i>
<i>Public Works - Buildings & Fleet</i>	<i>\$6.38</i>	<i>\$14.31</i>	<i>\$7.93</i>	<i>124%</i>
Stormwater Management	\$1.31	\$5.34	\$4.03	308%
TOTAL CHARGE PER SQUARE METRE	\$30.98	\$56.09	\$25.11	81%

TABLE 11

LOYALIST TOWNSHIP
COMPARISON OF CURRENT AND CALCULATED
INDUSTRIAL DEVELOPMENT CHARGES

Service	Current Industrial (\$/Square Metre)	Calculated Industrial (\$/Square Metre)	Difference in Charge	
Emergency Services	\$9.88	\$10.85	\$0.97	10%
Parks & Recreation	\$0.00	\$0.00	\$0.00	0%
Development-Related Studies	\$1.73	\$2.67	\$0.94	54%
<i>Services Related To A Highway</i>				
<i>Roads & Related</i>	<i>\$1.92</i>	<i>\$5.27</i>	<i>\$3.35</i>	<i>175%</i>
<i>Public Works - Buildings & Fleet</i>	<i>\$6.38</i>	<i>\$14.31</i>	<i>\$7.93</i>	<i>124%</i>
Stormwater Management	\$1.31	\$5.34	\$4.03	308%
TOTAL CHARGE PER SQUARE METRE	\$21.22	\$38.44	\$17.22	81%

8. COST OF GROWTH ANALYSIS

This section provides a brief examination of the long-term capital and operating costs as well as the asset management-related annual provisions for the capital facilities and infrastructure to be included in the DC By-law. This examination is required as one of the provisions of the *DCA*. Additional details on the cost of growth analysis, including asset management analysis is included in Appendix E.

A. ASSET MANAGEMENT PLAN

Table 12 provides the calculated annual asset management contribution for the gross capital expenditures by 2031 and the share related to the 2021-2030 DC recoverable portion. The year 2031 has been included to calculate the annual contribution for the 2021-2030 period as the expenditures in 2030 will not trigger asset management contributions until 2031. As shown in Table 12, by 2031, the Township should fund an additional \$254,900 per annum in order to fund the full life cycle costs of the new assets related to the Township-wide ten-year Services supported under the development charges by-law.

TABLE 12

LOYALIST TOWNSHIP
ANNUAL ASSET MANAGEMENT PROVISION

Service	2021-2030 Capital Program		Calculated AMP Annual Provision by 2031	
	DC Related	Non DC Related*	DC Related	Non DC Related
Emergency Services	\$1,717,000	\$1,503,000	\$12,200	\$30,400
Parks & Recreation	\$3,570,000	\$24,650,000	\$75,700	\$544,800
Development-Related Studies	\$619,000	\$138,000	\$0	\$0
<i>Services Related to a Highway</i>				
<i>Public Works - Buildings & Fleet</i>	\$2,633,000	\$2,197,000	\$71,800	\$57,100
<i>Roads & Related</i>	\$3,361,000	\$2,202,000	\$73,500	\$45,900
Stormwater Management	\$1,046,000	\$613,000	\$21,700	\$13,200
Total	\$12,946,000	\$31,303,000	\$254,900	\$691,400

B. LONG-TERM CAPITAL AND OPERATING COSTS

Table 13 summarizes the estimated increase in net operating costs that the Township will experience for additions associated with the planned capital program. Further details can be found in Appendix E.

By 2030, the Township's net operating costs are estimated to increase by \$1.02 million. It is noted that operating costs associated with major facilities will be reviewed and updated through future studies and plans.

Appendix E also summarizes the components of the development related capital program that will require funding from non-development charge sources. Of the \$27.26 million in the 2021-2030 net capital program cost, about \$10.97 million will need to be financed from non-development charge sources over the next ten years. This is entirely related to shares of projects related to capital replacement and for non-development shares of projects that provide benefit to the existing (BTE) community.

Council is made aware of these factors so that they understand the financial implications of the quantum and timing of the projects included in the development related capital forecast in this study.

C. THE PROGRAM IS DEEMED TO BE FINANCIALLY SUSTAINABLE

In summary, the asset management plan and long-term capital and operating analysis contained in Appendix E demonstrates that the Township can afford to invest and operate the identified general and engineered services infrastructure over the ten-year planning period.

Importantly, the Township's annual budget review allows staff to continue to monitor and implement mitigating measures should the program become less sustainable.

TABLE 13

LOYALIST TOWNSHIP
SUMMARY OF LONG TERM CAPITAL AND
OPERATING COST IMPACTS FOR ALL SERVICES
(in thousands of constant dollars)

2030	
NET OPERATING IMPACTS (1)	
Emergency Services	\$54.0
Parks & Recreation	\$322.2
Development-Related Studies	\$0.0
Services Related To A Highway	
<i>Roads & Related</i>	<i>\$430.3</i>
<i>Public Works - Buildings & Fleet</i>	<i>\$214.2</i>
Stormwater Management (2)	\$0.0
NET OPERATING IMPACTS	\$1,020.6
LONG-TERM CAPITAL IMPACTS (1)	
Total Net Cost	\$27,255.4
Net Cost From Development Charges	\$10,413.5
Prior Growth Share from DC Reserve Balances (3)	\$2,532.5
Portion for Other Dev. Related Capital (4)	\$3,341.6
Funding From Non-DC Sources	
- Replacement	\$10,967.8
FUNDING FROM NON-DC SOURCES	\$10,967.8

Notes:

- (1) See Appendix E.
- (2) No impact
- (3) Existing development charge reserve fund balances collected from growth prior to 2021 are applied to fund initial projects in development-related capital forecast.
- (4) Post period development-related net capital costs may be eligible for development charge funding in future DC by-laws.

9. OTHER ISSUES AND CONSIDERATIONS

A. CONSIDERATION FOR AREA RATING

In accordance with the *DCA*, Council must give consideration to the use of area rating, also known as area-specific development charges. As part of the DC Background Study, the appropriateness of implementing area-specific development charges for the various Township services was examined.

The DCA permits the Township to designate in its DC by-law, the areas where development charges shall be imposed. The charges may apply to all lands in the Township or to other designated development areas as specified in the DC by-law.

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

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

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

Based on discussions with staff, and the analysis of the delivery of services, it is proposed that the Township continue to calculate and collect DCs on a uniform, Township-wide basis. The rationale for maintaining a uniform Township-wide approach is based primarily on the fact that 10-year historical service levels can be calculated on a Township-wide basis to ensure the emplacement of a service or infrastructure in one particular area of the Township does not exceed the service level of that specific community. As well, Township-wide DCs ensure a consistent approach to financing the cost of development-related projects, from both a DC and non-DC revenue source perspective. Finally, an attempt to impose area-specific DCs to a DC regime which has imposed municipal-wide DCs for a long length of time would cause equity issues during transitions.

B. LOCAL SERVICE POLICY

The Township administers a series of local service guidelines and principles considering if the project will be completely, or in part, funded from development charges.

Local services means those services or facilities 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, required as a condition of approval under s. 51 of the Planning Act, or as a condition of approval under s. 53 of the Planning Act.

APPENDIX A

DEVELOPMENT FORECAST

RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT FORECAST

A. BACKGROUND

This appendix provides details about the development forecasts that were used in the preparation of the Development Charges Background Study for Loyalist Township. The forecast described herein is consistent with governing legislation and represents the best estimate of the amount and type of development that is likely to occur in the Township from 2021 to 2030. The results of the forecasts are provided in a series of tables.

The *Development Charges Act (the DCA)* requires the Township to estimate “the anticipated amount, type and location of development” for which development charges may be imposed. The development forecast must cover both residential and non-residential development and be specific enough with regards to the quantum, type, location and timing of development to allow the Township to prepare a reasonable development-related capital program. The development charges development forecast is based on estimates of growth occurring within the Township’s approved development areas. This is consistent with provincial regulations that require development charges forecasts to be based on development areas approved in a municipality’s Official Plan.

B. HISTORICAL GROWTH

Loyalist has experienced consistent growth over the last 10 years (see Table 1). The Township has averaged 96 units per year of housing growth and the population has increased by approximately 1,765 people from 2011 to 2020. The Township’s estimated 2020 population was approximately 17,000. The population numbers referenced throughout the Background Study are based on Census population and does not include Census undercoverage (which is estimated at 3 per cent). The population growth rate has been slightly less than the growth in households as a result of the decline in the average number of persons residing in dwelling units, a trend that is expected to continue. It is important to note that the penitentiary population, which is included in census data has been removed from our historical and forecast population for the purpose of calculating development charges for the Township.

The Township has experienced an increase employment over the last 10 years. Overall, there was an addition of 1,380 employees over the historical ten-year period. In 2020, about 4,370 people were employed in the community. The activity rate has remained steady as both population growth and employment growth have seen increases since 2012.

Employment numbers used in Table 1 are based on Statistics Canada place of work data. Place of work employment figures record where people work rather than their place of residence. The employment figures shown in this table include workers with no fixed address. However, work-at-home employment is excluded from the figures, for development charge purposes, as this type of employment does not require building floorspace for its activities.

Table 2 provides historical housing activity data from the Canadian Mortgage and Housing Corporation between 2011 and 2020. The number of housing completions by dwelling unit type and the resulting percentages are shown. This table illustrates that nearly 73% of all new recently completed housing units in the municipality are of a single and semi-detached unit type. Although, the type of dwelling units recently completed are still predominately of single and semi-detached unit form, the share of total single and semi-detached units in the municipality is shifting to more medium density unit forms (Table 3).

Occupancy levels for single and semi-detached, row and other multiple and apartment units in Loyalist are provided in Table 4. The overall average occupancy level in Loyalist was 2.43 persons per unit (PPU). For the purposes of calculating the population residing in new dwelling units over the 5-year by-law, the following PPU values were used:

- Singles/Semis 2.77
- Rows and Other Multiples 2.15
- Apartments 1.68

The chosen PPU values for single and semi-detached units and row/multiples resemble the 2006–2016 average presented in Table 4. The apartment PPU in new units used in the Development Charges Study is generally consistent with the total average occupancy levels for apartments in the Township as a result of the limited new construction data available for these unit types.

C. LOYALIST DEVELOPMENT FORECAST

Forecasts of population, housing units, employment and non-residential floor space were prepared as part of the Background Study. In this Study, a ten-year planning period from

2021-2030 has been used to calculate development charges for all services provided by the Township.

Forecasts of households, population and employment are based on the *Population, Housing and Employment Projections to 2046* report prepared by Hemson Consulting in 2019. In general, population and household growth are expected to follow recent trends in the ten-year period from 2021–2030.

i. Residential Forecast

The residential forecast is based on a forecast of households and population in the Township. The allocation of the development-related capital costs between the residential and non-residential sector, is based on forecasts of population in new housing units and employment growth. The population in new housing units was estimated based on Statistics Canada special run of data for occupancy patterns of household unit types by period of construction and recent trends.

The population and occupied household growth, in part, determines the need for additional facilities and provides the foundation for the development-related capital program. Table 5 summarizes the population and household forecast. The tables show that the Township's net population (or Census population) is forecast to increase over the ten-year forecast period by 2,000 persons, from 16,953 in 2020 to 18,948 in 2030. Further, the number of occupied households will increase by 1,230, from 6,846 in 2020 to 8,076 in 2030. Approximately 54% of all new household growth will be in the form of single and semi-detached unit types (Table 6). This pattern of housing growth would represent somewhat higher density housing than the pattern experienced in the Township over the last ten years. Such a pattern is, however, in keeping with planning policies and recent market trends aimed at increasing intensification.

In addition to the net population forecast, a forecast of “population in new households” that will result from the addition of new housing units has been identified. As shown in Table 7, population growth in new households is estimated by applying persons per unit (PPUs) values to the housing unit forecast. PPU values were 2.77 for single and semi-detached units; 2.15 for rows and other multiples; and 1.68 for apartments. The forecasted persons in newly constructed units are based upon the historical time series of population growth in housing in the last ten-year Census period (2006-2016) as released in the 2016 National Household Survey for single and semi-detached units and multiples and historical trends for apartments. In total, 3,031 is the forecasted population in new dwelling units over the ten-year planning period.

ii. Non-Residential Forecast

Non-residential development charges are calculated on a per square metre of gross floor area (GFA) basis. Therefore, as per the *DCA*, a forecast of non-residential building space has been developed. As with the residential forecast, a growth forecast from 2021 to 2030 has been developed.

Table 8 illustrates that total employment is forecast to grow by 489 employees over the ten-year forecast period from 2021 to 2030. The forecast is split between three types of employment:

- **Population Related Employment**, which is employment that primarily serves a resident population and includes retail, education, healthcare, and local government. This generally grows in line with population growth and is located on a range of commercial and community area designations.
- **Employment Land Employment**, which refers to traditional industrial-type employment primarily accommodated in low-rise industrial buildings in business parks and employment areas. This is the type of employment that would locate on designated industrial lands.
- **Other Rural Based Employment**, which refers to jobs scattered throughout the rural area, primarily related to agricultural and primary industries.

These new employees can be accommodated in about 34,220 square meters of new non-residential floor space (as shown in Table 9).

Employment densities have been used to convert the employment forecast into building space estimates. An assumed Floor Space per Worker (FSW) is applied to the new employment forecast numbers in order to estimate growth in non-residential space across the Township. The FSW assumption used herein is 55 m² per employee for population related employees and 95 m² per employee for employment land-related employees. The employment and floor space forecasts for the Township are summarized in Tables 8 and 9.

**APPENDIX A - TABLE 1
LOYALIST TOWNSHIP
HISTORICAL HOUSEHOLDS, POPULATION AND EMPLOYMENT SUMMARY**

Mid-Year	Census Population ¹	Annual Growth	Occupied Households	Annual Growth	Av. Household Size (PPU)	Place of Work Employment	Annual Growth	Activity Rate ²
2006	14,268		5,560		2.57	3,505		24.6%
2007	14,493	225	5,640	80	2.57	3,369	-136	23.2%
2008	14,721	228	5,721	81	2.57	3,238	-131	22.0%
2009	14,953	232	5,803	82	2.58	3,112	-126	20.8%
2010	15,188	235	5,886	83	2.58	2,991	-121	19.7%
2011	15,427	239	5,970	84	2.58	2,875	-116	18.6%
2012	15,574	147	6,059	89	2.57	3,098	223	19.9%
2013	15,723	149	6,150	91	2.56	3,338	240	21.2%
2014	15,873	150	6,242	92	2.54	3,597	259	22.7%
2015	16,024	151	6,335	93	2.53	3,876	279	24.2%
2016	16,177	153	6,430	95	2.52	4,175	299	25.8%
2017	16,368	191	6,529	99	2.51	4,224	49	25.8%
2018	16,561	193	6,631	102	2.50	4,273	49	25.8%
2019	16,756	195	6,737	106	2.49	4,323	50	25.8%
2020	16,953	197	6,846	110	2.48	4,373	50	25.8%
Growth 2011-2020		1,765		960			1,382	

Source: Statistics Canada, Census of Canada, Hemson estimates

Note 1: Census population excludes Census net-undercoverage (roughly 3%) and penitentiary population (equal to 794 persons)

Note 2: Place of Work excludes work at home

Note 3: Activity Rate represents the ratio between place of work employment and Census population

**APPENDIX A - TABLE 2
LOYALIST TOWNSHIP
CHMC HOUSING COMPLETIONS**

Mid-Year	Housing Completions				Housing Completions			
	Singles/Semis	Rows	Apts.	Total	Singles/Semis	Rows	Apts.	Total
2011	91	12	0	103	88%	12%	0%	100%
2012	104	27	0	131	79%	21%	0%	100%
2013	65	20	0	85	76%	24%	0%	100%
2014	78	21	0	99	79%	21%	0%	100%
2015	54	13	5	72	75%	18%	7%	100%
2016	44	28	1	73	60%	38%	1%	100%
2017	37	43	1	81	46%	53%	1%	100%
2018	56	29	1	86	65%	34%	1%	100%
2019	61	34	0	95	64%	36%	0%	100%
2020	93	24	0	117	79%	21%	0%	100%
Growth 2011-2020	683	251	8	942	73.0%	26.0%	1.0%	100%

Source: Statistics Canada, Canada Mortgage and Housing Corporation (CMHC)

APPENDIX A - TABLE 3
LOYALIST TOWNSHIP
HISTORICAL OCCUPIED HOUSEHOLDS BY UNIT TYPE

Mid-Year	Occupied Households				Shares By Unit Type			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apartments	Total
2006	4,625	345	590	5,560	83%	6%	11%	100%
2007	4,697	354	589	5,640	83%	6%	10%	100%
2008	4,770	364	588	5,722	83%	6%	10%	100%
2009	4,843	374	587	5,804	83%	6%	10%	100%
2010	4,917	384	586	5,887	84%	7%	10%	100%
2011	4,990	395	585	5,970	84%	7%	10%	100%
2012	5,052	424	580	6,056	83%	7%	10%	100%
2013	5,115	455	575	6,145	83%	7%	9%	100%
2014	5,179	488	570	6,237	83%	8%	9%	100%
2015	5,244	523	565	6,332	83%	8%	9%	100%
2016	5,310	560	560	6,430	83%	9%	9%	100%
2017	5,365	600	564	6,529	82%	9%	9%	100%
2018	5,420	643	568	6,631	82%	10%	9%	100%
2019	5,476	688	572	6,737	81%	10%	8%	100%
2020	5,533	737	576	6,846	81%	11%	8%	100%

Source: Statistics Canada, Census of Canada and Canada Mortgage and Housing Corporation (CMHC), Housing Market Information

**APPENDIX A - TABLE 4
LOYALIST TOWNSHIP
HISTORICAL HOUSEHOLDS BY PERIOD OF CONSTRUCTION SHOWING HOUSEHOLD SIZE**

	Period of Construction												Total
	Pre 1945	1946-1960	1961-1970	1971-1980	1981-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2016	Pre 2006	2006-2016	
<i>Singles/Semis</i>													
Household Population	1,660	1,685	1,785	2,170	1,200	750	680	1,060	1,125	1,270	10,990	2,395	13,385
Households	690	710	775	880	455	260	285	400	415	450	4,455	865	5,320
Household Size	2.41	2.37	2.30	2.47	2.64	2.88	2.39	2.65	2.71	2.82	2.47	2.77	2.52
<i>Rows</i>													
Household Population	0	65	255	410	120	55	100	60	80	200	1,065	280	1,345
Households	0	30	115	140	55	35	35	35	35	95	445	130	575
Household Size	-	2.17	2.22	2.93	2.18	1.57	2.86	1.71	2.29	2.11	2.39	2.15	2.34
<i>Apartments</i>													
Household Population	70	145	235	310	95	50	0	0	0	0	905	0	905
Households	55	100	115	190	65	15	0	0	0	0	540	0	540
Household Size	1.27	1.45	2.04	1.63	1.46	3.33	-	-	-	-	1.68	-	1.68
<i>All Units</i>													
Household Population	1,730	1,895	2,275	2,890	1,415	855	780	1,120	1,205	1,470	12,960	2,675	15,635
Households	745	840	1,005	1,210	575	310	320	435	450	545	5,440	995	6,435
Household Size	2.32	2.26	2.26	2.39	2.46	2.76	2.44	2.57	2.68	2.70	2.38	2.69	2.43

Source: Statistics Canada, 2016 National Household Survey Special Run

**APPENDIX A - TABLE 5
LOYALIST TOWNSHIP
HOUSEHOLDS, POPULATION AND EMPLOYMENT FORECAST SUMMARY**

Mid-Year	Census Population ¹	Annual Growth	Total Occupied Households	Annual Growth	Av. Household Size (PPU)	Place of Work Employment	Annual Growth	Activity Rate ²
2016	16,177	153	6,430	95	2.52	4,175	299	25.8%
2017	16,368	191	6,529	99	2.51	4,224	49	25.8%
2018	16,561	193	6,631	102	2.50	4,273	49	25.8%
2019	16,756	195	6,737	106	2.49	4,323	50	25.8%
2020	16,953	197	6,846	110	2.48	4,373	50	25.8%
2021	17,153	200	6,960	114	2.46	4,424	51	25.8%
2022	17,355	202	7,075	115	2.45	4,472	48	25.8%
2023	17,559	204	7,193	118	2.44	4,521	49	25.7%
2024	17,766	207	7,315	122	2.43	4,571	50	25.7%
2025	17,975	209	7,440	126	2.42	4,621	50	25.7%
2026	18,187	212	7,570	130	2.40	4,672	51	25.7%
2027	18,375	188	7,692	122	2.39	4,719	47	25.7%
2028	18,564	189	7,817	125	2.37	4,766	47	25.7%
2029	18,755	191	7,944	128	2.36	4,814	48	25.7%
2030	18,948	193	8,076	131	2.35	4,862	48	25.7%
Growth 2021-2030		1,995		1,229			489	

Source: Employment, Population & Household Projections based on the 2019 Loyalist Township Report Population, Household and Employment Projections to 2046

Note 1: Census population excludes Census net-undercoverage (roughly 3%) and penitentiary population (equal to 794 persons)

Note 2: Activity Rate represents the ratio between place of work employment and Census population

APPENDIX A - TABLE 6
LOYALIST TOWNSHIP
FORECAST OF ANNUAL GROWTH IN OCCUPIED HOUSEHOLDS BY UNIT TYPE

Year	Annual Growth in Occupied Households				Shares By Unit Type			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apartments	Total
2017	55	40	4	99	56%	40%	4%	100%
2018	55	43	4	102	54%	42%	4%	100%
2019	56	46	4	106	53%	43%	4%	100%
2020	57	49	4	110	52%	45%	4%	100%
2021	57	53	4	114	50%	46%	4%	100%
2022	63	46	6	115	55%	40%	5%	100%
2023	63	49	6	118	54%	41%	5%	100%
2024	64	52	6	122	53%	43%	5%	100%
2025	65	55	6	126	52%	44%	5%	100%
2026	65	58	6	130	50%	45%	5%	100%
2027	70	48	4	122	58%	39%	3%	100%
2028	71	50	4	125	57%	40%	3%	100%
2029	72	52	4	128	56%	41%	3%	100%
2030	73	54	4	131	56%	41%	3%	100%
Growth 2021-2030	663	516	50	1,229	54%	42%	4%	100%

Source: Hemson Consulting Ltd.

**APPENDIX A - TABLE 7
LOYALIST TOWNSHIP
FORECAST POPULATION IN NEW HOUSEHOLDS BY UNIT TYPE**

Mid-Year	Forecast of Population in New Households			
	Singles/Semis	Rows	Apartments	Total
2016	0	0	0	0
2017	152	86	7	244
2018	154	92	7	252
2019	155	98	7	260
2020	157	105	7	269
2021	158	113	7	278
2022	173	99	10	283
2023	175	105	10	291
2024	177	111	10	299
2025	179	118	10	307
2026	181	125	10	316
2027	195	102	7	304
2028	197	107	7	310
2029	199	112	7	318
2030	202	117	7	325
Growth 2021-2030	1,838	1,109	84	3,031
Based on PPU's of	2.77	2.15	1.68	

APPENDIX A - TABLE 8
LOYALIST TOWNSHIP
NON-RESIDENTIAL EMPLOYMENT BY TYPE

Mid-Year	Population Related	Employment Land	Other Rural Based	Total for DC Study	Work at Home	Total Employment
2016	2,443	1,395	338	4,175	525	4,700
2017	2,465	1,418	341	4,224	531	4,755
2018	2,486	1,442	345	4,273	538	4,811
2019	2,509	1,466	349	4,323	544	4,867
2020	2,531	1,490	353	4,373	550	4,923
2021	2,553	1,514	356	4,424	556	4,980
2022	2,575	1,537	360	4,472	563	5,035
2023	2,597	1,560	364	4,521	569	5,090
2024	2,619	1,584	368	4,571	575	5,146
2025	2,641	1,608	372	4,621	581	5,202
2026	2,664	1,633	375	4,672	588	5,260
2027	2,685	1,655	379	4,719	594	5,313
2028	2,705	1,678	383	4,766	600	5,366
2029	2,727	1,701	386	4,814	606	5,420
2030	2,748	1,724	390	4,862	612	5,474
<i>Growth 2021-2030</i>	217	234	37	489		

APPENDIX A - TABLE 9
LOYALIST TOWNSHIP
NON-RESIDENTIAL FLOOR SPACE BY TYPE

Average Sq.m Population Related Employee	55
Average Sq.m Employment-Land Employee	95
Average Sq.m Rural Based Employee	-

Mid-Year	Population Related	Employment Land	Other Rural Based	Total New Space (sq.m)
2021	1,240	2,310	0	3,550
2022	1,180	2,199	0	3,379
2023	1,198	2,232	0	3,429
2024	1,222	2,277	0	3,499
2025	1,222	2,277	0	3,499
2026	1,258	2,343	0	3,601
2027	1,138	2,120	0	3,258
2028	1,149	2,141	0	3,289
2029	1,173	2,186	0	3,359
2030	1,173	2,186	0	3,359
<i>Growth 2021-2030</i>	11,953	22,270	0	34,224

Note: Numbers may not add precisely due to rounding

APPENDIX B

TOWNSHIP-WIDE SERVICES

TECHNICAL APPENDIX

DEVELOPMENT CHARGES CALCULATIONS

TECHNICAL APPENDIX INTRODUCTION AND OVERVIEW

This appendix provides the detailed analysis undertaken to establish the development charges rates for each of the services in Loyalist Township. The appendix has one section for each of the following services:

Sub-Section	Service
Appendix B.1	Emergency Services
Appendix B.2	Parks & Recreation
Appendix B.3	Development-Related Studies

Every sub-section contains a set of three tables, with the exception of Development-Related Studies. The tables provide the background data and analysis undertaken to arrive at the calculated development charge rates for that particular service. An overview of the content and purpose of each of the tables is provided below.

TABLE 1 HISTORICAL SERVICE LEVELS

Table 1 presents the data used to determine the ten-year historical service level. The *Development Charges Act (DCA)* and *Ontario Regulation 82/98* require that development charges be set at a level no higher than the average service level provided in the municipality over the ten-year period immediately preceding the preparation of the background study, on a service by service basis. For the purpose of this study, the historical inventory period is defined as 2011 to 2020.

O. Reg. 82/98 requires that, when defining and determining historical service levels, both the quantity and quality of service be taken into consideration. In most cases, the service levels are initially established in quantitative terms. For example, service levels for buildings are presented in terms of square feet per unit. The qualitative aspect is introduced by considering the monetary value of the facility or service. In the case of buildings, for example, the cost would be shown in terms of cost per square foot to replace or construct a facility of the same quality. This approach helps to ensure that the development-related capital facilities that are to be funded by new development reflect not only the quantity (number and size), but also the quality (value or cost) of service provided by the Township in the past. Both the quantitative and qualitative aspects of service levels used in the

current analysis are based on information provided by Township staff. This information is generally based on historical records and experience with costs to acquire or construct similar facilities, equipment and infrastructure.

The final page of Table 1 shows the calculation of the “maximum allowable funding envelope”. The maximum allowable funding envelope is defined as the ten-year historical service level (expressed as either \$/capita or \$/capita and employment) multiplied by the forecast increase in net population or net population and employment over the planning period. The resulting figure is the value of capital infrastructure that would have to be constructed for that particular service so that the ten-year historic service level is maintained.

**TABLE 2 2021-2030 DEVELOPMENT RELATED CAPITAL PROGRAM
AND CALCULATION OF THE “UNADJUSTED”
DEVELOPMENT CHARGES**

The *DCA* requires the Council of the Township to express its intent to provide future capital facilities at the level incorporated in the development charges calculation. Based on the development forecasts presented in Appendix A, Township staff in collaboration with the consultant has prepared a development-related capital forecast which sets out those projects that are required to service anticipated development for the ten-year period from 2021 to 2030. The development-related capital programs for each service are shown in Table 2 of each sub-section and Table 1 for Development-Related Studies.

To determine the share of the program that is eligible for recovery through development charges, the gross project costs are reduced by any anticipated grants, subsidies or other recoveries, and “benefit to existing” shares for all capital costs.

A benefit to existing share represents the portion of a capital project that will benefit the existing community. It could, for example, represent a portion of a new facility that will, at least in part, replace a facility that is demolished, redeployed or will otherwise not be available to serve its former function (a “replacement” share). The benefit to existing share of the capital program is not deemed to be development-related and is therefore removed from the development charge calculation. The capital cost for benefit to existing shares will require funding from non-development charge sources, typically property taxes or user fees.

The capital program, less any replacement shares or benefit to existing shares, yields the development-related costs. Although deemed development-related, not all of the net development-related capital program may be recoverable from development charges in the

period from 2021 to 2030. For some services, existing development charge reserve funds may be available to fund a share of the program.

Additionally, for some services, a portion of the capital program will service development that will not occur until after 2030. This portion of the capital program is deemed “pre-built” service capacity and is considered as committed excess capacity to be recovered under future development charges, or is a service level increase.

The remaining portion of the net capital program represents the development-related cost that may be included in the development charge calculation. In all cases this amount is equal to or less than the maximum allowable funding envelope that is calculated on the final page of Table 1. The result is the discounted development-related net capital costs eligible for recovery against growth over the forecast period from 2021 to 2030.

Calculation of the Unadjusted Development Charges Rates

The section below the capital program displays the calculation of the unadjusted development charges rates. The term “unadjusted” development charges is used to distinguish the charge that is calculated prior to cash flow financing consideration. The cash flow analysis is shown in Table 3.

The first step when determining the unadjusted development charges rates is to allocate the development-related net capital costs between the residential and the non-residential sectors. For all services, except Parks & Recreation, the development-related costs have been determined to be 80 per cent residential and 20 per cent non-residential. This ratio is based on projected changes in population and employment in new non-residential space over the planning period, anticipated demand for services, and other considerations.

The development-related costs associated with Parks & Recreation has been allocated 100 per cent to the residential sector, as the need for this service is driven by residential development.

The residential development-related costs are then divided by the forecast population growth in new dwelling units. This gives the unadjusted residential development charge per capita. The non-residential growth-related costs are divided by the forecast increase in non-residential gross floor area (GFA). This yields a charge per square metre of new non-residential GFA.

TABLE 3 CASH FLOW ANALYSIS

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

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

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per square metre (of GFA) non-residential development charges.

APPENDIX B.1

EMERGENCY SERVICES

EMERGENCY SERVICES

Loyalist Emergency Services is responsible for the provision of fire suppression and rescue, prevention, public education, administration, communications, training and emergency management. The Department maintains four fire stations and various training facilities located within the Township.

TABLE 1 HISTORICAL SERVICE LEVELS

The Table 1 displays the Emergency Services ten-year historical inventory for buildings, land, materials, and furniture and equipment. The newest fire station in Loyalist Township, the Amherstview Fire Station, replaced an existing station and was oversized in part to service the increase in need arising from development over the 2021-2030 planning period. Council expressed its intent to fund the oversizing from development charges. To comply with the *DCA*, the oversized portion of the facility has been removed from the historical inventory of capital assets. In this way, none of the maximum allowable funding envelope to be used to pay for the oversizing will have been created by the oversizing. The capital costs related to the oversizing are represented by recovery of the remaining cost for the facility which has been included in the 2021-2030 development-related capital program.

The Emergency Services inventory of capital assets includes four fire stations and four fire support buildings including three training centres, a burn room and a training shed. These building are valued at approximately \$8.50 million and occupy roughly 7.4 hectares of land which is valued at about \$1.29 million. The 25 vehicles associated with the fire stations in Loyalist Township have a replacement value of \$7.78 million. Personal firefighting equipment, communications equipment, breathing apparatuses and other station and vehicle equipment add another \$1.52 million to the inventory.

The current value of the total Emergency Services capital infrastructure including buildings, land, vehicles, furniture and equipment is valued at approximately \$19.08 million and has provided Loyalist with a ten-year average historical service level of \$902.26 per capita and employment. This, when multiplied by the net population and employment growth (2,484) from 2021-2030, results in a calculated maximum allowable funding envelope of \$2.24 million.

**TABLE 2 2021-2030 DEVELOPMENT-RELATED CAPITAL PROGRAM
& CALCULATION OF THE “UNADJUSTED” DEVELOPMENT
CHARGES**

The 2021 to 2030 development-related capital program recovers for outstanding debenture payments (\$648,000) associated with the construction of the Amherstview Fire Station. It is important to note that only a portion of the debenture payments have been included in the Emergency Services capital program to reflect that a share of the payments relate to the replacement of the decommissioned station. Therefore, the debenture payments included in the capital program only reflects the development charge eligible related component. Only the principle portions of the debenture payments have been identified in the program; interest costs have been included in the cash flow calculations (Table 3).

In addition to recovering for the costs related to the new fire station, the Township has identified a provision for an internal loan payback for an aerial fire vehicle at a cost of \$526,000. The Township will be expanding the Odessa Station at a cost of \$2.0 million and adding additional extrication equipment at \$40,000. The Township also intends to undertake a Fire Master Plan in 2021 for \$5,000.

Altogether, the ten-year capital forecast for Emergency Services amounts to \$3.22 million. As a share of the costs associated with the expansion of the Odessa Station is largely related to the existing space and therefore a replacement share equal to 75% (or \$1.50 million) is considered to be funded from non-DC sources and netted off of the development charges calculation. The remaining \$1.72 million is related to development occurring between 2021 and 2030 and is included in the development charge calculation.

The development-related cost is allocated 80 per cent, or \$1.37 million, against new residential development, and 20 per cent, or \$343,300, against non-residential development. This yields an unadjusted development charge of \$453.13 per capita and \$10.03 per square metre.

TABLE 3 CASH FLOW ANALYSIS

After cash flow consideration, the residential calculated charge increases to \$493.05 per capita and the non-residential charge increases to \$10.85 per square metre.

The following table summarizes the Emergency Services development charge.

EMERGENCY SERVICES SUMMARY						
10-year Hist. Service Level per capita	2021-2030		Unadjusted		Adjusted	
	Growth-Related Capital Program		Development Charge		Development Charge	
	Total	Net DC Recoverable	\$/capita	\$/Square Metre	\$/capita	\$/Square Metre
\$902.26	\$3,219,172	\$1,716,672	\$453.13	\$10.03	\$493.05	\$10.85

**APPENDIX B.1
TABLE 1**

**LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
EMERGENCY SERVICES**

BUILDINGS Name	# of Square Feet										UNIT COST (\$/sq. ft.)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Odessa Station	10,415	10,415	10,415	10,415	10,415	10,415	10,415	10,415	10,415	10,415	\$230
Amherstview Station	4,196	-	-	-	-	-	-	-	-	-	\$310
Amherstview Fire Station	-	9,785	9,785	9,785	9,785	9,785	9,785	9,785	9,785	9,785	\$310
<i>Amherst Fire Station - Committed Excess Capacity</i>	<i>-</i>	<i>(2,090)</i>	<i>(2,090)</i>	<i>(2,090)</i>	<i>(2,090)</i>	<i>(2,090)</i>	<i>(2,090)</i>	<i>(2,090)</i>	<i>(2,090)</i>	<i>(2,090)</i>	<i>\$310</i>
Amherst Island Station	2,400	2,400	2,400	2,400	2,400	2,400	2,400	4,046	4,046	4,046	\$230
Bath Station	8,591	8,591	8,591	8,591	8,591	8,591	8,591	8,591	8,591	8,591	\$230
Fire Training Facility	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	\$135
	# of Buildings										(\$/building)
Training Tower	2	2	2	2	2	2	2	2	2	2	\$255,000
Burn Room	1	1	1	1	1	1	1	1	1	1	\$75,000
Fire Training Storage Shed	1	1	1	1	1	1	1	1	1	1	\$21,000
Total (sq.ft.)	27,102	30,601	30,601	30,601	30,601	30,601	30,601	32,247	32,247	32,247	
Total (\$000)	\$7,032.6	\$8,117.5	\$8,117.5	\$8,117.5	\$8,117.5	\$8,117.5	\$8,117.5	\$8,496.1	\$8,496.1	\$8,496.1	

LAND Name	# of Hectares										UNIT COST (\$/ha)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Amherst Island Station	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	\$175,000
Bath Station	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	\$175,000
Amherstview Fire Station	-	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	\$175,000
Fire Training Facility	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	\$175,000
Training Tower	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	\$175,000
Burn Room	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	\$175,000
Test Tower & Burn Room Site	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	\$175,000
Odessa Firehall Station	0.39	0.39	0.39	0.39	0.39	0.39	0.89	0.89	0.89	0.89	\$175,000
Amherstview Firehall Station	0.33	-	-	-	-	-	-	-	-	-	\$175,000
Total Land (ha)	5.4	6.9	6.9	6.9	6.9	6.9	7.4	7.4	7.4	7.4	
Total (\$000)	\$951.1	\$1,200.5	\$1,200.5	\$1,200.5	\$1,200.5	\$1,200.5	\$1,288.0	\$1,288.0	\$1,288.0	\$1,288.0	

**APPENDIX B.1
TABLE 1**

**LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
EMERGENCY SERVICES**

VEHICLES	# of Vehicles										UNIT COST (\$/vehicle)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Heavy Rescue Units	2	2	2	2	2	2	2	2	2	2	\$345,000
Light Rescue Units	2	2	2	2	2	2	1	1	1	1	\$215,000
Utility Truck	1	1	1	1	1	1	1	1	1	1	\$50,000
Fire Prevention Vehicle	1	1	1	1	1	1	1	1	1	1	\$40,000
Bush Truck 3/4 Tonne	1	1	1	1	1	1	1	1	1	1	\$85,000
Other Pick up Trucks	2	2	2	2	2	2	3	4	5	5	\$40,000
Fire Chief Vehicle	1	1	1	1	1	1	1	1	1	1	\$40,000
Custom Pumpers	3	3	5	5	5	5	5	5	5	5	\$575,000
Conventional Pumpers	2	2	2	2	2	2	2	3	2	2	\$520,000
Aerial Truck	-	-	-	-	-	-	-	1	1	1	\$1,100,000
<i>Aerial Truck - Committed Excess Capacity</i>	-	-	-	-	-	-	-	1	1	1	<i>(\$526,423)</i>
Tankers	4	4	4	4	4	4	4	4	4	4	\$485,000
UTV	-	-	-	-	-	-	1	1	1	1	\$29,000
Total (#)	19	19	21	21	21	21	22	25	25	25	
Total (\$000)	\$6,120.0	\$6,120.0	\$7,270.0	\$7,270.0	\$7,270.0	\$7,270.0	\$7,124.0	\$8,257.6	\$7,777.6	\$7,777.6	

FURNITURE & EQUIPMENT (\$)	Total Value of Furniture and Equipment									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Breathing Apparatus	\$422,000	\$422,000	\$422,000	\$422,000	\$422,000	\$422,000	\$422,000	\$435,000	\$435,000	\$435,000
Personal Fire Fighter Equipment	\$236,000	\$241,000	\$241,000	\$276,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Communications Equipment	\$261,000	\$284,000	\$285,000	\$287,000	\$287,000	\$287,000	\$287,000	\$287,000	\$287,000	\$287,000
Vehicle Equipment	\$373,000	\$373,000	\$402,000	\$414,000	\$459,000	\$459,000	\$459,000	\$459,000	\$459,000	\$459,000
Defibrillator	\$31,000	\$31,000	\$34,000	\$38,000	\$33,000	\$33,000	\$33,000	\$33,000	\$37,000	\$37,000
Total (\$000)	\$1,323.0	\$1,351.0	\$1,384.0	\$1,437.0	\$1,501.0	\$1,501.0	\$1,501.0	\$1,514.0	\$1,518.0	\$1,518.0

**APPENDIX B.1
TABLE 1**

**LOYALIST TOWNSHIP
CALCULATION OF SERVICE LEVELS
EMERGENCY SERVICES**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Historical Population	15,427	15,574	15,723	15,873	16,024	16,177	16,368	16,561	16,756	16,953
Historical Employment	2,875	3,098	3,338	3,597	3,876	4,175	4,224	4,273	4,323	4,373
Total	18,302	18,672	19,061	19,470	19,900	20,352	20,592	20,834	21,079	21,326

INVENTORY SUMMARY (\$000)

Buildings	\$7,032.6	\$8,117.5	\$8,117.5	\$8,117.5	\$8,117.5	\$8,117.5	\$8,117.5	\$8,496.1	\$8,496.1	\$8,496.1
Land	\$951.1	\$1,200.5	\$1,200.5	\$1,200.5	\$1,200.5	\$1,200.5	\$1,288.0	\$1,288.0	\$1,288.0	\$1,288.0
Vehicles	\$6,120.0	\$6,120.0	\$7,270.0	\$7,270.0	\$7,270.0	\$7,270.0	\$7,124.0	\$8,257.6	\$7,777.6	\$7,777.6
Furniture and Equipment	\$1,323.0	\$1,351.0	\$1,384.0	\$1,437.0	\$1,501.0	\$1,501.0	\$1,501.0	\$1,514.0	\$1,518.0	\$1,518.0
Total (\$000)	\$15,426.8	\$16,789.0	\$17,972.0	\$18,025.0	\$18,089.0	\$18,089.0	\$18,030.5	\$19,555.6	\$19,079.6	\$19,079.6

SERVICE LEVEL (\$/pop & emp)

											Average Service Level
Buildings	\$384.26	\$434.74	\$425.87	\$416.92	\$407.91	\$398.85	\$394.21	\$407.80	\$403.06	\$398.39	\$407.20
Land	\$51.97	\$64.29	\$62.98	\$61.66	\$60.33	\$58.99	\$62.55	\$61.82	\$61.10	\$60.40	\$60.61
Vehicles	\$334.39	\$327.76	\$381.41	\$373.39	\$365.33	\$357.21	\$345.96	\$396.35	\$368.97	\$364.70	\$361.55
Furniture and Equipment	\$72.29	\$72.35	\$72.61	\$73.81	\$75.43	\$73.75	\$72.89	\$72.67	\$72.01	\$71.18	\$72.90
Total (\$/capita and employment)	\$842.90	\$899.15	\$942.87	\$925.78	\$908.99	\$888.81	\$875.61	\$938.64	\$905.15	\$894.67	\$902.26

**LOYALIST TOWNSHIP
CALCULATION OF MAXIMUM ALLOWABLE
EMERGENCY SERVICES**

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2011 - 2020	\$902.26
Net Population and Employment Growth 2021 - 2030	2,484
Maximum Allowable Funding Envelope	\$2,241,214

APPENDIX B.1
TABLE 2

LOYALIST TOWNSHIP
DEVELOPMENT-RELATED CAPITAL PROGRAM
EMERGENCY SERVICES

Service	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs	Total DC Eligible Costs	DC Eligible Cost		
						Replacement and BTE Share		Prior Growth	2021- 2030	Other Dev. Related
1.0 EMERGENCY SERVICES										
1.1 Recovery of Completed Projects - Station (1)										
1.1.1	Amherstview Fire Station - Debt Repayment Principal (pre-2021)	2021	\$ 49,997	\$ -	\$ 49,997	\$ -	\$ 49,997	\$ -	\$ 49,997	\$ -
1.1.2	Amherstview Fire Station - Debt Repayment Principal	2021	\$ 75,255	\$ -	\$ 75,255	\$ -	\$ 75,255	\$ -	\$ 75,255	\$ -
1.1.3	Amherstview Fire Station - Debt Repayment Principal	2022	\$ 77,136	\$ -	\$ 77,136	\$ -	\$ 77,136	\$ -	\$ 77,136	\$ -
1.1.4	Amherstview Fire Station - Debt Repayment Principal	2023	\$ 79,064	\$ -	\$ 79,064	\$ -	\$ 79,064	\$ -	\$ 79,064	\$ -
1.1.5	Amherstview Fire Station - Debt Repayment Principal	2024	\$ 81,041	\$ -	\$ 81,041	\$ -	\$ 81,041	\$ -	\$ 81,041	\$ -
1.1.6	Amherstview Fire Station - Debt Repayment Principal	2025	\$ 83,067	\$ -	\$ 83,067	\$ -	\$ 83,067	\$ -	\$ 83,067	\$ -
1.1.7	Amherstview Fire Station - Debt Repayment Principal	2026	\$ 85,144	\$ -	\$ 85,144	\$ -	\$ 85,144	\$ -	\$ 85,144	\$ -
1.1.8	Amherstview Fire Station - Debt Repayment Principal	2027	\$ 87,272	\$ -	\$ 87,272	\$ -	\$ 87,272	\$ -	\$ 87,272	\$ -
1.1.9	Amherstview Fire Station - Debt Repayment Principal	2028	\$ 29,773	\$ -	\$ 29,773	\$ -	\$ 29,773	\$ -	\$ 29,773	\$ -
	Subtotal Recovery of Completed Projects - Station (1)		\$ 647,749	\$ -	\$ 647,749	\$ -	\$ 647,749	\$ -	\$ 647,749	\$ -
1.2 Recovery of Completed Projects - Vehicles (1)										
1.2.1	Aerial - Internal Loan Payback - Principal Share	2021	\$ 48,076	\$ -	\$ 48,076	\$ -	\$ 48,076	\$ -	\$ 48,076	\$ -
1.2.2	Aerial - Internal Loan Payback - Principal Share	2022	\$ 49,038	\$ -	\$ 49,038	\$ -	\$ 49,038	\$ -	\$ 49,038	\$ -
1.2.3	Aerial - Internal Loan Payback - Principal Share	2023	\$ 50,019	\$ -	\$ 50,019	\$ -	\$ 50,019	\$ -	\$ 50,019	\$ -
1.2.4	Aerial - Internal Loan Payback - Principal Share	2024	\$ 51,019	\$ -	\$ 51,019	\$ -	\$ 51,019	\$ -	\$ 51,019	\$ -
1.2.5	Aerial - Internal Loan Payback - Principal Share	2025	\$ 52,039	\$ -	\$ 52,039	\$ -	\$ 52,039	\$ -	\$ 52,039	\$ -
1.2.6	Aerial - Internal Loan Payback - Principal Share	2026	\$ 53,080	\$ -	\$ 53,080	\$ -	\$ 53,080	\$ -	\$ 53,080	\$ -
1.2.7	Aerial - Internal Loan Payback - Principal Share	2027	\$ 54,142	\$ -	\$ 54,142	\$ -	\$ 54,142	\$ -	\$ 54,142	\$ -
1.2.8	Aerial - Internal Loan Payback - Principal Share	2028	\$ 55,225	\$ -	\$ 55,225	\$ -	\$ 55,225	\$ -	\$ 55,225	\$ -
1.2.9	Aerial - Internal Loan Payback - Principal Share	2029	\$ 56,329	\$ -	\$ 56,329	\$ -	\$ 56,329	\$ -	\$ 56,329	\$ -
1.2.10	Aerial - Internal Loan Payback - Principal Share	2030	\$ 57,456	\$ -	\$ 57,456	\$ -	\$ 57,456	\$ -	\$ 57,456	\$ -
	Subtotal Recovery of Completed Projects - Vehicles (1)		\$ 526,423	\$ -	\$ 526,423	\$ -	\$ 526,423	\$ -	\$ 526,423	\$ -
1.3 Buildings, Land & Furnishings and Equipment										
1.3.1	Expansion of Odessa Station	2022	\$ 2,000,000	\$ -	\$ 2,000,000	\$ 1,500,000	\$ 500,000	\$ -	\$ 500,000	\$ -
1.3.2	Extrication Equipment	2022	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -
	Subtotal Buildings, Land & Furnishings and Equipment		\$ 2,040,000	\$ -	\$ 2,040,000	\$ 1,500,000	\$ 540,000	\$ -	\$ 540,000	\$ -
1.4 Studies										
1.4.1	Fire Master Plan	2021	\$ 5,000	\$ -	\$ 5,000	\$ 2,500	\$ 2,500	\$ -	\$ 2,500	\$ -
	Subtotal Studies		\$ 5,000	\$ -	\$ 5,000	\$ 2,500	\$ 2,500	\$ -	\$ 2,500	\$ -
TOTAL EMERGENCY SERVICES			\$ 3,219,172	\$ -	\$ 3,219,172	\$ 1,502,500	\$ 1,716,672	\$ -	\$ 1,716,672	\$ -

Note 1: The Debt payments and internal loan only reflect the DC eligible related component of the total debenture. Interest charges are included in the cash flow

Residential Development Charge Calculation		
Residential Share of 2021-2030 DC Eligible Costs	80%	\$1,373,337
10-Year Growth in Population in New Units		3,031
Unadjusted Development Charge Per Capita (\$)		\$453.13
Non-Residential Development Charge Calculation		
Non-Residential Share of 2021-2030 DC Eligible Costs	20%	\$343,334
10-Year Growth in Square Metres		34,224
Unadjusted Development Charge Per Square Metre		\$10.03

2021 - 2030 Net Funding Envelope	\$2,241,214
Uncommitted Reserve Fund Balance	
Balance as at December 31, 2020	\$0

APPENDIX B.1

TABLE 3

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
EMERGENCY SERVICES
RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

EMERGENCY SERVICES	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	(\$24.0)	(\$453.8)	(\$448.0)	(\$434.5)	(\$412.4)	(\$380.8)	(\$351.3)	(\$264.1)	(\$139.6)	
2021 - 2030 RESIDENTIAL FUNDING REQUIREMENTS											
- Emergency Services: Non-Inflated (Excluding Principal Payments)	\$2.0	\$432.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$434.0
- Emergency Services: Amherstview Station Debt	\$100.2	\$61.7	\$63.3	\$64.8	\$66.5	\$68.1	\$69.8	\$23.8	\$0.0	\$0.0	\$518.2
- Emergency Services: Aerial Truck - Internal Loan Payback	\$38.5	\$39.2	\$40.0	\$40.8	\$41.6	\$42.5	\$43.3	\$44.2	\$45.1	\$46.0	\$421.1
- Emergency Services: Inflated	\$140.66	\$541.6	\$103.3	\$105.6	\$108.1	\$110.6	\$113.1	\$68.0	\$45.1	\$46.0	\$1,382.0
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	278	283	291	299	307	316	304	310	318	325	3,031
REVENUE											
- DC Receipts: Inflated	\$137.1	\$142.2	\$149.0	\$156.3	\$164.1	\$172.2	\$168.5	\$175.9	\$183.5	\$191.6	\$1,640.5
INTEREST											
- Interest on Opening Balance	\$0.0	(\$1.3)	(\$25.0)	(\$24.6)	(\$23.9)	(\$22.7)	(\$20.9)	(\$19.3)	(\$14.5)	(\$7.7)	(\$160.0)
- Interest on Amherstview Station	(\$12.0)	(\$10.4)	(\$8.9)	(\$7.3)	(\$5.7)	(\$4.0)	(\$2.3)	(\$0.6)	\$0.0	\$0.0	(\$51.3)
- Interest on Aerial Truck - Internal Loan Payback	(\$8.4)	(\$7.7)	(\$6.9)	(\$6.1)	(\$5.3)	(\$4.4)	(\$3.6)	(\$2.7)	(\$1.8)	(\$0.9)	(\$47.7)
- Interest on In-year Transactions	(\$0.1)	(\$11.0)	\$0.8	\$0.9	\$1.0	\$1.1	\$1.0	\$1.9	\$2.4	\$2.5	\$0.5
TOTAL REVENUE	\$116.6	\$111.8	\$109.1	\$119.2	\$130.2	\$142.2	\$142.6	\$155.1	\$169.6	\$185.6	\$1,382.0
CLOSING CASH BALANCE	(\$24.0)	(\$453.8)	(\$448.0)	(\$434.5)	(\$412.4)	(\$380.8)	(\$351.3)	(\$264.1)	(\$139.6)	\$0.0	

2021 Adjusted Charge Per Capita

\$493.05

Allocation of Capital Program

Residential Sector 80.0%
Non-Residential Sector 20.0%

Rates for 2021

Inflation Rate 2.0%
Interest Rate on Positive Balances 3.5%
Interest Rate on Negative Balances 5.5%

APPENDIX B.1

TABLE 3

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
EMERGENCY SERVICES
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

EMERGENCY SERVICES	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	(\$1.7)	(\$107.0)	(\$103.7)	(\$98.6)	(\$92.5)	(\$83.9)	(\$78.3)	(\$59.0)	(\$30.7)	
2021 - 2030 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Emergency Services: Non-Inflated (Excluding Principal Payments)	\$0.5	\$108.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$108.5
- Emergency Services: Amherstview Station Debt	\$25.1	\$15.4	\$15.8	\$16.2	\$16.6	\$17.0	\$17.5	\$6.0	\$0.0	\$0.0	\$129.5
- Emergency Services: Aerial Truck - Internal Loan Payback	\$9.6	\$9.8	\$10.0	\$10.2	\$10.4	\$10.6	\$10.8	\$11.0	\$11.3	\$11.5	\$105.3
- Emergency Services: Inflated	\$35.17	\$135.4	\$25.8	\$26.4	\$27.0	\$27.6	\$28.3	\$17.0	\$11.3	\$11.5	\$345.5
NEW NON-RESIDENTIAL DEVELOPMENT											
- Growth in Square Metres	3,550	3,379	3,429	3,499	3,499	3,601	3,258	3,289	3,359	3,359	34,224
REVENUE											
- DC Receipts: Inflated	\$38.5	\$37.4	\$38.7	\$40.3	\$41.1	\$43.1	\$39.8	\$41.0	\$42.7	\$43.6	\$406.2
INTEREST											
- Interest on Opening Balance	\$0.0	(\$0.1)	(\$5.9)	(\$5.7)	(\$5.4)	(\$5.1)	(\$4.6)	(\$4.3)	(\$3.2)	(\$1.7)	(\$36.0)
- Interest on Amherstview Station	(\$3.0)	(\$2.6)	(\$2.2)	(\$1.8)	(\$1.4)	(\$1.0)	(\$0.6)	(\$0.1)	\$0.0	\$0.0	(\$12.8)
- Interest on Aerial Truck - Internal Loan Payback	(\$2.1)	(\$1.9)	(\$1.7)	(\$1.5)	(\$1.3)	(\$1.1)	(\$0.9)	(\$0.7)	(\$0.5)	(\$0.2)	(\$11.9)
- Interest on In-year Transactions	\$0.1	(\$2.7)	\$0.2	\$0.2	\$0.2	\$0.3	\$0.2	\$0.4	\$0.6	\$0.6	\$0.1
TOTAL REVENUE	\$33.5	\$30.1	\$29.1	\$31.5	\$33.2	\$36.2	\$33.9	\$36.3	\$39.6	\$42.2	\$345.5
CLOSING CASH BALANCE	(\$1.7)	(\$107.0)	(\$103.7)	(\$98.6)	(\$92.5)	(\$83.9)	(\$78.3)	(\$59.0)	(\$30.7)	(\$0.0)	

2021 Adjusted Charge Per Square Metre **\$10.85**

Allocation of Capital Program

Residential Sector 80.0%
Non-Residential Sector 20.0%

Rates for 2021

Inflation Rate 2.0%
Interest Rate on Positive Balances 3.5%
Interest Rate on Negative Balances 5.5%

APPENDIX B.2

PARKS & RECREATION

PARKS & RECREATION

Loyalist Township Recreation Services Division manages a variety of facilities, programs, services and special events for all ages. The Division oversees the activities associated with the W.J Henderson Recreation Centre, Amherstview Community Hall/Leisure & Activity Centre, and Wilton Hall. The Township is also responsible for various park facilities including sport fields, tennis and basketball courts, an outdoor rink, and 60 hectares of parkland.

TABLE 1 HISTORICAL SERVICE LEVELS

The ten-year historical inventory of capital assets for Parks & Recreation includes 63,400 square feet of indoor recreation building space. The largest of these facilities include the W. J. Henderson Recreation Centre and the Amherstview Community Hall/Leisure & Activity Centre. The current replacement value for the buildings amounts to \$19.15 million and the land associated with the buildings occupy over 5.74 hectares of land, which is valued at roughly \$1.0 million. Vehicles and equipment used by the Recreation Services Division totals \$1.61 million.

Loyalist Township has 27.38 hectares of community parkland which is valued at approximately \$1.08 million. An additional 32.20 hectares of local parkland in Loyalist has been developed by the private sector, and in accordance with the *DCA*, has been removed from the historical service level calculation. In addition to parkland, the Township offers outdoor recreation by way of ball diamonds, soccer fields, basketball courts, tennis/pickleball courts, and an outdoor rink. The total value of these parks facilities amounts to approximately \$2.63 million. Special facilities such as picnic shelters, multi-purpose facilities, boat ramps, park bridges and play structures add \$1.49 million to the parks inventory. An additional \$289,000 is included for Township paid walkways and development on local parks.

The combined value of capital assets for Parks & Recreation is approximately \$27.25 million. The ten-year historical average service level is \$1,615.19 per capita, and this, multiplied by the ten-year forecast growth in population (1,995), results in a maximum allowable funding envelope of \$3.22 million.

**TABLE 2 2021-2030 DEVELOPMENT-RELATED CAPITAL PROGRAM
& CALCULATION OF THE “UNADJUSTED” DEVELOPMENT
CHARGES**

The 2021–2030 development-related capital program for Parks & Recreation amounts to approximately \$28.22 million, of which, \$25.60 million is related to the Community Hub phase 1 development in 2022. Other projects in the capital program include the Recreation Maintenance Garage Expansion (\$1.05 million) and various vehicles and equipment (\$159,000). The ten-year development-related capital program also includes the development of a park located in Amherstview, Babcock Mill Park, a Dog Park, and an Outdoor Splash Park at a combined cost of \$1.35 million. The Township also intends to undertake a Parks & Recreation Master Plan in 2027 for \$60,000.

The Township has applied for grant funding, equal to \$15.0 million, to help offset the construction cost of the Community Hub – at this time, the grant funding is not confirmed, but assumed to be an integral funding source for this project should the application be accepted. After grant consideration, this reduces the gross program to \$13.22 million. Of the total \$13.22 million net municipal cost, approximately \$7.32 million of the Community Hub project cost has been identified as replacement and benefit to existing community share – this amount will not be funded from development charges. Additional replacement and benefit to existing shares for other projects amount to about \$288,800 and have been removed from the calculation of the DC. Approximately, \$348,000 is available in the Parks & Recreation DC reserve fund and will be used to fund a portion of the Recreation Maintenance Garage expansion and the Amherst Drive Park Trees and Frisbee Golf Park amenity.

A significant component of the program, \$2.04 million, is considered to benefit the post-2030 population. This portion of the capital program is related to the Community Hub development in 2022, new mower in 2024, Babcock Mill Park and Dog Park in 2022/2023, outdoor splash park in 2028, and the Parks & Recreation Master Plan in 2027.

It is important to note that less than 10 per cent (or \$2.38 million) of the total community hub development cost of \$25.60 million is being funded through development charges in this ten-year period. Also, any phase 2 works associated with the Community Hub is not considered in this DC Background Study but may be revisited in the next DC Study (or sooner) should the scope of this project be further defined.

The 2021 to 2030 costs eligible for recovery from development charges amount to \$3.22 million, which is allocated entirely against future residential development in the Township. This results in an unadjusted development charge of \$1,063.19 per capita.

TABLE 3 CASH FLOW ANALYSIS

After cash flow consideration, the calculated residential charge increases to \$1,209.10 per capita.

The following table summarizes the calculation of the Parks & Recreation Services development charge.

PARKS & RECREATION SUMMARY						
10-year Hist. Service Level per capita	2021-2030		Unadjusted		Adjusted	
	Growth-Related Capital Program		Development Charge		Development Charge	
	Total	Net DC Recoverable	\$/capita	\$/Square Metre	\$/capita	\$/Square Metre
\$1,615.19	\$28,220,000	\$3,222,307	\$1,063.19	\$0.00	\$1,209.10	\$0.00

**APPENDIX B.2
TABLE 1**

**LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
PARKS & RECREATION
INDOOR RECREATION**

BUILDINGS Name	# of Square Feet										Township Share	UNIT COST (\$/sq. ft.)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
W.J. Henderson Rec. Centre - Indoor Pool	15,250	15,250	15,250	15,250	15,250	15,250	15,250	15,250	15,250	15,250	100%	\$500
W.J. Henderson Rec. Centre - Indoor Arena	28,497	28,497	28,497	28,497	28,497	28,497	28,497	28,497	28,497	28,497	100%	\$250
Amherstview Community Hall/Leisure & Activity Centre	6,388	10,584	10,584	10,584	10,584	10,584	10,584	10,584	10,584	10,584	100%	\$230
WPSF Canteen/Washrooms/Storage	882	882	882	882	882	882	882	882	882	882	100%	\$120
Recreation Dept Garage - Bath	2,222	4,024	4,024	4,024	4,024	4,024	4,024	4,024	4,024	4,024	100%	\$250
Bath Centennial Park Storage	100	100	100	100	100	100	100	100	100	100	100%	\$120
Wilton Hall	-	-	3,255	3,255	3,255	3,255	3,255	3,255	3,255	3,255	100%	\$210
Ernestown High School - Based on Average Gym Size	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	3%	\$200
Odessa PS - Based on Average Gym Size	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	3%	\$200
Bath PS - Based on Average Gym Size	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	9%	\$200
Fairfield PS - Based on Average Gym Size	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	1%	\$200
Amherstview PS - Based on Average Gym Size	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	4,528	2%	\$200
Total (sq.ft.)	54,141	60,139	63,394	63,394	63,394	63,394	63,394	63,394	63,394	63,394		
Total (\$000)	\$17,052.1	\$18,467.7	\$19,151.3	\$19,151.3	\$19,151.3	\$19,151.3	\$19,151.3	\$19,151.3	\$19,151.3	\$19,151.3		

LAND Name	# of Hectares										UNIT COST (\$/ha)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
W.J. Henderson Rec. Centre	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	\$175,000
Amherstview Community Hall/Leisure & Activity Centre	0.33	0.33	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	\$175,000
Recreation Dept Garage - Bath	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	\$175,000
Wilton Hall	-	-	-	0.21	0.21	0.21	0.21	0.21	0.21	0.21	\$175,000
Total (ha)	5.18	5.18	5.52	5.74	5.74	5.74	5.74	5.74	5.74	5.74	
Total (\$000)	\$907.1	\$907.1	\$966.5	\$1,004.1	\$1,004.1	\$1,004.1	\$1,004.1	\$1,004.1	\$1,004.1	\$1,004.1	

APPENDIX B.2
TABLE 1

LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
PARKS & RECREATION
INDOOR RECREATION

VEHICLES	# of Vehicles										UNIT COST (\$/each)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Riding Lawn Mowers	7	8	9	9	11	12	12	10	10	10	\$32,000
Groomer	-	1	1	1	1	1	1	1	1	1	\$8,000
Scoreboards/Clocks	1	1	1	1	1	1	1	1	1	1	\$165,000
Trailer	2	2	2	2	2	2	2	2	2	2	\$6,000
Tractor with loader	1	1	1	1	1	1	1	1	1	1	\$78,900
Ice resurfacers	1	1	1	1	1	1	1	1	1	1	\$160,000
Dump Truck (2 tonne)	1	1	1	1	1	1	1	1	1	1	\$248,000
Pick up Trucks	4	5	6	6	6	6	7	7	7	8	\$42,000
Tractor	-	-	1	1	1	1	1	1	1	1	\$37,100
Pool Equipment	2	2	2	2	3	3	3	3	3	3	\$38,300
Floor Scrubbers	2	2	2	3	3	3	3	3	3	3	\$9,000
Grass Top Dresser	1	1	1	1	1	1	1	1	1	1	\$23,000
Brush Chipper - Rec	1	1	1	1	1	1	1	1	1	1	\$50,000
Van	-	-	-	1	1	1	1	1	1	1	\$30,000
Total (#)	23	26	29	31	34	35	36	34	34	35	
Total (\$000)	\$1,223.5	\$1,305.5	\$1,416.6	\$1,455.6	\$1,557.9	\$1,589.9	\$1,631.9	\$1,567.9	\$1,567.9	\$1,609.9	

APPENDIX B.2
TABLE 1

LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
PARKS & RECREATION
PARKLAND

COMMUNITY PARKS Park Name	# of Hectares of Developed Area										UNIT COST (\$/ha)*
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Fairfield Park	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	\$39,300
Lakeview Park	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	\$39,300
Willie Pratt Sports Field	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	\$39,300
Kilminster Park	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	\$39,300
Centennial Park (Odessa)	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	\$39,300
J. Earl Burt Memorial Park	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	\$39,300
Dinosaur Park	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	\$39,300
Centennial Park (Bath)	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	\$39,300
Loyalist Park (formerly Amherst Drive)	1.20	1.20	1.20	2.63	2.63	2.63	2.63	2.63	2.63	2.63	\$39,300
Sand Beach	-	-	-	2.97	2.97	2.97	2.97	2.97	2.97	2.97	\$39,300
Total Park (ha)	22.98	22.98	22.98	27.38	27.38	27.38	27.38	27.38	27.38	27.38	
Total (\$000)	\$903.2	\$903.2	\$903.2	\$1,075.9	\$1,075.9	\$1,075.9	\$1,075.9	\$1,075.9	\$1,075.9	\$1,075.9	

Note*: Unit Cost includes development cost and some park amenities which is not included in the parks facility tabs

**APPENDIX B.2
TABLE 1**

**LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
PARKS & RECREATION
PARKLAND**

LOCAL PARKS Park Name	# of Hectares of Developed Area										UNIT COST
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	(\$/ha)
Amherst Island Back Beach	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	
Centennial Park (Stella AI)	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Lanes End Park	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	
Ferry Dock Park (Stella AI)	0.05	0.05	0.12	0.12	0.12	0.12	0.12	0.12	-	-	
Stella Bay Park	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	
Amherst Drive Parkette	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	
Centennial Park (Amherstview)	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	
Eastside Park	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
Brooklands Parkette	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	
Harewood Village Park	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	
Harewood Village Park - Block A	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	
Islandview Park	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
Lighthouse Park	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	
McPherson Park	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	
South of Invista	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	
Highway 33 Rest Area	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
Briscoe Park	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	
Bulch Park	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	
Finkle's Shore Park	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	
Hawley Court Park	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	
Heritage Park	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	
Babcock Mill Park (North)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	
Babcock Mill Park (South)	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57	
Dopking Park	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	
Sunnyside Park	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	
William St Park	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	
Millcreek Park	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	
Bath Park & Tennis Courts	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	
Wilton Playground	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	
Bayview Park (formerly Lower Lakeside Park)	-	-	-	1.33	1.33	1.33	1.33	1.33	1.33	1.33	
Ridge Park (formerly Upper Lakeside)	-	-	-	1.09	1.09	1.09	1.09	1.09	1.09	1.09	
Bayshore Drive Parkette	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	
Jessup Lane Park	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	
Parkland to be named north of school Bath	2.32	2.32	2.32	2.32	2.32	2.32	2.32	2.32	2.32	2.32	
Total (#)	29.83	29.83	29.90	32.32	32.32	32.32	32.32	32.32	32.20	32.20	
Total (\$000)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

**APPENDIX B.2
TABLE 1**

**LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
PARKS & RECREATION
PARK FACILITIES**

SPORTS FIELDS Park Name	# of Sports Fields										UNIT COST (\$/unit)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Willie Pratt Ball Diamonds	2	2	2	2	2	2	2	2	2	2	\$213,900
Willie Pratt Soccer Pitch (Lit)	1	1	1	1	1	1	1	1	1	1	\$418,900
Willie Pratt Soccer Pitch (Unlit)	1	1	1	1	1	1	1	1	1	1	\$102,900
Kilminster Park Ball Diamond	1	1	1	1	1	1	1	1	1	1	\$171,100
J. Earl Burt Ball Diamond	1	1	1	1	1	1	1	1	1	1	\$171,100
Centennial Park (Odessa) Ball Diamond	1	1	1	1	1	1	1	1	1	1	\$13,600
Wj Henderson Centre Soccer Field	2	2	2	2	2	2	2	2	2	2	\$266,900
School Board Property (Bath) Ball Diamond	1	1	1	1	1	1	1	1	1	1	\$171,100
School Board Property (Amherstview) Ball Diamond	2	2	2	2	2	2	2	2	2	2	\$171,100
Total (#)	12	12	12	12	12	12	12	12	12	12	
Total (\$000)	\$2,352.5	\$2,352.5	\$2,352.5	\$2,352.5	\$2,352.5	\$2,352.5	\$2,352.5	\$2,352.5	\$2,352.5	\$2,352.5	

TENNIS COURTS Park Name	# of Tennis Courts										UNIT COST (\$/unit)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Bath Tennis Courts	2	2	2	2	2	1	1	1	1	1	\$63,000
Bath Pickelball Courts	-	-	-	-	-	4	4	4	4	4	\$17,800
Total (#)	2	2	2	2	2	5	5	5	5	5	
Total (\$000)	\$126.0	\$126.0	\$126.0	\$126.0	\$126.0	\$134.2	\$134.2	\$134.2	\$134.2	\$134.2	

APPENDIX B.2
TABLE 1

LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
PARKS & RECREATION
PARK FACILITIES

BASKETBALL COURTS Park Name	# of Basketball Courts										UNIT COST (\$/unit)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Hawley Court Park Basketball Court	1	1	1	1	1	1	1	1	1	1	\$32,100
Wilton Basketball Court	1	1	1	1	1	1	1	1	1	1	\$32,100
Briscoe Park Basketball Court	1	1	1	1	1	1	1	1	1	1	\$32,100
Lakeview Park Basketball Court	-	-	-	-	-	-	1	1	1	1	\$32,100
Total (#)	3	3	3	3	3	3	4	4	4	4	
Total (\$000)	\$96.3	\$96.3	\$96.3	\$96.3	\$96.3	\$96.3	\$128.4	\$128.4	\$128.4	\$128.4	

OUTDOOR RINKS Park Name	# of Outdoor Rinks										UNIT COST (\$/unit)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Skater Park	1	1	1	1	1	1	1	1	1	1	\$14,900
Total (#)	1	1	1	1	1	1	1	1	1	1	
Total (\$000)	\$14.9	\$14.9	\$14.9	\$14.9	\$14.9	\$14.9	\$14.9	\$14.9	\$14.9	\$14.9	

**APPENDIX B.2
TABLE 1**

**LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
PARKS & RECREATION
SPECIAL FACILITIES**

PICNIC SHELTERS Park Name	Total Value of Picnic Shelters (\$000)									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Finkell Shores	\$151,400	\$151,400	\$151,400	\$151,400	\$151,400	\$153,900	\$153,900	\$153,900	\$153,900	\$153,900
Mill Creek Park	\$74,300	\$74,300	\$74,300	\$74,300	\$74,300	\$74,300	\$74,300	\$74,300	\$74,300	\$74,300
Wilton Park - Shelter	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500
Bath Centennial Park North	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$146,300	\$146,300
Total (\$000)	\$239.2	\$239.2	\$239.2	\$239.2	\$239.2	\$241.7	\$241.7	\$241.7	\$388.0	\$388.0

OUTDOOR MULTI-PURPOSE FACILITY Park Name	Total Value of Outdoor Multi-Purpose Facility (\$000)									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Odessa Fairground	\$90,700	\$90,700	\$90,700	\$420,300	\$420,300	\$420,300	\$420,300	\$420,300	\$420,300	\$420,300
Total (\$000)	\$90.7	\$90.7	\$90.7	\$420.3	\$420.3	\$420.3	\$420.3	\$420.3	\$420.3	\$420.3

BOAT RAMPS (\$000) Park Name	Total Value of Boat Ramps (\$000)									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Finkle Shore Park Boat Ramp	\$61,900	\$61,900	\$61,900	\$61,900	\$61,900	\$61,900	\$61,900	\$61,900	\$61,900	\$61,900
Amherst Island Boat Ramp	\$93,500	\$93,500	\$93,500	\$93,500	\$93,500	\$93,500	\$93,500	\$93,500	\$93,500	\$93,500
Total (\$000)	\$155.4	\$155.4	\$155.4	\$155.4	\$155.4	\$155.4	\$155.4	\$155.4	\$155.4	\$155.4

**APPENDIX B.2
TABLE 1**

**LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
PARKS & RECREATION
SPECIAL FACILITIES**

PARK BRIDGES (\$000)	Total Value of Park Bridges (\$000)									
Park Name	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bath North Centennial Park Bridge	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200
Bath South Centennial Park Bridge	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200
Babcock Mill Park Bridge	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200	\$37,200
Total (\$000)	\$59.6	\$59.6	\$59.6	\$59.6	\$59.6	\$59.6	\$59.6	\$59.6	\$59.6	\$59.6

PLAY STRUCTURES (\$000)	Total Value of Park Play Structures (\$000)									
Park Name	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
All Play Structures	\$62,000	\$62,000	\$62,000	\$62,000	\$142,000	\$260,000	\$396,000	\$430,000	\$430,000	\$470,000
Township Paid Walkways/Development on Local Parks										
Briscoe Park	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$68,000
Babcock Mill Park	\$0	\$0	\$0	\$0	\$0	\$9,000	\$9,000	\$9,000	\$9,000	\$68,000
Finkle Shore Park	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$70,000	\$70,000
Wilton Park	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,000	\$34,000	\$34,000
Sunnyside Park	\$0	\$0	\$0	\$0	\$0	\$0	\$7,000	\$7,000	\$7,000	\$7,000
Millcreek Park	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000	\$20,000	\$20,000	\$20,000
Hawley Court Park	\$0	\$0	\$0	\$0	\$0	\$0	\$22,000	\$22,000	\$22,000	\$22,000
Total (\$000)	\$62.0	\$62.0	\$62.0	\$62.0	\$142.0	\$269.0	\$454.0	\$522.0	\$592.0	\$759.0

**APPENDIX B.2
TABLE 1**

**LOYALIST TOWNSHIP
CALCULATION OF SERVICE LEVELS
PARKS & RECREATION**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Historical Population	15,427	15,574	15,723	15,873	16,024	16,177	16,368	16,561	16,756	16,953

INVENTORY SUMMARY (\$000)

Indoor Recreation	\$19,182.8	\$20,680.4	\$21,534.4	\$21,611.0	\$21,713.3	\$21,745.3	\$21,787.3	\$21,723.3	\$21,723.3	\$21,765.3
Parkland	\$903.2	\$903.2	\$903.2	\$1,075.9	\$1,075.9	\$1,075.9	\$1,075.9	\$1,075.9	\$1,075.9	\$1,075.9
Park Facilities	\$2,589.7	\$2,589.7	\$2,589.7	\$2,589.7	\$2,589.7	\$2,597.9	\$2,630.0	\$2,630.0	\$2,630.0	\$2,630.0
Special Facilities	\$606.9	\$606.9	\$606.9	\$936.5	\$1,016.5	\$1,146.0	\$1,331.0	\$1,399.0	\$1,615.3	\$1,782.3
Total (\$000)	\$23,282.5	\$24,780.1	\$25,634.2	\$26,213.1	\$26,395.4	\$26,565.1	\$26,824.2	\$26,828.2	\$27,044.5	\$27,253.5

SERVICE LEVEL (\$/capita)											Average Service Level
Indoor Recreation	\$1,243.46	\$1,327.88	\$1,369.61	\$1,361.50	\$1,355.05	\$1,344.21	\$1,331.09	\$1,311.72	\$1,296.45	\$1,283.86	\$1,322.48
Parkland	\$58.54	\$57.99	\$57.44	\$67.78	\$67.14	\$66.51	\$65.73	\$64.97	\$64.21	\$63.46	\$63.38
Park Facilities	\$167.87	\$166.28	\$164.71	\$163.15	\$161.61	\$160.59	\$160.68	\$158.81	\$156.96	\$155.13	\$161.58
Special Facilities	\$39.34	\$38.97	\$38.60	\$59.00	\$63.44	\$70.84	\$81.32	\$84.48	\$96.40	\$105.13	\$67.75
Total (\$/capita)	\$1,509.21	\$1,591.12	\$1,630.36	\$1,651.43	\$1,647.24	\$1,642.15	\$1,638.82	\$1,619.96	\$1,614.02	\$1,607.59	\$1,615.19

**LOYALIST TOWNSHIP
CALCULATION OF MAXIMUM ALLOWABLE
PARKS & RECREATION**

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2011 - 2020	\$1,615.19
Net Population Growth 2021 - 2030	1,995
Maximum Allowable Funding Envelope	\$3,222,307

APPENDIX B.2
TABLE 2

LOYALIST TOWNSHIP
DEVELOPMENT-RELATED CAPITAL PROGRAM
PARKS & RECREATION

Service	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs Replacement and BTE Share	Total DC Eligible Costs	DC Eligible Cost		
								Prior Growth	2021-2030	Other Dev. Related
2.0 PARKS & RECREATION										
2.1 Buildings, Land & Furnishings										
2.1.1	Recreation Maintenance Garage Expansion Design	2021	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ 50,000	\$ 50,000	\$ -	\$ -
2.1.2	Recreation Maintenance Garage Expansion (4,000 sq.ft)	2022	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000	\$ 250,074	\$ 749,926	\$ -
2.1.3	Community Hub - Phase 1	2022	\$ 25,600,000	\$ 15,000,000	\$ 10,600,000	\$ 7,318,847	\$ 3,281,153	\$ -	\$ 2,377,381	\$ 903,772
	Subtotal Buildings, Land & Furnishings		\$ 26,650,000	\$ 15,000,000	\$ 11,650,000	\$ 7,318,847	\$ 4,331,153	\$ 300,074	\$ 3,127,307	\$ 903,772
2.2 Vehicles and Equipment										
2.2.1	Bat Wing Mower	2022	\$ 85,000	\$ -	\$ 85,000	\$ 32,000	\$ 53,000	\$ -	\$ 53,000	\$ -
2.2.2	Half Ton Truck	2022	\$ 42,000	\$ -	\$ 42,000	\$ -	\$ 42,000	\$ -	\$ 42,000	\$ -
2.2.3	New Mower	2024	\$ 32,000	\$ -	\$ 32,000	\$ -	\$ 32,000	\$ -	\$ -	\$ 32,000
	Subtotal Vehicles and Equipment		\$ 159,000	\$ -	\$ 159,000	\$ 32,000	\$ 127,000	\$ -	\$ 95,000	\$ 32,000
2.3 Parks and Amenities										
2.3.1	Amherst Drive Park - Trees & Frisbee Golf	2021	\$ 48,000	\$ -	\$ 48,000	\$ -	\$ 48,000	\$ 48,000	\$ -	\$ -
2.3.2	Babcock Mill Park South Paving	2021	\$ 138,000	\$ -	\$ 138,000	\$ 121,760	\$ 16,240	\$ -	\$ -	\$ 16,240
2.3.3	Dog Park	2022	\$ 125,000	\$ -	\$ 125,000	\$ -	\$ 125,000	\$ -	\$ -	\$ 125,000
2.3.4	Babcock Mill Park Lighting, Path Extension and North Paving	2023	\$ 540,000	\$ -	\$ 540,000	\$ 135,000	\$ 405,000	\$ -	\$ -	\$ 405,000
2.3.5	Outdoor Splash Park	2028	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ 500,000
	Subtotal Parks and Amenities		\$ 1,351,000	\$ -	\$ 1,351,000	\$ 256,760	\$ 1,094,240	\$ 48,000	\$ -	\$ 1,046,240
2.4 Studies										
2.4.1	Parks & Recreation Master Plan	2027	\$ 60,000	\$ -	\$ 60,000	\$ -	\$ 60,000	\$ -	\$ -	\$ 60,000
	Subtotal Studies		\$ 60,000	\$ -	\$ 60,000	\$ -	\$ 60,000	\$ -	\$ -	\$ 60,000
2.5 Other Expansion Activities										
2.5.1	Community Hub - Phase 2 (Cost and Timing TBD)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL PARKS & RECREATION			\$ 28,220,000	\$ 15,000,000	\$ 13,220,000	\$ 7,607,608	\$ 5,612,392	\$ 348,074	\$ 3,222,307	\$ 2,042,012

Residential Development Charge Calculation		
Residential Share of 2021-2030 DC Eligible Costs	100%	\$3,222,307
10-Year Growth in Population in New Units		3,031
Unadjusted Development Charge Per Capita (\$)		\$1,063.19
Non-Residential Development Charge Calculation		
Non-Residential Share of 2021-2030 DC Eligible Costs	0%	\$0
10-Year Growth in Square Metres		34,224
Unadjusted Development Charge Per Square Metre		\$0.00

2021 - 2030 Net Funding Envelope	\$3,222,307
Uncommitted Reserve Fund Balance	
Balance as at December 31, 2020	\$348,074

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
PARKS & RECREATION
RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

PARKS & RECREATION	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	\$342.1	(\$2,664.8)	(\$2,439.5)	(\$2,183.6)	(\$1,894.3)	(\$1,568.8)	(\$1,234.5)	(\$863.6)	(\$453.2)	
2021 - 2030 RESIDENTIAL FUNDING REQUIREMENTS											
- Parks & Recreation: Non-Inflated	\$0.0	\$3,222.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,222.3
- Parks & Recreation: Inflated	\$0.0	\$3,286.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,286.8
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	278	283	291	299	307	316	304	310	318	325	3,031
REVENUE											
- DC Receipts: Inflated	\$336.2	\$348.6	\$365.5	\$383.4	\$402.3	\$422.4	\$413.3	\$431.2	\$450.1	\$469.9	\$4,022.9
INTEREST											
- Interest on Opening Balance	\$0.0	\$12.0	(\$146.6)	(\$134.2)	(\$120.1)	(\$104.2)	(\$86.3)	(\$67.9)	(\$47.5)	(\$24.9)	(\$719.7)
- Interest on In-year Transactions	\$5.9	(\$80.8)	\$6.4	\$6.7	\$7.0	\$7.4	\$7.2	\$7.5	\$7.9	\$8.2	(\$16.5)
TOTAL REVENUE	\$342.1	\$279.8	\$225.3	\$255.9	\$289.2	\$325.6	\$334.2	\$370.9	\$410.5	\$453.2	\$3,286.8
CLOSING CASH BALANCE	\$342.1	(\$2,664.8)	(\$2,439.5)	(\$2,183.6)	(\$1,894.3)	(\$1,568.8)	(\$1,234.5)	(\$863.6)	(\$453.2)	\$0.0	

2021 Adjusted Charge Per Capita

\$1,209.10

Allocation of Capital Program

Residential Sector	100.0%
Non-Residential Sector	0.0%

Rates for 2021

Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.3

DEVELOPMENT-RELATED STUDIES

DEVELOPMENT-RELATED STUDIES

The *DCA* allows the cost of development-related studies to be included in the calculation of the development charges as long as they are permitted under the legislation.

**TABLE 1 2021-2030 DEVELOPMENT-RELATED CAPITAL PROGRAM
& CALCULATION OF THE “UNADJUSTED” DEVELOPMENT
CHARGES**

As shown in Table 1, the 2021-2030 development-related gross cost for development-related studies is \$756,800. The capital program relates to various development-related studies, including future development charges studies, updates to the Townships Official Plan and Zoning By-law, a settlement area/growth projection study update and other development related studies.

Recognizing that not all projects under this service are entirely a result of new growth in the Township, “benefit to existing” shares have been netted off the total cost. These shares have been calculated at 50 per cent of applicable studies and amount to \$137,500, which will not be recovered through development charges.

An amount of \$195,500 is available in the Development-Related Studies reserves, which are used to offset the cost of two studies. The remaining \$423,800 is brought forward to the development charges calculation. The development-related cost is allocated 80 per cent, or \$339,000, against new residential development, and 20 per cent, or \$84,800, against new non-residential development. This yields an unadjusted development charge of \$111.87 per capita and \$2.48 per square metre.

TABLE 2 CASH FLOW ANALYSIS

The cash-flow analysis is displayed in Table 2. It considers timing of the development charges revenues to determine the adjusted calculated rates. After cash flow considerations, the residential charge increases to \$121.11 charge per capita and the non-residential charge increases to \$2.67 per square metre. The following table summarizes the calculation of the Development-Related Studies development charge.

DEVELOPMENT-RELATED STUDIES SUMMARY					
2021-2030		Unadjusted		Adjusted	
Growth-Related	Capital Program	Development Charge		Development Charge	
Total	Net DC Recoverable	\$/capita	\$/Square Metre	\$/capita	\$/Square Metre
\$756,800	\$423,817	\$111.87	\$2.48	\$121.11	\$2.67

APPENDIX B.3
TABLE 1

LOYALIST TOWNSHIP
DEVELOPMENT-RELATED CAPITAL PROGRAM
DEVELOPMENT-RELATED STUDIES

Service	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs Replacement and BTE Share	Total DC Eligible Costs	DC Eligible Cost		
								Prior Growth	2021-2030	Other Dev. Related
3.0 DEVELOPMENT-RELATED STUDIES										
	3.1 Studies									
	3.1.1 Design Guidelines	2021	\$ 125,000	\$ -	\$ 125,000	\$ 62,500	\$ 62,500	\$ 62,500	\$ -	\$ -
	3.1.2 Secondary Plan Study	2021	\$ 331,800	\$ -	\$ 331,800	\$ -	\$ 331,800	\$ 132,983	\$ 198,817	\$ -
	3.1.3 Zoning By-Law Review	2021	\$ 25,000	\$ -	\$ 25,000	\$ 12,500	\$ 12,500	\$ -	\$ 12,500	\$ -
	3.1.4 Development Charge Study	2021	\$ 20,000	\$ -	\$ 20,000	\$ -	\$ 20,000	\$ -	\$ 20,000	\$ -
	3.1.5 Development Charge Study (ASDC)	2023	\$ 15,000	\$ -	\$ 15,000	\$ -	\$ 15,000	\$ -	\$ 15,000	\$ -
	3.1.6 Settlement Area/Growth Projection Study Update	2024	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -
	3.1.7 Official Plan Review	2025	\$ 50,000	\$ -	\$ 50,000	\$ 25,000	\$ 25,000	\$ -	\$ 25,000	\$ -
	3.1.8 Zoning By-Law Review	2026	\$ 25,000	\$ -	\$ 25,000	\$ 12,500	\$ 12,500	\$ -	\$ 12,500	\$ -
	3.1.9 Development Charge Study	2026	\$ 35,000	\$ -	\$ 35,000	\$ -	\$ 35,000	\$ -	\$ 35,000	\$ -
	3.1.10 Settlement Area/Growth Projection Study Update	2029	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -
	3.1.11 Official Plan Review	2030	\$ 50,000	\$ -	\$ 50,000	\$ 25,000	\$ 25,000	\$ -	\$ 25,000	\$ -
	Subtotal Studies		\$ 756,800	\$ -	\$ 756,800	\$ 137,500	\$ 619,300	\$ 195,483	\$ 423,817	\$ -
TOTAL DEVELOPMENT-RELATED STUDIES			\$ 756,800	\$ -	\$ 756,800	\$ 137,500	\$ 619,300	\$ 195,483	\$ 423,817	\$ -

Residential Development Charge Calculation		
Residential Share of 2021-2030 DC Eligible Costs	80%	\$339,054
10-Year Growth in Population in New Units		3,031
Unadjusted Development Charge Per Capita (\$)		\$111.87
Non-Residential Development Charge Calculation		
Non-Residential Share of 2021-2030 DC Eligible Costs	20%	\$84,763
10-Year Growth in Square Metres		34,224
Unadjusted Development Charge Per Square Metre		\$2.48

Uncommitted Reserve Fund Balance	
Balance as at December 31, 2020	\$195,483

**APPENDIX B.3
TABLE 2**

**LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
DEVELOPMENT-RELATED STUDIES
RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)**

DEVELOPMENT-RELATED STUDIES	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	(\$155.5)	(\$128.6)	(\$111.1)	(\$112.7)	(\$99.9)	(\$105.0)	(\$68.7)	(\$28.5)	(\$22.3)	
2021 - 2030 RESIDENTIAL FUNDING REQUIREMENTS											
- Development-Related Studies: Non-Inflated	\$185.1	\$0.0	\$12.0	\$32.0	\$20.0	\$38.0	\$0.0	\$0.0	\$32.0	\$20.0	\$339.1
- Development-Related Studies: Inflated	\$185.1	\$0.0	\$12.5	\$34.0	\$21.6	\$42.0	\$0.0	\$0.0	\$37.5	\$23.9	\$356.5
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	278	283	291	299	307	316	304	310	318	325	3,031
REVENUE											
- DC Receipts: Inflated	\$33.7	\$34.9	\$36.6	\$38.4	\$40.3	\$42.3	\$41.4	\$43.2	\$45.1	\$47.1	\$403.0
INTEREST											
- Interest on Opening Balance	\$0.0	(\$8.6)	(\$7.1)	(\$6.1)	(\$6.2)	(\$5.5)	(\$5.8)	(\$3.8)	(\$1.6)	(\$1.2)	(\$45.8)
- Interest on In-year Transactions	(\$4.2)	\$0.6	\$0.4	\$0.1	\$0.3	\$0.0	\$0.7	\$0.8	\$0.1	\$0.4	(\$0.7)
TOTAL REVENUE	\$29.5	\$27.0	\$30.0	\$32.4	\$34.4	\$36.8	\$36.3	\$40.2	\$43.7	\$46.2	\$356.5
CLOSING CASH BALANCE	(\$155.5)	(\$128.6)	(\$111.1)	(\$112.7)	(\$99.9)	(\$105.0)	(\$68.7)	(\$28.5)	(\$22.3)	\$0.0	

2021 Adjusted Charge Per Capita

\$121.11

Allocation of Capital Program

Residential Sector	80.0%
Non-Residential Sector	20.0%

Rates for 2021

Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.3

TABLE 2

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
DEVELOPMENT-RELATED STUDIES
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

DEVELOPMENT-RELATED STUDIES	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	(\$37.8)	(\$30.5)	(\$25.7)	(\$25.7)	(\$22.4)	(\$23.5)	(\$14.8)	(\$5.4)	(\$4.6)	
2021 - 2030 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Development-Related Studies: Non-inflated	\$46.3	\$0.0	\$3.0	\$8.0	\$5.0	\$9.5	\$0.0	\$0.0	\$8.0	\$5.0	\$84.8
- Development-Related Studies: Inflated	\$46.3	\$0.0	\$3.1	\$8.5	\$5.4	\$10.5	\$0.0	\$0.0	\$9.4	\$6.0	\$89.1
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	3,550	3,379	3,429	3,499	3,499	3,601	3,258	3,289	3,359	3,359	34,224
REVENUE											
- DC Receipts: Inflated	\$9.5	\$9.2	\$9.5	\$9.9	\$10.1	\$10.6	\$9.8	\$10.1	\$10.5	\$10.7	\$99.8
INTEREST											
- Interest on Opening Balance	\$0.0	(\$2.1)	(\$1.7)	(\$1.4)	(\$1.4)	(\$1.2)	(\$1.3)	(\$0.8)	(\$0.3)	(\$0.3)	(\$10.5)
- Interest on In-year Transactions	(\$1.0)	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.2	\$0.2	\$0.0	\$0.1	(\$0.2)
TOTAL REVENUE	\$8.4	\$7.3	\$7.9	\$8.5	\$8.8	\$9.4	\$8.7	\$9.4	\$10.2	\$10.5	\$89.1
CLOSING CASH BALANCE	(\$37.8)	(\$30.5)	(\$25.7)	(\$25.7)	(\$22.4)	(\$23.5)	(\$14.8)	(\$5.4)	(\$4.6)	\$0.0	

2021 Adjusted Charge Per Square Metre

\$2.67

Allocation of Capital Program

Residential Sector	80.0%
Non-Residential Sector	20.0%

Rates for 2021

Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C

TOWNSHIP-WIDE ENGINEERED SERVICES

TECHNICAL APPENDIX

APPENDIX C.1.1

SERVICES RELATED TO A HIGHWAY:

ROADS & RELATED

TECHNICAL APPENDIX

SERVICES RELATED TO A HIGHWAY: ROADS & RELATED TECHNICAL APPENDIX

This appendix provides a detailed analysis of the municipal engineered infrastructure, namely roads and related. The roads and related infrastructure includes the roads themselves as well as sidewalks, streetlighting and transportation studies.

The development-related roads and related infrastructure are projects required to service the demands of new development over the period 2021-2030. Over this period, it is anticipated that the Township will experience an increase of 3,031 persons in new dwelling units. This forecast is discussed in more detail in Appendix A.

The following tables set out the 2021 to 2030 development-related capital forecast and the calculation of the development charge for Roads & Related infrastructure. The cost, quantum and description of the projects included in the forecast have been provided by Township staff, and other capital planning documents. This section of the appendix identifies the necessary Roads & Related infrastructure to allow the Township to meet the servicing needs of the forecast 2030 population and employment.

SERVICES RELATED TO A HIGHWAY: ROADS & RELATED

Tables 1, 2 and 3 provide details of the projects included in the Township-wide Services Related to a Highway: Roads & Related engineered infrastructure development charges calculation. The content of the tables is as follows:

Table 1	Historical Service Levels
Table 2	Roads & Related Capital Program 2021-2030
Table 3	Residential and Non-Residential Cash Flow

TABLE 1 HISTORICAL SERVICE LEVELS

Table 1 outlines the Township’s inventory of capital assets for Roads & Related services. The Township has a total of approximately 507 lane kilometres with a total value of \$127.05 million broken out between high class and low class bitumen as well as gravel roads.

Bridges and Culverts add an additional \$35.39 million to the total inventory while Sidewalks account for a total of \$25.02 million. Lastly, other Roads & Related assets such as streetlights and road network signs add another \$5.09 million to the total asset inventory.

The current value of the Roads & Related capital infrastructure is valued at approximately \$192.55 million and has provided Loyalist with a ten-year average historical service level of \$9,371.90 per capita and employment. This, when multiplied by the net population and employment growth (2,484) from 2021 to 2030 results in a calculated maximum allowable funding envelope of \$23.28 million.

**TABLE 2 2021-2030 DEVELOPMENT-RELATED CAPITAL PROGRAM
& CALCULATIONS OF THE “UNADJUSTED”
DEVELOPMENT CHARGES**

The total cost of the Roads & Related capital program is \$5.56 million (Table 2) and provides for the undertaking of various road upgrades, the construction of new sidewalks, street lighting works and an Infrastructure Master Plan. Also included for in the capital program is a provision for growth-related road works (i.e. roads, curbs, sidewalks,) anticipated as part of the development of the Amherstview West Secondary Plan area to complement the development anticipated to commence in this planning period. It is expected that a more detailed list of capital requirements, including costs and timing, will be prepared as the developments begin to unfold. Of the total project costs, approximately \$685,000 has been identified as projects that will be funded directly by the developer and are removed from the development charge calculation. This list is currently being refined and may be adjusted in a future consolidated version of this Study. Other grants and subsidies totalling \$704,700 have been removed from the calculation. An additional \$812,800 has been identified as a replacement/benefit to existing share, which will be funded from non-development charge sources. This benefit to existing component is largely related to roadwork and street lighting projects. The Township has approximately \$1.37 million in available Roads & Related DC reserves to offset the cost of the projects, these funds are applied to the projects in the initial years of the program. The table below provides a high-level summary of the gross project costs of the program versus the amount eligible for recovery through development charges in this period.

Project Type	Gross Project Cost (\$000)	DC Eligible Costs for Recovery* 2021-2030 (\$000)
Road Works	\$3,808.1	\$1,387.3
Sidewalks/Multi-Use Pathways	\$815.9	\$506.3
Streetlighting	\$200.0	\$100.0
Studies	\$54.0	\$0.0
Other Road Projects – Developer or LIC Funded	\$685.0	\$0.0
Total	\$5,563.0	\$1,993.6

**After existing reserve funds are considered*

The total development-related Roads & Related capital program for the 2021-2030 period is \$1.99 million, as shown on Table 2. The development-related costs have been allocated 80 per cent, or \$1.59 million, to residential development and 20 per cent, or \$398,700, to non-residential development. The allocation of costs is based on shares of population and employment growth over the planning period from 2021-2030.

The non-residential share of the development-related costs has been further allocated between industrial and non-industrial land uses. The non-industrial costs are allocated between the land use types consistent with the allocation in the last study (based on trip generation that would be generated by the forecast new non-residential development over the period from 2021-2030) plus employment growth within the sectors. The result is an allocation of 30 per cent to industrial and 70 per cent to all other non-industrial land uses.

The residential costs are recovered against the population growth in new dwelling units over the period 2021-2030 of 3,031 persons yielding an unadjusted charge of \$526.23 per capita. The non-residential costs are recovered against the forecast development in non-residential floor area over the period 2021-2030 of 34,224 square metres. The non-residential growth is assumed to occur 30 per cent (22,270 square metre) to industrial and 70 per cent (11,953 square metre) to the non-industrial sector.

The industrial costs are recovered against the growth in industrial floor area over the 2021-2030 period of 22,270 square metres yielding an unadjusted charge of \$5.37 square metre. The non-industrial costs are recovered against the growth in non-industrial area over the 2021-2030 period of 11,953 square metres yielding an unadjusted charge of \$23.35 square metre.

TABLE 3 CASH FLOW ANALYSIS

After cash flow consideration, the residential calculated charge decreases to \$518.17 per capita. The non-industrial charge decreases to \$22.92 per square metre and the industrial charge also sees a slight decrease to \$5.27 per square metre.

The following table summarizes the calculation of the Roads & Related development charge.

ROADS & RELATED SUMMARY							
2021-2030		Unadjusted Development Charge			Adjusted Development Charge		
Growth-Related Capital Program	Residential	Non-Industrial	Industrial	Residential	Non-Industrial	Industrial	
Total	Net DC Recoverable	\$/capita	\$/Square Metre	\$/sq.m	\$/capita	\$/Square Metre	\$/Square Metre
\$5,563,000	\$1,993,613	\$526.23	\$23.35	\$5.37	\$518.17	\$22.92	\$5.27

**APPENDIX C.1.1
TABLE 1**

**TOWNSHIP OF LOYALIST
INVENTORY OF CAPITAL ASSETS
SERVICES RELATED TO A HIGHWAY
ROADS & RELATED**

ROADS Type of Road	# of Lane Kilometres										UNIT COST
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	(\$/km)
High Class Bitumen	109.71	112.76	118.57	119.77	119.85	120.64	121.32	121.71	124.55	125.15	\$493,100
Low Class Bitumen	159.45	159.45	159.45	159.45	159.45	159.45	159.45	159.45	159.45	159.45	\$200,700
Other - Gravel Roads	217.83	217.83	217.83	217.83	220.41	220.28	220.28	220.28	222.25	222.25	\$150,000
Total (km)	486.99	490.03	495.84	497.04	499.71	500.36	501.05	501.43	506.24	506.84	
Total (\$000)	\$118,775.2	\$120,276.8	\$123,140.1	\$123,731.6	\$124,161.0	\$124,528.6	\$124,867.9	\$125,056.4	\$126,752.4	\$127,049.1	

BRIDGES & CULVERTS Description	# of Bridges & Culverts										UNIT COST
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	(\$/unit)
Bridges/Box Culverts	34	34	34	34	34	34	34	34	34	34	\$692,400
Culverts Cross Road	652	680	689	693	693	698	696	722	730	733	\$9,100
Culverts Driveway	2,519	2,536	2,533	2,533	2,533	2,546	2,574	2,576	2,585	2,590	\$2,000
Total (#)	3,205	3,250	3,256	3,260	3,260	3,278	3,304	3,332	3,349	3,357	
Total (\$000)	\$34,512.8	\$34,801.6	\$34,877.5	\$34,913.9	\$34,913.9	\$34,985.4	\$35,023.2	\$35,263.8	\$35,354.6	\$35,391.9	

SIDEWALKS Description	# Metres										UNIT COST
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	(\$/m)
Sidewalks & Curbs	41,759	42,898	43,536	44,603	46,827	47,457	47,389	47,389	49,239	50,035.9	\$500
Total (km)	41,759.0	42,898.3	43,536.1	44,603.1	46,827.1	47,457.3	47,388.7	47,388.7	49,238.7	50,035.9	
Total (\$000)	\$20,879.5	\$21,449.2	\$21,768.1	\$22,301.6	\$23,413.5	\$23,728.6	\$23,694.4	\$23,694.4	\$24,619.3	\$25,018.0	

OTHER ROADS & RELATED Description	# of Units										UNIT COST
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	(\$/unit)
Streetlights	881	929	946	969	977	995	1,007	1,007	1,007	1,007	\$4,300
Road Network Signs - All	3,283	3,309	3,315	3,329	3,516	3,584	3,797	3,797	3,817	3,820	\$200
Total (km)	4,164.00	4,238.00	4,261.00	4,298.00	4,493.00	4,579.00	4,804.00	4,804.00	4,824.00	4,827.00	
Total (\$000)	\$4,444.9	\$4,656.5	\$4,730.8	\$4,832.5	\$4,904.3	\$4,995.3	\$5,089.5	\$5,089.5	\$5,093.5	\$5,094.1	

APPENDIX C.1.1
TABLE 1

TOWNSHIP OF LOYALIST
CALCULATION OF SERVICE LEVELS
SERVICES RELATED TO A HIGHWAY
ROADS & RELATED

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Historical Population	15,427	15,574	15,723	15,873	16,024	16,177	16,368	16,561	16,756	16,953
Historical Employment	<u>2,875</u>	<u>3,098</u>	<u>3,338</u>	<u>3,597</u>	<u>3,876</u>	<u>4,175</u>	<u>4,224</u>	<u>4,273</u>	<u>4,323</u>	<u>4,373</u>
Total	18,302	18,672	19,061	19,470	19,900	20,352	20,592	20,834	21,079	21,326

INVENTORY SUMMARY (\$000)

Roads	\$118,775.2	\$120,276.8	\$123,140.1	\$123,731.6	\$124,161.0	\$124,528.6	\$124,867.9	\$125,056.4	\$126,752.4	\$127,049.1
Bridges & Culverts	\$34,512.8	\$34,801.6	\$34,877.5	\$34,913.9	\$34,913.9	\$34,985.4	\$35,023.2	\$35,263.8	\$35,354.6	\$35,391.9
Sidewalks	\$20,879.5	\$21,449.2	\$21,768.1	\$22,301.6	\$23,413.5	\$23,728.6	\$23,694.4	\$23,694.4	\$24,619.3	\$25,018.0
Other Roads & Related	\$4,444.9	\$4,656.5	\$4,730.8	\$4,832.5	\$4,904.3	\$4,995.3	\$5,089.5	\$5,089.5	\$5,093.5	\$5,094.1
Total (\$000)	\$178,612.3	\$181,184.1	\$184,516.4	\$185,779.5	\$187,392.7	\$188,238.0	\$188,675.0	\$189,104.0	\$191,819.9	\$192,553.0

SERVICE LEVEL (\$/pop & emp)

											Average Service Level
Roads	\$6,489.74	\$6,441.56	\$6,460.32	\$6,354.98	\$6,239.24	\$6,118.74	\$6,063.91	\$6,002.51	\$6,013.21	\$5,957.47	\$6,214.17
Bridges & Culverts	\$1,885.74	\$1,863.84	\$1,829.78	\$1,793.22	\$1,754.47	\$1,719.02	\$1,700.82	\$1,692.61	\$1,677.24	\$1,659.57	\$1,757.63
Sidewalks	\$1,140.83	\$1,148.73	\$1,142.02	\$1,145.43	\$1,176.56	\$1,165.91	\$1,150.66	\$1,137.29	\$1,167.96	\$1,173.12	\$1,154.85
Other Roads & Related	\$242.86	\$249.38	\$248.19	\$248.20	\$246.45	\$245.45	\$247.16	\$244.29	\$241.64	\$238.87	\$245.25
Total (\$/capita and employment)	\$9,759.17	\$9,703.52	\$9,680.31	\$9,541.83	\$9,416.72	\$9,249.11	\$9,162.54	\$9,076.70	\$9,100.05	\$9,029.03	\$9,371.90

LOYALIST TOWNSHIP
CALCULATION OF MAXIMUM ALLOWABLE
ROADS & RELATED

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2011 - 2020	\$9,371.90
Net Population and Employment Growth 2021 - 2030	2,484
Maximum Allowable Funding Envelope	\$23,279,800

APPENDIX C.1.1

TABLE 2

LOYALIST TOWNSHIP
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY: ROADS & RELATED

Service	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs Replacement and BTE Share	Total DC Eligible Costs	DC Eligible Cost		
								Prior Growth	2021- 2030	Other Dev. Related
1.0 ROADS & RELATED										
1.1 Road Work										
1.1.1	Design for Main Street, Bath and Windermere Intersection	2021	\$ 20,000	\$ -	\$ 20,000	\$ 4,000	\$ 16,000	\$ 16,000	\$ -	\$ -
1.1.2	Amherst Drive - Speers West to County 6 Phase 1	2022	\$ 198,300	\$ 150,800	\$ 47,500	\$ -	\$ 47,500	\$ 47,500	\$ -	\$ -
1.1.3	Construction Main Street, Bath and Winderemere Intersection	2024	\$ 1,200,000	\$ -	\$ 1,200,000	\$ 240,000	\$ 960,000	\$ 960,000	\$ -	\$ -
1.1.4	Design Intersection at Speers & Amherst Drive (Collector Road Additional Work)	2026	\$ 20,000	\$ -	\$ 20,000	\$ -	\$ 20,000	\$ 20,000	\$ -	\$ -
1.1.5	Amherst Drive - Speers West to County 6 Phase 2	2027	\$ 1,022,300	\$ 553,900	\$ 468,400	\$ -	\$ 468,400	\$ 28,587	\$ 439,813	\$ -
1.1.6	Amherst Drive - Speers West to County 6 Phase 2 - Twp Portion of Park Frontage (150m)	2027	\$ 97,500	\$ -	\$ 97,500	\$ -	\$ 97,500	\$ -	\$ 97,500	\$ -
1.1.7	Various Growth-Related Roadworks (Road, Curb, Sidewalk - Secondary Plan for 10-year)	Various	\$ 750,000	\$ -	\$ 750,000	\$ -	\$ 750,000	\$ -	\$ 750,000	\$ -
1.1.8	Road Widening - Fencing for Projects	Various	\$ 500,000	\$ -	\$ 500,000	\$ 400,000	\$ 100,000	\$ -	\$ 100,000	\$ -
	Subtotal Road Work		\$ 3,808,100	\$ 704,700	\$ 3,103,400	\$ 644,000	\$ 2,459,400	\$ 1,072,087	\$ 1,387,313	\$ -
1.2 Sidewalks/Multi-Use Pathways										
1.2.1	Odessa STP Site to Pumping Station	2021	\$ 113,000	\$ -	\$ 113,000	\$ -	\$ 113,000	\$ 113,000	\$ -	\$ -
1.2.2	Sir John Johnson (Bath) Sidewalk Extension - Twp's Portion	2021	\$ 9,600	\$ -	\$ 9,600	\$ -	\$ 9,600	\$ 9,600	\$ -	\$ -
1.2.3	Gildersleeve (South End) to Somerset - Connecting Sidewalk	2022	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ 30,000	\$ -	\$ -
1.2.4	Highway 33/Lakeview Park - Connecting Sidewalk	2023	\$ 137,500	\$ -	\$ 137,500	\$ 68,750	\$ 68,750	\$ 68,750	\$ -	\$ -
1.2.5	County Road 2 - Senior's Home East to Henzy	2025	\$ 19,500	\$ -	\$ 19,500	\$ -	\$ 19,500	\$ 19,500	\$ -	\$ -
1.2.6	Cty Rd 6 Multi-Use Pathway - Amherst Dr to Kildare to McDonough	2026	\$ 312,500	\$ -	\$ 312,500	\$ -	\$ 312,500	\$ -	\$ 312,500	\$ -
1.2.7	Cty Rd 6 Multi-Use Pathway - From Existing to South Side of Taylor Kidd Blvd.	2026	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -
1.2.8	Cty Rd 6 Multi-Use Pathway - Cty Rd 6 Conn. Across Taylor Kidd to LEBP Storm Connection	2026	\$ 43,800	\$ -	\$ 43,800	\$ -	\$ 43,800	\$ -	\$ 43,800	\$ -
	Subtotal Sidewalks/Multi-Use Pathways		\$ 815,900	\$ -	\$ 815,900	\$ 68,750	\$ 747,150	\$ 240,850	\$ 506,300	\$ -
1.3 Streetlighting										
1.3.1	Lakeview Lighting Project	2023	\$ 200,000	\$ -	\$ 200,000	\$ 100,000	\$ 100,000	\$ -	\$ 100,000	\$ -
	Subtotal Streetlighting		\$ 200,000	\$ -	\$ 200,000	\$ 100,000	\$ 100,000	\$ -	\$ 100,000	\$ -
1.4 Studies										
1.4.1	Infrastructure Master Plan	2021	\$ 54,000	\$ -	\$ 54,000	\$ -	\$ 54,000	\$ 54,000	\$ -	\$ -
	Subtotal Studies		\$ 54,000	\$ -	\$ 54,000	\$ -	\$ 54,000	\$ 54,000	\$ -	\$ -
1.5 Other Road Projects - Developer or LIC Funded										
1.5.1	Emma Street Design	2021	\$ 35,000	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1.5.2	Emma Street Construction	2022	\$ 650,000	\$ 650,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Subtotal Other Road Projects - Developer or LIC Funded		\$ 685,000	\$ 685,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL ROADS & RELATED			\$ 5,563,000	\$ 1,389,700	\$ 4,173,300	\$ 812,750	\$ 3,360,550	\$ 1,366,937	\$ 1,993,613	\$ -

APPENDIX C.1.1
TABLE 2

LOYALIST TOWNSHIP
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY: ROADS & RELATED

Residential Development Charge Calculation		
Residential Share of 2021-2030 DC Eligible Costs	80%	\$1,594,890
10-Year Growth in Population in New Units		3,031
Unadjusted Development Charge Per Capita (\$)		\$526.23
Non-Residential Development Charge Calculation		
Non-Residential Share of 2021-2030 DC Eligible Costs	20%	\$398,723
10-Year Growth in Square Metres		34,224
Unadjusted Development Charge Per Square Metre		\$11.65
Non-Residential		
<i>Industrial</i>		
Share of Non-Residential Capital Program	30%	\$ 119,617
Growth in Square Metres (2021-2030)		22,270
Unadjusted Development Charge Per Square Metre(\$)		\$ 5.37
<i>Non-Industrial</i>		
Share of Non-Residential Capital Program	70%	\$ 279,106
Growth in Square Metres (2021-2030)		11,953
Unadjusted Development Charge Per Square Metre (\$)		\$ 23.35

Uncommitted Reserve Fund Balance	
Balance as at December 31, 2020	\$1,366,937

APPENDIX C.1.1

TABLE 3

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SERVICES RELATED TO A HIGHWAY
ROADS & RELATED
RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

ROADS & RELATED	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	\$85.9	\$178.0	\$193.8	\$300.4	\$416.6	\$85.0	(\$302.5)	(\$215.3)	(\$115.2)	
2021 - 2030 RESIDENTIAL FUNDING REQUIREMENTS											
- Roads & Related: Non-Inflated	\$68.0	\$68.0	\$148.0	\$68.0	\$68.0	\$473.0	\$497.9	\$68.0	\$68.0	\$68.0	\$1,594.9
- Roads & Related: Inflated	\$68.0	\$69.4	\$154.0	\$72.2	\$73.6	\$522.3	\$560.7	\$78.1	\$79.7	\$81.3	\$1,759.1
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	278	283	291	299	307	316	304	310	318	325	3,031
REVENUE											
- DC Receipts: Inflated	\$144.1	\$149.4	\$156.6	\$164.3	\$172.4	\$181.0	\$177.1	\$184.8	\$192.9	\$201.4	\$1,724.0
INTEREST											
- Interest on Opening Balance	\$0.0	\$3.0	\$6.2	\$6.8	\$10.5	\$14.6	\$3.0	(\$16.6)	(\$11.8)	(\$6.3)	\$9.3
- Interest on In-year Transactions	\$1.3	\$1.4	\$0.0	\$1.6	\$1.7	(\$9.4)	(\$10.5)	\$1.9	\$2.0	\$2.1	(\$7.9)
- Interest Revenue - Roads Payback	\$8.4	\$7.7	\$6.9	\$6.1	\$5.3	\$4.4	\$3.6	\$2.7	\$1.8	\$0.9	\$47.7
- Interest on In-year Transactions (for interim roads funding)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$7.4)	(\$5.0)	(\$1.6)	(\$14.1)
TOTAL REVENUE	\$153.9	\$161.5	\$169.8	\$178.8	\$189.9	\$190.6	\$173.1	\$165.3	\$179.8	\$196.4	\$1,759.1
CLOSING CASH BALANCE	\$85.9	\$178.0	\$193.8	\$300.4	\$416.6	\$85.0	(\$302.5)	(\$215.3)	(\$115.2)	\$0.0	

2021 Adjusted Charge Per Capita

\$518.17

Allocation of Capital Program

Residential Sector	80.0%
Non-Residential Sector	20.0%

Rates for 2021

Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.1.1

TABLE 3

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SERVICES RELATED TO A HIGHWAY
ROADS & RELATED
NON-INDUSTRIAL NON-RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

ROADS & RELATED - NON-INDUSTRIAL	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	\$18.3	\$36.0	\$40.1	\$60.0	\$80.7	\$23.1	(\$46.1)	(\$32.5)	(\$17.0)	
2021 - 2030 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Roads & Related - Non-Industrial: Non-inflated	\$11.9	\$11.9	\$25.9	\$11.9	\$11.9	\$82.8	\$87.1	\$11.9	\$11.9	\$11.9	\$279.1
- Roads & Related - Non-Industrial: Inflated	\$11.9	\$12.1	\$26.9	\$12.6	\$12.9	\$91.4	\$98.1	\$13.7	\$13.9	\$14.2	\$307.8
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	1,240	1,180	1,198	1,222	1,222	1,258	1,138	1,149	1,173	1,173	11,953
REVENUE											
- DC Receipts: Inflated	\$28.4	\$27.6	\$28.6	\$29.7	\$30.3	\$31.8	\$29.4	\$30.3	\$31.5	\$32.1	\$299.8
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.6	\$1.3	\$1.4	\$2.1	\$2.8	\$0.8	(\$2.5)	(\$1.8)	(\$0.9)	\$3.8
- Interest on In-year Transactions	\$0.3	\$0.3	\$0.0	\$0.3	\$0.3	(\$1.6)	(\$1.9)	\$0.3	\$0.3	\$0.3	(\$1.4)
- Interest Revenue - Roads Payback	\$1.5	\$1.3	\$1.2	\$1.1	\$0.9	\$0.8	\$0.6	\$0.5	\$0.3	\$0.2	\$8.3
- Interest on In-year Transactions (for interim roads funding)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$1.3)	(\$0.9)	(\$0.4)	(\$2.6)
TOTAL REVENUE	\$30.2	\$29.8	\$31.1	\$32.5	\$33.7	\$33.8	\$28.9	\$27.2	\$29.5	\$31.2	\$307.8
CLOSING CASH BALANCE	\$18.3	\$36.0	\$40.1	\$60.0	\$80.7	\$23.1	(\$46.1)	(\$32.5)	(\$17.0)	\$0.0	

2021 Adjusted Charge Per Square Metre \$22.92

Allocation of Capital Program

Residential Sector	80.0%
Non-Residential Sector	20.0%
Non-Industrial Sector	70.0%
Industrial Sector	30.0%

Rates for 2021

Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.1.1

TABLE 3

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SERVICES RELATED TO A HIGHWAY
ROADS & RELATED
INDUSTRIAL NON-RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

ROADS & RELATED - INDUSTRIAL	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	\$7.8	\$15.4	\$17.2	\$25.7	\$34.6	\$9.9	(\$19.7)	(\$13.9)	(\$7.3)	
2021 - 2030 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Roads & Related - Industrial: Non-inflated	\$5.1	\$5.1	\$11.1	\$5.1	\$5.1	\$35.5	\$37.3	\$5.1	\$5.1	\$5.1	\$119.6
- Roads & Related - Industrial: Inflated	\$5.1	\$5.2	\$11.5	\$5.4	\$5.5	\$39.2	\$42.0	\$5.9	\$6.0	\$6.1	\$131.9
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	2,310	2,199	2,232	2,277	2,277	2,343	2,120	2,141	2,186	2,186	22,270
REVENUE											
- DC Receipts: Inflated	\$12.2	\$11.8	\$12.2	\$12.7	\$13.0	\$13.6	\$12.6	\$13.0	\$13.5	\$13.8	\$128.5
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.3	\$0.5	\$0.6	\$0.9	\$1.2	\$0.3	(\$1.1)	(\$0.8)	(\$0.4)	\$1.6
- Interest on In-year Transactions	\$0.1	\$0.1	\$0.0	\$0.1	\$0.1	(\$0.7)	(\$0.8)	\$0.1	\$0.1	\$0.1	(\$0.6)
- Interest Revenue - Roads Payback	\$0.6	\$0.6	\$0.5	\$0.5	\$0.4	\$0.3	\$0.3	\$0.2	\$0.1	\$0.1	\$3.6
- Interest on In-year Transactions (for interim roads funding)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.6)	(\$0.4)	(\$0.2)	(\$1.1)
TOTAL REVENUE	\$12.9	\$12.8	\$13.3	\$13.9	\$14.4	\$14.5	\$12.4	\$11.6	\$12.6	\$13.4	\$131.9
CLOSING CASH BALANCE	\$7.8	\$15.4	\$17.2	\$25.7	\$34.6	\$9.9	(\$19.7)	(\$13.9)	(\$7.3)	\$0.0	

2021 Adjusted Charge Per Square Metre \$5.27

Allocation of Capital Program

Residential Sector	80.0%
Non-Residential Sector	20.0%
Non-Industrial Sector	70.0%
Industrial Sector	30.0%

Rates for 2021

Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.1.2

SERVICES RELATED TO A HIGHWAY:

PUBLIC WORKS – BUILDINGS & FLEET

SERVICES RELATED TO A HIGHWAY: PUBLIC WORKS – BUILDINGS & FLEET

The Services Related to a Highway: Public Works – Buildings and Fleet division has responsibility for the maintenance of the storm sewer systems, sidewalks, streets, including winter control, and bridges and culverts.

TABLE 1 HISTORICAL SERVICE LEVELS

The ten-year historical inventory of capital assets for Public Works – Buildings & Fleet includes approximately 54,800 square feet of building space with a replacement value of \$8.09 million. The 9.2 hectares of land associated with the Public Works buildings are valued at \$1.60 million. The fleet owned and operated by the Public Works division staff also add an additional \$8.77 million to the value of the capital assets.

The total value of the Public Works capital infrastructure is estimated to be \$18.46 million. The ten-year historical average service level is \$862.13 per capita and employment, and multiplied by the ten-year forecast of net population and employment growth, results in a maximum allowable of \$2.14 million.

TABLE 2 2021-2030 DEVELOPMENT-RELATED CAPITAL PROGRAM & CALCULATIONS OF THE “UNADJUSTED” DEVELOPMENT CHARGES

The ten-year development-related capital plan for Public Works – Buildings & Fleet is largely related to the garage expansion and cold storage building at a cost of \$3.89 million in 2021 and 2023. The capital program also includes for the acquisition of seven public works vehicles: two sidewalk plows, three pickup trucks, a loader, and a bucket truck for a total cost of \$939,000.

Altogether, the ten-year capital forecast for Public Works – Buildings & Fleet amounts to \$4.83 million. No grants, subsidies or other recoveries have been identified for this service. In total, replacement shares have been identified for the garage expansion and cold storage buildings, and the bucket truck totalling \$897,400. The BTE for the garage expansion relates to costs which the Township is incurring that are unrelated to the expansion of space to expand the servicing capacity but rather updates to the existing building. The Township also

has approximately \$491,200 available in the Public Works DC reserve fund to help offset the cost of the capital program. Another portion of the program, \$1.30 million, is considered to benefit the post-2030 population which can be recovered in subsequent development charge studies. The remaining \$2.14 million is then brought forward to the development charges calculation.

The development-related cost is allocated 80 per cent, or \$1.71 million, against new residential development, and 20 per cent, or \$428,300, against non-residential development. This yields an unadjusted development charge of \$565.27 per capita and \$12.51 per square metre.

TABLE 3 CASH FLOW ANALYSIS

After cash flow consideration, the calculated residential charge increases to \$650.23 per capita and the non-residential charge increases to \$14.31 per square metre.

The following table summarizes the calculation of the Services Related to a Highway: Public Works – Buildings & Fleet development charge.

PUBLIC WORKS - BUILDINGS & FLEET SUMMARY						
10-year Hist. Service Level per capita	2021-2030		Unadjusted		Adjusted	
	Growth-Related Capital Program		Development Charge		Development Charge	
	Total	Net DC Recoverable	\$/capita	\$/Square Metre	\$/capita	\$/Square Metre
\$862.13	\$4,829,700	\$2,141,531	\$565.27	\$12.51	\$650.23	\$14.31

**APPENDIX C.1.2
TABLE 1**

**LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
SERVICES RELATED TO A HIGHWAY
PUBLIC WORKS - BUILDINGS & FLEET
BUILDINGS**

BUILDINGS Name	# of Square Feet										UNIT COST (\$/sq. ft.)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
<i>County Road 6 Site Works Garage</i>											
Sand Dome 1 (County Rd. #6)	8,171	8,171	8,171	8,171	8,171	8,171	8,171	8,171	8,171	8,171	\$40
Sand Dome 2 (County Rd. #6)	6,504	6,504	-	-	-	-	-	-	-	-	\$40
Salt and Sand Shed-2013 (County Rd. #6)	-	-	12,990	12,990	12,990	12,990	12,990	12,990	12,990	12,990	\$60
County Road 6 Works Garage	19,852	19,852	19,852	19,852	19,852	19,852	19,852	19,852	19,852	19,852	\$288
<i>County Road 4 Site (Millhaven)</i>											
Sand Dome (County Rd. #4)	6,362	6,362	6,362	6,362	6,362	6,362	6,362	6,362	6,362	6,362	\$40
Salt Shed (County Rd. #4)	600	600	600	600	600	600	600	600	600	600	\$40
Salt Shed (County Rd. #4)	600	600	600	600	600	600	600	600	600	600	\$40
<i>Amherst Island</i>											
Works Garage - Amherst Island	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	\$190
Storage Shed (Salt)	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$10
Total (sq.ft.)	48,289	48,289	54,775	54,775	54,775	54,775	54,775	54,775	54,775	54,775	
Total (\$000)	\$7,572.9	\$7,572.9	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1	

LAND Name	# of Hectares										UNIT COST (\$/ha)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
County Road 6 Site Works Garage	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53	6.53	\$175,000
County Road 4 Site (Millhaven)	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	\$175,000
Works Garage - Amherst Island	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	\$175,000
Total (ha)	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	
Total (\$000)	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	

**APPENDIX C.1.2
TABLE 1**

**LOYALIST TOWNSHIP
INVENTORY OF CAPITAL ASSETS
SERVICES RELATED TO A HIGHWAY
PUBLIC WORKS - BUILDINGS & FLEET
FLEET**

FLEET AND RELATED EQUIPMENT	# of Municipal Fleet and Related Equipment										UNIT COST (\$/Vehicle)
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Pick Ups (3/4 Ton)	3	3	3	4	4	4	4	3	3	3	\$42,000
Pick Ups (1/2 Ton)	3	3	3	3	3	3	3	3	3	3	\$40,000
Crew Cabs (3/4 Ton)	-	-	1	1	1	2	2	2	2	3	\$46,000
Crew Cabs (1/2 Ton)	-	-	-	1	1	1	1	1	2	3	\$44,000
1 Tons	2	3	3	3	3	3	3	3	4	4	\$70,000
Single Axles Dump Truck	3	3	3	3	3	2	2	2	2	2	\$300,000
Tandem Dump Truck	7	7	7	7	8	9	9	9	8	9	\$300,000
Backhoe	1	1	2	2	2	2	2	2	2	2	\$165,000
Grader	1	1	2	2	2	2	2	2	2	2	\$349,000
Gradall	1	1	1	1	1	1	1	1	1	1	\$348,000
Loader	2	2	2	2	2	2	2	2	2	2	\$228,000
Tractor/Mower	4	4	4	4	4	4	4	3	3	3	\$145,000
Trailers	1	1	1	1	1	1	1	1	3	5	\$28,000
Skid Steer	1	1	1	1	1	1	1	1	1	1	\$42,000
Brush Chipper	-	-	-	-	-	-	2	2	2	2	\$50,000
Sidewalk Plow	3	3	3	3	3	3	5	5	5	5	\$190,000
Street Sweeper	1	1	1	1	1	1	1	1	1	1	\$279,000
Steamer	2	2	2	2	2	2	2	2	2	2	\$20,000
Sander	2	2	2	2	2	2	2	3	3	3	\$10,000
Roller	-	1	1	1	1	1	1	1	1	1	\$128,000
Excavator	-	-	-	-	-	-	-	-	1	1	\$348,000
Cargo Van (3/4 Ton)	1	1	1	1	1	1	1	1	1	1	\$36,000
Attachments	1	1	2	3	3	3	3	3	3	3	\$30,000
Water Tanks	1	1	1	1	1	2	2	2	2	2	\$20,000
Miscellaneous Equipment	2	2	3	4	7	9	9	9	8	12	\$15,000
Total Fleet (#)	42	44	49	53	57	61	65	64	67	76	
Total Fleet (\$000)	\$6,379.0	\$6,577.0	\$7,182.0	\$7,313.0	\$7,658.0	\$7,754.0	\$8,234.0	\$8,057.0	\$8,260.0	\$8,766.0	

**APPENDIX C.1.2
TABLE 1**

**LOYALIST TOWNSHIP
CALCULATION OF SERVICE LEVELS
SERVICES RELATED TO A HIGHWAY
PUBLIC WORKS - BUILDINGS & FLEET**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Historical Population	15,427	15,574	15,723	15,873	16,024	16,177	16,368	16,561	16,756	16,953
Historical Employment	<u>2,875</u>	<u>3,098</u>	<u>3,338</u>	<u>3,597</u>	<u>3,876</u>	<u>4,175</u>	<u>4,224</u>	<u>4,273</u>	<u>4,323</u>	<u>4,373</u>
Total	18,302	18,672	19,061	19,470	19,900	20,352	20,592	20,834	21,079	21,326

INVENTORY SUMMARY (\$000)

Building	\$7,572.9	\$7,572.9	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1	\$8,092.1
Land	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3	\$1,601.3
Fleet	\$6,379.0	\$6,577.0	\$7,182.0	\$7,313.0	\$7,658.0	\$7,754.0	\$8,234.0	\$8,057.0	\$8,260.0	\$8,766.0
Total (\$000)	\$15,553.1	\$15,751.1	\$16,875.3	\$17,006.3	\$17,351.3	\$17,447.3	\$17,927.3	\$17,750.3	\$17,953.3	\$18,459.3

SERVICE LEVEL (\$/capita)

**Average
Service
Level**

Building	\$413.77	\$405.57	\$424.54	\$415.62	\$406.64	\$397.61	\$392.97	\$388.41	\$383.89	\$379.45	\$400.85
Land	\$87.49	\$85.76	\$84.01	\$82.24	\$80.46	\$78.68	\$77.76	\$76.86	\$75.96	\$75.08	\$80.43
Fleet	\$348.54	\$352.24	\$376.79	\$375.60	\$384.82	\$380.99	\$399.86	\$386.72	\$391.86	\$411.05	\$380.85
Total (\$/capita and employment)	\$849.80	\$843.57	\$885.33	\$873.46	\$871.93	\$857.28	\$870.60	\$851.99	\$851.72	\$865.58	\$862.13

**LOYALIST TOWNSHIP
CALCULATION OF MAXIMUM ALLOWABLE
PUBLIC WORKS - BUILDINGS & FLEET**

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2011 - 2020	\$862.13
Net Population and Employment Growth 2021 - 2030	2,484
Maximum Allowable Funding Envelope	\$2,141,531

APPENDIX C.1.2

TABLE 2

LOYALIST TOWNSHIP
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY: PUBLIC WORKS - BUILDINGS & FLEET

Service	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs Replacement and BTE Share	Total DC Eligible Costs	DC Eligible Cost		
								Prior Growth	2021- 2030	Other Dev. Related
2.0 PUBLIC WORKS - BUILDINGS & FLEET										
2.1 Buildings, Land & Furnishings										
2.1.1	Garage Expansion (Approximately 8,000 sq. ft.)	2021	\$ 3,740,700	\$ -	\$ 3,740,700	\$ 814,900	\$ 2,925,800	\$ 491,157	\$ 1,459,343	\$ 975,300
2.1.2	Cold Storage Building	2023	\$ 150,000	\$ -	\$ 150,000	\$ 60,000	\$ 90,000	\$ -	\$ 90,000	\$ -
	Subtotal Buildings, Land & Furnishings		\$ 3,890,700	\$ -	\$ 3,890,700	\$ 874,900	\$ 3,015,800	\$ 491,157	\$ 1,549,343	\$ 975,300
2.2 Fleet										
2.2.1	2 Half Tons and 1 F550	2021	\$ 164,000	\$ -	\$ 164,000	\$ -	\$ 164,000	\$ -	\$ 164,000	\$ -
2.2.2	Loader with Plow & Wing	2023	\$ 350,000	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ -
2.2.3	Bucket Truck/Trailer	2025	\$ 45,000	\$ -	\$ 45,000	\$ 22,500	\$ 22,500	\$ -	\$ 22,500	\$ -
2.2.4	Sidewalk Plow #1	2026	\$ 190,000	\$ -	\$ 190,000	\$ -	\$ 190,000	\$ -	\$ 55,688	\$ 134,312
2.2.5	Sidewalk Plow #2	2030	\$ 190,000	\$ -	\$ 190,000	\$ -	\$ 190,000	\$ -	\$ -	\$ 190,000
	Subtotal Fleet		\$ 939,000	\$ -	\$ 939,000	\$ 22,500	\$ 916,500	\$ -	\$ 592,188	\$ 324,312
TOTAL PUBLIC WORKS - BUILDINGS & FLEET			\$ 4,829,700	\$ -	\$ 4,829,700	\$ 897,400	\$ 3,932,300	\$ 491,157	\$ 2,141,531	\$ 1,299,612

Residential Development Charge Calculation		
Residential Share of 2021-2030 DC Eligible Costs	80%	\$1,713,225
10-Year Growth in Population in New Units		3,031
Unadjusted Development Charge Per Capita (\$)		\$565.27
Non-Residential Development Charge Calculation		
Non-Residential Share of 2021-2030 DC Eligible Costs	20%	\$428,306
10-Year Growth in Square Metres		34,224
Unadjusted Development Charge Per Square Metre		\$12.51

2021 - 2030 Net Funding Envelope	\$2,141,531
Uncommitted Reserve Fund Balance	
Balance as at December 31, 2020	\$491,157

APPENDIX C.1.2

TABLE 3

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SERVICES RELATED TO A HIGHWAY
PUBLIC WORKS - BUILDINGS & FLEET
RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

PUBLIC WORKS - BUILDINGS & FLEET	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	(\$1,148.6)	(\$1,021.0)	(\$1,251.5)	(\$1,110.5)	(\$971.3)	(\$843.7)	(\$663.9)	(\$464.5)	(\$243.7)	
2021 - 2030 RESIDENTIAL FUNDING REQUIREMENTS											
- Public Works - Buildings & Fleet: Non-Inflated	\$1,298.7	\$0.0	\$352.0	\$0.0	\$18.0	\$44.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1,713.2
- Public Works - Buildings & Fleet: Inflated	\$1,298.7	\$0.0	\$366.2	\$0.0	\$19.5	\$49.2	\$0.0	\$0.0	\$0.0	\$0.0	\$1,733.6
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	278	283	291	299	307	316	304	310	318	325	3,031
REVENUE											
- DC Receipts: Inflated	\$180.8	\$187.5	\$196.6	\$206.2	\$216.3	\$227.1	\$222.3	\$231.9	\$242.0	\$252.7	\$2,163.4
INTEREST											
- Interest on Opening Balance	\$0.0	(\$63.2)	(\$56.2)	(\$68.8)	(\$61.1)	(\$53.4)	(\$46.4)	(\$36.5)	(\$25.5)	(\$13.4)	(\$424.5)
- Interest on In-year Transactions	(\$30.7)	\$3.3	(\$4.7)	\$3.6	\$3.4	\$3.1	\$3.9	\$4.1	\$4.2	\$4.4	(\$5.4)
TOTAL REVENUE	\$150.1	\$127.6	\$135.7	\$140.9	\$158.7	\$176.8	\$179.7	\$199.5	\$220.7	\$243.7	\$1,733.6
CLOSING CASH BALANCE	(\$1,148.6)	(\$1,021.0)	(\$1,251.5)	(\$1,110.5)	(\$971.3)	(\$843.7)	(\$663.9)	(\$464.5)	(\$243.7)	\$0.0	

2021 Adjusted Charge Per Capita

\$650.23

Allocation of Capital Program

Residential Sector	80.0%
Non-Residential Sector	20.0%

Rates for 2021

Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.1.2

TABLE 3

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
SERVICES RELATED TO A HIGHWAY
PUBLIC WORKS - BUILDINGS & FLEET
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

PUBLIC WORKS - BUILDINGS & FLEET	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	(\$281.4)	(\$246.7)	(\$301.9)	(\$264.4)	(\$228.8)	(\$196.0)	(\$153.4)	(\$106.8)	(\$55.4)	
2021 - 2030 RESIDENTIAL FUNDING REQUIREMENTS											
- Public Works - Buildings & Fleet: Non-inflated	\$324.7	\$0.0	\$88.0	\$0.0	\$4.5	\$11.1	\$0.0	\$0.0	\$0.0	\$0.0	\$428.3
- Public Works - Buildings & Fleet: Inflated	\$324.7	\$0.0	\$91.6	\$0.0	\$4.9	\$12.3	\$0.0	\$0.0	\$0.0	\$0.0	\$433.4
NEW RESIDENTIAL DEVELOPMENT											
- Growth in Square Metres	3,550	3,379	3,429	3,499	3,499	3,601	3,258	3,289	3,359	3,359	34,224
REVENUE											
- DC Receipts: Inflated	\$50.8	\$49.3	\$51.0	\$53.1	\$54.2	\$56.9	\$52.5	\$54.1	\$56.3	\$57.4	\$535.7
INTEREST											
- Interest on Opening Balance	\$0.0	(\$15.5)	(\$13.6)	(\$16.6)	(\$14.5)	(\$12.6)	(\$10.8)	(\$8.4)	(\$5.9)	(\$3.0)	(\$100.9)
- Interest on In-year Transactions	(\$7.5)	\$0.9	(\$1.1)	\$0.9	\$0.9	\$0.8	\$0.9	\$0.9	\$1.0	\$1.0	(\$1.4)
TOTAL REVENUE	\$43.3	\$34.7	\$36.4	\$37.5	\$40.5	\$45.1	\$42.6	\$46.6	\$51.4	\$55.4	\$433.4
CLOSING CASH BALANCE	(\$281.4)	(\$246.7)	(\$301.9)	(\$264.4)	(\$228.8)	(\$196.0)	(\$153.4)	(\$106.8)	(\$55.4)	(\$0.0)	

2021 Adjusted Charge Per Capita

\$14.31

Allocation of Capital Program

Residential Sector	80.0%
Non-Residential Sector	20.0%

Rates for 2021

Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.2

STORMWATER MANAGEMENT

TECHNICAL APPENDIX

STORMWATER MANAGEMENT TECHNICAL

APPENDIX

Services relating to storm water management are deemed to provide a Township-wide benefit, and as such, are calculated on that basis for the purpose of the development charge. The planning period from 2021-2030 has been used for the purposes of the development charges calculation.

Tables 1 and 2 provide details of the projects included in the Stormwater Management engineered infrastructure development charges calculation. The content of the tables is as follows:

Table 1 Stormwater Management Capital Program 2021-2030

Table 2 Residential and Non-Residential Cash Flow

TABLE 1 2021-2030 DEVELOPMENT-RELATED CAPITAL PROGRAM AND CALCULATION OF UNADJUSTED DEVELOPMENT CHARGES

The development-related capital program for Stormwater Management totals \$1.66 million and includes a provision for a Stormwater Servicing Feasibility Study, the development of stormwater management infrastructure on County Road #6, various storm-related works and developer funded upsizing of Amherst Drive in front of the fire station. In total, developer contributions amount to \$602,500 and a replacement share of \$10,000 has been identified for the Stormwater Servicing Feasibility Study. The Township also has approximately \$130,900 available in the Stormwater Management DC reserve fund to help offset the cost of the capital program. The remaining development-related capital program of approximately \$915,500 is therefore eligible for recovery from development occurring within the 2021-2030 planning period.

The development-related capital costs are allocated 80 per cent, or \$732,400, against residential development and 20 per cent, or \$183,100, against non-residential development based on the shares of residential and non-residential development occurring over the planning period. This yields unadjusted development charge rates of \$241.66 per capita and \$5.35 per square metre, respectively.

TABLE 2 CASH FLOW ANALYSIS

After cash flow considerations, the residential rates increase to \$242.12 per capita and the non-residential rate decreases slightly to \$5.34 per square metre of GFA.

The following table summarizes the calculation of the Stormwater Management development charge:

STORMWATER MANAGEMENT SUMMARY					
2021-2030		Unadjusted		Adjusted	
Growth-Related Capital Program		Development Charge		Development Charge	
Total	Net DC Recoverable	\$/capita	\$/Square Metre	\$/capita	\$/Square Metre
\$1,658,900	\$915,529	\$241.66	\$5.35	\$242.12	\$5.34

APPENDIX C.2
TABLE 1

LOYALIST TOWNSHIP
DEVELOPMENT-RELATED CAPITAL PROGRAM
STORMWATER MANAGEMENT

Service	Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs Replacement and BTE Share	Total DC Eligible Costs	DC Eligible Cost		
								Prior Growth	2021-2030	Other Dev. Related
2.0 STORMWATER MANAGEMENT										
2.1 Studies - Storm Feasibility Study										
2.1.1	Stormwater Servicing Feasibility Study/Infrastructure Master Plan	2021	\$ 59,000	\$ -	\$ 59,000	\$ 10,000	\$ 49,000	\$ 49,000	\$ -	\$ -
	Subtotal Studies - Storm Feasibility Study		\$ 59,000	\$ -	\$ 59,000	\$ 10,000	\$ 49,000	\$ 49,000	\$ -	\$ -
2.2 Urban Stormwater Management										
2.2.1	Amherst Drive - Speers West to County 6 Phase 1	2022	\$ 84,200	\$ 84,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.2.2	County Road 6 - Amherst Drive to Kildare	2026	\$ 255,000	\$ -	\$ 255,000	\$ -	\$ 255,000	\$ 81,871	\$ 173,129	\$ -
2.2.3	Amherst Drive - Speers West to County 6 Phase 2	2027	\$ 590,700	\$ 48,300	\$ 542,400	\$ -	\$ 542,400	\$ -	\$ 542,400	\$ -
2.2.4	Various Storm-Related Works (for secondary plan area)	Various	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ 200,000	\$ -
	Subtotal Urban Stormwater Management		\$ 1,129,900	\$ 132,500	\$ 997,400	\$ -	\$ 997,400	\$ 81,871	\$ 915,529	\$ -
2.3 Other Stormwater Projects - Developer or LIC Funded										
2.3.1	Odessa West Stormwater Management Facility - Twp Contribution	2021	\$ 40,000	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.3.2	Amherst Drive - Upsizing in Front of Fire Station	2027	\$ 430,000	\$ 430,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Subtotal Other Stormwater Projects - Developer or LIC Funded		\$ 470,000	\$ 470,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL STORMWATER MANAGEMENT			\$ 1,658,900	\$ 602,500	\$ 1,056,400	\$ 10,000	\$ 1,046,400	\$ 130,871	\$ 915,529	\$ -

Residential Development Charge Calculation		
Residential Share of 2021-2030 DC Eligible Costs	80%	\$732,423
10 Year Growth in Population in New Units		3,031
Unadjusted Development Charge Per Capita (\$)		\$241.66
Non-Residential Development Charge Calculation		
Non-Residential Share of 2021-2030 DC Eligible Costs	20%	\$183,106
10 Year Growth in Square Metres		34,224
Unadjusted Development Charge Per Square Metre (\$)		\$5.35

Uncommitted Reserve Fund Balance	
Balance as at December 31, 2020	\$130,871

APPENDIX C.2

TABLE 2

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
STORMWATER MANAGEMENT
RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

STORMWATER MANAGEMENT	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	\$52.2	\$108.5	\$169.8	\$236.6	\$309.2	\$231.7	(\$195.8)	(\$137.4)	(\$72.3)	
2021 - 2030 RESIDENTIAL FUNDING REQUIREMENTS											
- Stormwater Management: Non Inflated	\$16.0	\$16.0	\$16.0	\$16.0	\$16.0	\$154.5	\$449.9	\$16.0	\$16.0	\$16.0	\$732.4
- Stormwater Management: Inflated	\$16.0	\$16.3	\$16.6	\$17.0	\$17.3	\$170.6	\$506.7	\$18.4	\$18.7	\$19.1	\$816.8
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	278	283	291	299	307	316	304	310	318	325	3,031
REVENUE											
- DC Receipts: Inflated	\$67.3	\$69.8	\$73.2	\$76.8	\$80.6	\$84.6	\$82.8	\$86.4	\$90.1	\$94.1	\$805.6
INTEREST											
- Interest on Opening Balance	\$0.0	\$1.8	\$3.8	\$5.9	\$8.3	\$10.8	\$8.1	(\$10.8)	(\$7.6)	(\$4.0)	\$16.5
- Interest on In-year Transactions	\$0.9	\$0.9	\$1.0	\$1.0	\$1.1	(\$2.4)	(\$11.7)	\$1.2	\$1.2	\$1.3	(\$5.3)
TOTAL REVENUE	\$68.2	\$72.6	\$78.0	\$83.8	\$89.9	\$93.0	\$79.2	\$76.8	\$83.8	\$91.4	\$816.8
CLOSING CASH BALANCE	\$52.2	\$108.5	\$169.8	\$236.6	\$309.2	\$231.7	(\$195.8)	(\$137.4)	(\$72.3)	\$0.0	

2021 Adjusted Charge Per Capita

\$242.12

Allocation of Capital Program

Residential Sector 80.0%
Non-Residential Sector 20.0%

Rates for 2021

Inflation Rate: 2.0%
Interest Rate on Positive Balances 3.5%
Interest Rate on Negative Balances 5.5%

APPENDIX C.2

TABLE 2

LOYALIST TOWNSHIP
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE
STORMWATER MANAGEMENT
NON-RESIDENTIAL DEVELOPMENT CHARGE
(in \$000)

STORMWATER MANAGEMENT	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	TOTAL
OPENING CASH BALANCE	\$0.0	\$15.2	\$30.3	\$46.6	\$64.1	\$82.5	\$63.4	(\$44.4)	(\$31.0)	(\$16.1)	
2021 - 2030 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Stormwater Management: Non-inflated	\$4.0	\$4.0	\$4.0	\$4.0	\$4.0	\$38.6	\$112.5	\$4.0	\$4.0	\$4.0	\$183.1
- Stormwater Management: Inflated	\$4.0	\$4.1	\$4.2	\$4.2	\$4.3	\$42.6	\$126.7	\$4.6	\$4.7	\$4.8	\$204.2
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	3,550	3,379	3,429	3,499	3,499	3,601	3,258	3,289	3,359	3,359	34,224
REVENUE											
- DC Receipts: Inflated	\$19.0	\$18.4	\$19.1	\$19.8	\$20.2	\$21.2	\$19.6	\$20.2	\$21.0	\$21.4	\$200.0
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.5	\$1.1	\$1.6	\$2.2	\$2.9	\$2.2	(\$2.4)	(\$1.7)	(\$0.9)	\$5.5
- Interest on In-year Transactions	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	(\$0.6)	(\$2.9)	\$0.3	\$0.3	\$0.3	(\$1.4)
TOTAL REVENUE	\$19.2	\$19.2	\$20.4	\$21.7	\$22.8	\$23.5	\$18.9	\$18.0	\$19.6	\$20.9	\$204.2
CLOSING CASH BALANCE	\$15.2	\$30.3	\$46.6	\$64.1	\$82.5	\$63.4	(\$44.4)	(\$31.0)	(\$16.1)	\$0.0	

2021 Adjusted Charge Per Square Metre \$5.34

Allocation of Capital Program	
Residential Sector	80.0%
Non-Residential Sector	20.0%
Rates for 2021	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX D

RESERVE BALANCES

DEVELOPMENT CHARGES RESERVE FUND

The *Development Charges Act* requires that a reserve fund be established for each service for which development charges are collected. Table 1 presents the uncommitted reserve fund balances that are available to help fund the development-related net capital costs identified in the Study. The opening balances of the development charges reserve funds as at December 31, 2020. All of the available reserve fund balances are therefore accounted for in the Study.

As shown on Table 1, the December 31, 2020 total reserve fund balance was approximately \$2.53 million. It is important to note that this amount excludes the negative reserve fund balance for Emergency Services to ensure accurate accountability of the capital program.

The application of the available monies in each of the reserve funds is discussed in the appendix section related to each service. These funds are assigned to projects in the initial years of the capital program for each service. This has the effect of reducing and deferring capital costs brought forward to the development charge calculation and the cash flow analysis.

APPENDIX D

TABLE 1

LOYALIST TOWNSHIP
DEVELOPMENT CHARGE RESERVE FUND BALANCE BY ACCOUNT
YEAR ENDING DECEMBER 31, 2020

Township-Wide Services	Reserve Fund Balance as at December 31, 2020
Emergency Services	\$0
Parks & Recreation	\$348,074
Development-Related Studies	\$195,483
Services Related To A Highway	
Roads & Related*	\$1,366,937
Public Works - Buildings & Fleet	\$491,157
Stormwater Management	\$130,871
Total Development Charge Reserves	\$2,532,522

*An internal loan to Emergency Services of approximately \$526,000 has been identified but not reduced from this amount as it will be paid back within the planning period.

APPENDIX E

COST OF GROWTH ANALYSIS

COST OF GROWTH ANALYSIS

A. ASSET MANAGEMENT PLAN

The *Development Charges Act, 1997* now requires that municipalities complete an Asset Management Plan before passing a development charges by-law. A key function of the Asset Management Plan is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life-cycle.

i. Asset Types

A summary of the future Township-owned assets and estimated useful life assumptions for eligible DC services considered as part of the study are outlined in Table 1. Although all capital assets considered in the study have been identified, not all assets necessitate future replacement or ongoing maintenance activities. Some projects do not relate to the emplacement of a tangible capital asset – some examples include the acquisition of land, recovery of completed projects or the undertaking of development-related studies. These projects/costs do not necessarily require future replacement or ongoing maintenance. Such projects are identified as “not infrastructure” in the table.

It should be noted that the capital cost estimates prepared for each of the projects identified in this section include grouped costs of various individual elements, which, as a stand-alone item, may have its own useful life (ex. New buildings include: HVAC, structural elements, roof, etc.). Accordingly, the average useful life assumptions noted below are applicable to all project components.

TABLE 1 SUMMARY OF TOWNSHIP ASSETS CONSIDERED	
Emergency Services	
▪ Recovery of Completed Projects	▪ Not infrastructure
▪ Buildings	▪ 50 years
▪ Equipment	▪ 20 years
▪ Studies	▪ Not infrastructure
Parks & Recreation	
▪ Buildings – Design	▪ Not infrastructure
▪ Buildings, Land & Furnishings	▪ 50 years
▪ Vehicles & Equipment	▪ 20 years
▪ Parks and Amenities	▪ 20 years
▪ Studies	▪ Not infrastructure

TABLE 1 SUMMARY OF TOWNSHIP ASSETS CONSIDERED	
Public Works: Buildings & Fleet	
▪ Buildings, Land & Furnishings	▪ 50 years
▪ Fleet	▪ 20 years
Development-Related Studies	
▪ Studies	▪ Not infrastructure
Roads & Related	
▪ Roads Hardtop	▪ 50 years
▪ Sidewalks/Multi-Use Pathways	▪ 40 years
▪ Streetlighting	▪ 60 years
▪ Studies	▪ Not infrastructure
▪ Other Roads Projects – Developer or LIC Funded	▪ 50 years

No annual provisions have been identified for Development-Related Studies as the plan updates and studies included are not infrastructure and therefore have no long-term financial requirements.

ii. Annual Provision

When assets require rehabilitation or are due for replacement, the source of funds is limited to reserves or contributions from operating. Capital expenditures to carry out the rehabilitation and replacement of aging infrastructure are not growth-related and are therefore not eligible for funding through development charge revenues or other developer contributions.

Based on the useful life assumptions and the capital cost of acquiring and/or emplacing each asset, a provision for infrastructure replacement has been calculated for both the general and engineered services. Provisions for infrastructure replacement are initially calculated for each asset based on their useful life and the anticipated cost of replacement. The aggregate of all individual provisions form the required annual capital provision. In calculating the annual provisions, a number of assumptions are made to account for inflation (2.0 per cent) and interest (3.5 per cent).

Consistent with the requirements of the DCA, assets that are proposed to be funded under the development charges by-law have been included in the analysis. As a result, the total calculated annual provision for development charge related infrastructure has been netted down to consider the replacement of existing infrastructure or benefit-to-existing development. However, for reference, the annual replacement provisions associated with

the non-development charge funded costs, including costs related to the benefit-to-existing and post-period benefit have also been calculated.

Table 2 provides the calculated annual asset management contribution for both the gross capital expenditures by 2031 and the share related to the 2021-2030 DC recoverable portion. The year 2031 has been included to calculate the annual contribution for the 2021-2030 period as the expenditures in 2030 will not trigger asset management contributions until 2031. As shown in Table 2, by 2031, the Township will need to fund an additional \$254,900 in order to properly fund the full life cycle costs of the new assets related to all services supported under the development charges by-law.

TABLE 2
LOYALIST TOWNSHIP
ANNUAL ASSET MANAGEMENT PROVISION

Service	2021-2030 Capital Program		Calculated AMP Annual Provision by 2031	
	DC Related	Non DC Related*	DC Related	Non DC Related
Emergency Services	\$1,717,000	\$1,503,000	\$12,200	\$30,400
Parks & Recreation	\$3,570,000	\$24,650,000	\$75,700	\$544,800
Development-Related Studies	\$619,000	\$138,000	\$0	\$0
Services Related to a Highway				
Public Works - Buildings & Fleet	\$2,633,000	\$2,197,000	\$71,800	\$57,100
Roads & Related	\$3,361,000	\$2,202,000	\$73,500	\$45,900
Stormwater Management	\$1,046,000	\$613,000	\$21,700	\$13,200
Total	\$12,946,000	\$31,303,000	\$254,900	\$691,400

*Includes costs that will be recovered in future development charges studies (e.g. post-period benefit)

iii. Future Revenue Growth

The calculated annual funding provision should be considered within the context of the Township's projected growth. Over the next ten years, the Township is projected to increase by approximately 1,229 households. In addition, the Township will also add about 489 new employees that will result in approximately 34,224 square metres of additional non-residential building space.

This growth will have the effect of increasing the overall assessment base. This leads to additional user fee and charge revenues to offset the capital asset provisions required to replace the infrastructure proposed to be funded under the development charges by-law. The collection of these funds is intended to be allocated to the Township's reserves for future replacement of these assets.

B. LONG-TERM CAPITAL AND OPERATING IMPACTS

As shown in Table 3, by 2030, the Township's net operating costs are estimated to increase by \$1.02 million for property tax supported services. It is important to note that associated operating costs of major facilities will be reviewed and updated through future studies and plans. Increases in net operating costs will be experienced as facilities undergo expansions of space, such as the Community Hub, addition of new buildings (public works garage), additions to the Township's roadway network and acquisition of fleet.

TABLE 3

LOYALIST TOWNSHIP
SUMMARY OF LONG TERM CAPITAL AND
OPERATING COST IMPACTS FOR ALL SERVICES
(in thousands of constant dollars)

2030	
NET OPERATING IMPACTS	
Emergency Services	\$54.0
Parks & Recreation	\$322.2
Development-Related Studies	\$0.0
Services Related To A Highway	
<i>Roads & Related</i>	<i>\$430.3</i>
<i>Public Works - Buildings & Fleet</i>	<i>\$214.2</i>
Stormwater Management (1)	\$0.0
NET OPERATING IMPACTS	\$1,020.6
LONG-TERM CAPITAL IMPACTS	
Total Net Cost	\$27,255.4
Net Cost From Development Charges	\$10,413.5
Prior Growth Share from DC Reserve Balances (2)	\$2,532.5
Portion for Other Dev. Related Capital (3)	\$3,341.6
Funding From Non-DC Sources	
- Replacement	\$10,967.8
FUNDING FROM NON-DC SOURCES	\$10,967.8

Notes:

(1) No impact

(2) Existing development charge reserve fund balances collected from growth prior to 2021 are applied to fund initial projects in development-related capital forecast.

(3) Post period development-related net capital costs may be eligible for development charge funding in future DC by-laws.

Table 4 summarizes the components of the development-related capital forecast that will require funding from non-DC sources (e.g. property tax). In total, \$10.97 million will need to be financed from non-DC sources over the 2021-2030 planning period and is related to facilities and infrastructure that will benefit the existing community. In addition, \$3.34 million in interim DC financing related to other development related shares of projects may be required. With that said, in order to carry out the capital program debt may be issued for various DC eligible costs to be later be paid for through development charge collections. However, because DC By-laws must be revisited at least every five years, it is difficult to determine the quantum of interim financing that may be necessary. This share of works can also be funded from other growth-related funding mechanisms such as Community Benefit Charges (CBC) should the Township choose to implement a CBC by-law.

Council is made aware of these factors so that they understand the operating and capital costs that will not be covered by DCs as it adopts the development-related capital forecast set out in the study.

TABLE 4
LOYALIST TOWNSHIP
SUMMARY OF DEVELOPMENT CHARGE ELIGIBLE AND INELIGIBLE COSTS

Service	Development-Related Capital Program (2021-2030)				
	Net Municipal Cost (\$000)	Replacement & Benefit to Existing (\$000)	Prior Growth (\$000)	Other Dev. Related (\$000)	Total DC Eligible Costs for Recovery (\$000)
1.0 Emergency Services	\$3,219.2	\$1,502.5	\$0.0	\$0.0	\$1,716.7
2.0 Parks & Recreation	\$13,220.0	\$7,607.6	\$348.1	\$2,042.0	\$3,222.3
3.0 Development-Related Studies	\$756.8	\$137.5	\$195.5	\$0.0	\$423.8
4.0 Services Related To A Highway					
4.1 Roads & Related	\$4,173.3	\$812.8	\$1,366.9	\$0.0	\$1,993.6
4.2 Public Works - Buildings & Fleet	\$4,829.7	\$897.4	\$491.2	\$1,299.6	\$2,141.5
5.0 Stormwater Management	\$1,056.4	\$10.0	\$130.9	\$0.0	\$915.5
TOTAL - ALL SERVICES	\$27,255.4	\$10,967.8	\$2,532.5	\$3,341.6	\$10,413.5

C. THE PROGRAM IS DEEMED FINANCIALLY SUSTAINABLE

In summary, the asset management plan and long-term capital and operating analysis included in this appendix demonstrates that the Township can afford to invest and operate the identified general and engineered services infrastructure over the ten-year planning period.

Importantly, the Township's annual budget review allows staff to continue to monitor and implement mitigating measures should the program become less sustainable.

APPENDIX F

DRAFT 2021 DEVELOPMENT CHARGES BY-LAW
(AVAILABLE UNDER SEPARATE COVER)