

Report

Prepared by Hemson for the County of Essex



Development Charges Background Study

April 22, 2025



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May 5, 2025

Melissa Ryan
Director, Financial Services/Treasurer
County of Essex
360 Fairview Ave West, Suite 202
Essex, ON N8M 1Y6

Dear Ms. Ryan,

Re: County of Essex 2025 Development Charge Background Study

On April 22, 2025, the County of Essex posted a Development Charges Background Study on its website, prepared in accordance with section 10 of the *Development Charges Act*.

This updated version of the study includes tables and accompanying text from Appendix C – Services Related to a Highway that were inadvertently omitted from the originally released study. **The addition of these materials does not affect the development charge rates presented in the original version.**

Yours Truly,

HEMSON Consulting Ltd.

A handwritten signature in black ink, appearing to read "Stefan Krzeczunowicz", with a stylized flourish at the end.

Stefan Krzeczunowicz
Associate Partner

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Executive Summary

Hemson Consulting Ltd. was retained by the County of Essex to prepare a Development Charges (DC) Background Study. In accordance with the Development Charges Act, 1997 (DCA) and its associated Ontario Regulation 82/98 (O. Reg. 82/98), municipalities are authorized to impose development charges on development to help pay for development-related capital costs. This Background Study forms part of the legislative process to adopt a new DC by-law that complies with the applicable legislation.

A. Legislative Context

The 2025 DC Background Study supports the County's process to enact a new development charges by-law in compliance with the DCA and related regulations, including amendments introduced in 2024. The Study has been developed in accordance with all applicable legislative and regulatory requirements.

B. Key Steps in Determining Development-Related Needs

In accordance with the legislation, several key steps are required to calculate development charges. This includes preparing a forecast of future development, establishing historical service levels, determining the increase in need for services arising from development, and allocating appropriate shares of costs to various types of development (e.g. residential and non-residential). These steps ensure that development charges reflect the capital needs arising from growth in a fair and equitable manner.

C. Eligible and Ineligible Costs

Development charges are intended to fund 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 imposes several statutory adjustments and deductions that limit the recoverable amount. These include ineligible costs (e.g. computer equipment, vehicles with a useful life under 7 years); ineligible services (e.g. municipal parking, parkland acquisition); deductions for costs exceeding historical service levels; and statutory exemptions for specific uses (e.g. industrial expansions, affordable housing).

D. Eligible Services with Development-Related Costs

The following County services have been included in the development charge calculations:

- Library Services
- Ambulance Services
- Long-Term Care
- Waste Diversion
- Development-Related Studies
- Services Related to a Highway (i.e. transportation and public works).

E. Development Forecast

The DC Background Study includes a forecast of residential and non-residential development within the County. Two planning periods are used: for General Services, a 10-year period from 2025 to 2034; and a 16-year period from 2025 to 2041 for Engineered Services (i.e. Services Related to a Highway).

The County's development forecast for the 10-year planning period from 2025 to 2034, projects that the County will grow by 25,600 people and 12,600 new occupied dwelling units. The population in new dwelling units is expected to accommodate roughly 32,300 persons.

Over the 16-year planning period to 2041, the County is estimated to growth by 48,600 people and 21,600 new occupied dwelling units. The population in

new dwelling units is estimated to accommodate approximately 55,600 persons.

The employment forecast for the County is forecasted to add approximately 15,900 employees by 2034 and 26,400 employees by 2041. This results in the addition of 1.2 million square metres of new non-residential building space by 2034 and 2.1 million square metres by 2041.

The following is a summary of the projected growth for the County:

County-wide Development Forecast	2024 Estimate	10-Year Planning Period 2025 - 2034		Longer-Term Planning Period 2025 - 2041	
		Growth	Total at 2034	Growth	Total at 2041
Residential					
Occupied Dwellings	74,937	12,557	87,494	21,613	96,550
Population					
Census	209,834	25,576	235,410	48,566	258,400
<i>Population in New Dwellings</i>		<i>32,296</i>		<i>55,588</i>	
Non-Residential					
Place of Work Employment*	71,247	15,912	87,159	26,363	97,610
Non-Residential Building Space (Square Metres)		1,243,550		2,088,600	

* Excludes Work at Home Employment but includes No Fixed Place of Work

F. Calculated Development Charges

Development charge rates have been calculated using a uniform, County-wide cost recovery approach in accordance with the DCA. These rates are based on the projected residential and non-residential growth outlined in the forecast.

The table below presents the calculated County-wide DC rates for both residential and non-residential development.

Calculated County-Wide Development Charges

Service	Residential Charge Per Unit			Non-Residential Charge per Square Metre
	Singles & Semis	Rows and Other Multiples	Apartments	
Library Services	\$155	\$94	\$82	\$0.00
Ambulance Services	\$379	\$230	\$202	\$1.47
Long-Term Care	\$414	\$251	\$220	\$0.00
Waste Diversion	\$242	\$146	\$129	\$0.00
Development-Related Studies	\$23	\$14	\$12	\$0.09
Subtotal - General Services	\$1,213	\$735	\$645	\$1.56
Services Related To A Highway	\$11,743	\$7,110	\$6,250	\$44.78
Subtotal - Engineered Services	\$11,743	\$7,110	\$6,250	\$44.78
TOTAL DEVELOPMENT CHARGE	\$12,956	\$7,845	\$6,895	\$46.34

This 2025 DC Background Study is based on the best available data at the time of preparation. Key inputs and assumptions are subject to change as future capital and operating budgets and plans are approved by County Council. Any excess capacity that is created during the 10-year term of the DC By-law is expected to be considered for recovery through future development charges as part of the capital plans approved by Council during this period.

G. Cost of Growth Analysis

The DC Background Study includes an overview of the long-term capital and operating cost impacts, as well as asset management-related provisions required for the delivery and maintenance of development-related infrastructure. This analysis is a legislative required under the DCA.

H. Draft DC By-law

A draft of the County's 2025 DC By-law will be made available at least two weeks prior to a statutory public meeting held in accordance with the DCA.

1. Introduction

A. Background

The Development Charges Act, 1997 (DCA), together with Ontario Regulation 82/98 (O. Reg. 82/98), enables municipalities to recover development-related capital costs from new development. This 2025 Development Charges Background Study for the County of Essex is presented as part of a process to establish a development charges by-law that complies with this legislation.

Anticipated development within the County will increase the demand for various services. To manage this demand in a fiscally responsible manner, the County wishes to consider implementing development charges to fund capital projects related to growth. Section 12.V.2 of the County Official Plan states that:

County Development Charges are an important financial tool that can be used to help fund the transportation-related infrastructure that will be needed to support the planned growth. These charges, together with grants from other levels of government will be needed to assist with the funding of these major capital projects over the life of this Plan.

The DCA and O. Reg. 82/98 require that a development charge background study be prepared in which development charges are determined with reference to:

- a forecast of the amount, type and location of development anticipated;
- the average capital service levels provided in the County over the 15-year period immediately preceding the preparation of the background study;

- a review of future capital projects, including an analysis of gross expenditures, funding sources, and net expenditures incurred, or to be incurred, by the County to provide for the expected development, including the determination of the eligible and ineligible components of the capital projects;
- an examination of the long-term capital and operating costs for the capital infrastructure required for each service to which the development charges by-laws would relate; and
- an asset management plan to deal with all assets whose capital costs are proposed to be funded under the DC by-law, demonstrating that all assets included in the capital program are financially sustainable over their full life cycle.

This study identifies the development-related net capital costs attributable to development that is forecast to occur in the County. The costs are apportioned to types of development (residential and non-residential) in a manner that reflects the increase in the need for each service attributable to each type of development.

The DCA provides for a period of public review and comment regarding the calculated development charges. Following this review, and in accordance with the DCA, Council will consider this study, any public submissions, and other relevant information brought to its attention about the calculated charges, prior to making a decision on whether to enact a new development charges by-law.

The remainder of this report sets out the methodology, assumptions, and analysis used to calculate the proposed development charges.

B. Legislative Context

The study has been prepared in accordance with the DCA and its regulations, including recent legislative amendments that came into force on November 28, 2022, through Bill 23: the More Homes Built Faster Act, 2022, and Bill 185: the Cutting Red Tape to Build More Homes Act, 2024. Among other provisions, the latter reversed the 5-year mandatory phase-in of DCs enacted under Bill 23 and brought into force exemptions for affordable housing projects that meet legislative conditions. Key legislative changes incorporated into this study include:

- Extension of historical service level standards from a 10 to a 15-year planning period;
- Increased DC by-law expiry period from 5 to 10 years;
- Cap on the amount of interest paid on DC deferrals and DC freeze at prime plus 1%;
- Ineligibility of certain County services, including social housing services, for recovery through DCs;
- Requirement for municipalities to spend or allocate 60% of available DC reserve funds per year for Services Related to a Highway;
- Discounts for purpose-built rental housing based on the number of bedrooms; and
- Exemptions for qualifying Affordable and Attainable housing developments under the DCA.

C. Relevant Analysis

The assumptions and methodologies used in this DC Background Study are based on a range of inputs from the County's capital budget, approved master plans, and consultations with County staff.

2. A County-Wide Methodology Aligns Development-Related Costs and Benefits

Several key steps are required in calculating a development charge. However, specific circumstances arise in each municipality which must be reflected in the calculation. In this study, therefore, we have tailored our approach to the County of Essex's unique characteristics. The approach to the calculated development charges is focused on providing a reasonable alignment of development-related costs with the development that necessitates them.

A. A County-Wide Development Charge is Proposed for All Services

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

For the services that the County provides, a range of capital facilities, land, equipment and infrastructure is available throughout the County: libraries, ambulance, arterial roads, and so on. All residents in the County have access to all facilities. As new development occurs, new facilities will need to be added such that overall service levels do not decline. A widely accepted method for sharing the development-related capital costs for such

services is to apportion them over all new development anticipated in the County.

The following services are included in the County-wide DC calculation:

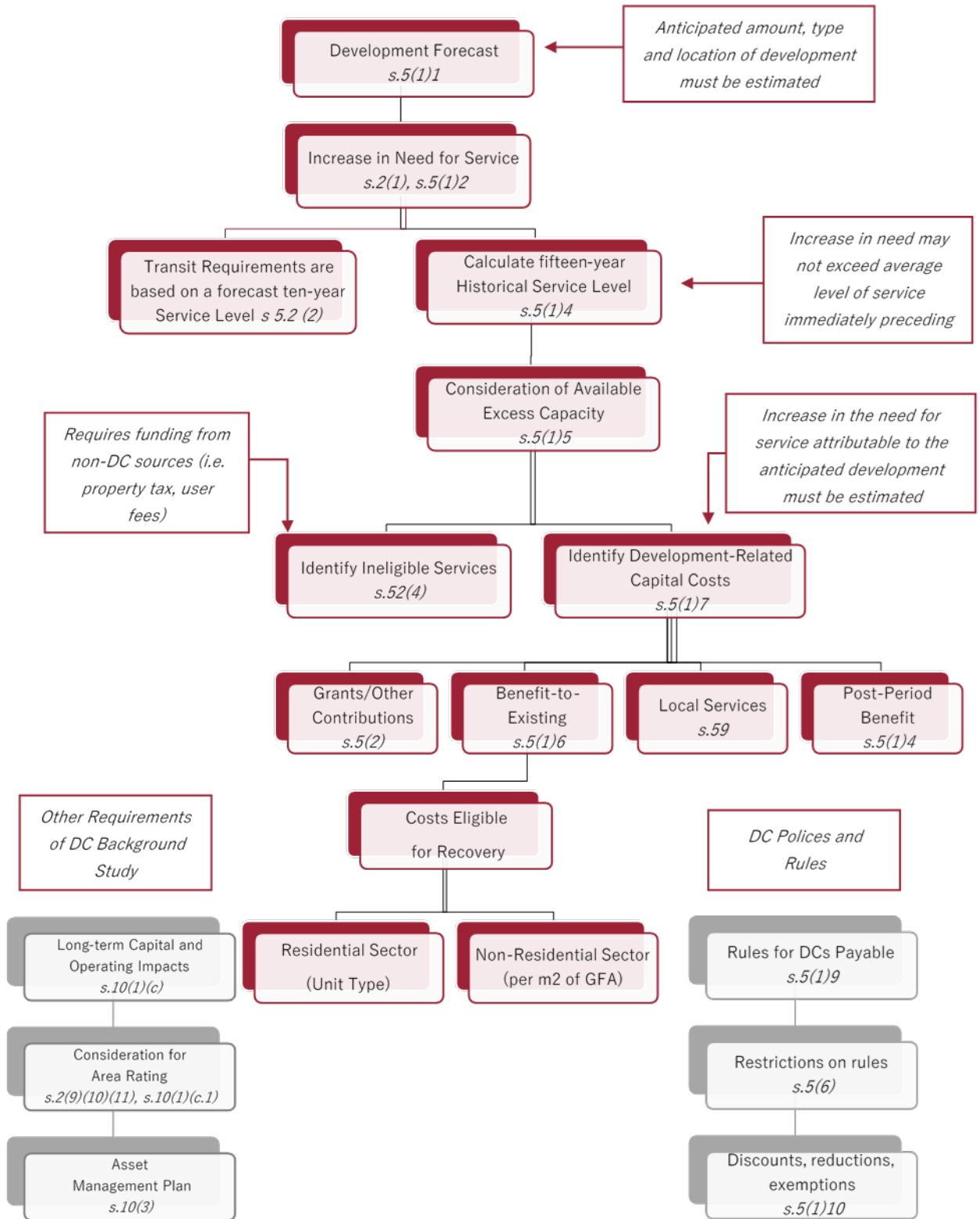
- Library Services;
- Ambulance Services;
- Long-Term Care;
- Waste Diversion;
- Development-Related Studies; and
- Services Related to a Highway (including Roads & Related Works and Public Works Buildings and Fleet).

These services form a reasonable basis upon which to plan and administer the County-wide DCs. It is noted that the analysis of each of these services examines the individual capital facilities and equipment currently in place. The resulting DC for these services is to be imposed against all development anywhere in the County.

B. Key Steps in Determining Development Charges for Future Development-Related Projects

Several key steps are required in calculating DCs for future development-related projects. These are summarized in Figure 1 below and discussed further in the following sections.

Figure 1: Overview of DC Background Study Process



C. Development Forecast

The first step in the methodology requires a development forecast to be prepared for the 10-year study period, 2025 to 2034, for all general services. For engineered services, a 16-year study to 2041 has been prepared. The forecast of future residential and non-residential development used in this study was prepared by Hemson in consultation with the staff. The forecast has been informed by the recently-approved County of Essex Official Plan, and accounts for historical and recent construction trends.

For the residential portion of the forecast both the census population growth and population growth in new units is estimated. Net population growth determines the need for additional facilities and provides the foundation for the development-related capital program.

The non-residential portion of the forecast estimates the gross floor area (GFA) of building space to be developed over the 10-year and 16-year study periods. The forecast of GFA is based on the employment forecast for the County. Factors for floor space per worker by category are used to convert the employment forecast into GFA for the purposes of the DC study.

D. Service Categories and Historical Service Levels

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

... must not include an increase that would result in the level of service exceeding the average level of that service provided in the municipality over the 15-year period immediately preceding the preparation of the background study...(s. 5. (1) 4.)

Historical 15-year average service levels thus form the basis for the general services development charges. A review of the County'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 2010 to 2024.

E. Development-Related Capital Program and Analysis of DC Eligible Costs to be Recovered through Development Charges

A development-related capital program has been prepared by County staff as part of the study. The program identifies development-related projects and their gross and net municipal costs, after allowing for capital grants, subsidies or other recoveries as required by legislation (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 municipality 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, the provisions have the effect of requiring that the development charge be calculated on the lesser of the historical 15-year average service levels or the service levels embodied in future plans of the County. The development-related capital program 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, O. Reg. 82/98, s. 3 states that:

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

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

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 to partially meet future servicing requirements. Adjustments are made in the analysis to meet this requirement of the DCA.

F. 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 (i.e. based on shares of population in new units and employment growth).

Finally, the residential component of the County-wide charge is applied to different housing types based on average occupancy factors. The non-residential component is applied on the basis of gross building space (GFA) in square metres for non-residential development.

G. Final Adjustment

The final determination of the development charges results from adjustments made to development-related DC eligible costs for each service and sector resulting from the application of any unallocated development-related reserve fund balances that are available to fund the development-related capital costs in the capital program.

3. Development Forecast

This section summarizes the development forecasts used to calculate development charges for the County of Essex. Appendix A contains additional material related to the development forecast and the County's demographics.

A. Residential Forecast

Development charges are levied on residential development as a charge per new unit. Therefore, for the residential forecast, a projection of both the population growth 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 development charge, 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 development charges will be collected.

Table 1 provides a summary of the residential forecast over the 10-year and 16-year planning periods. The 10-year planning period from 2025 to 2034 is used for all general services. The 16-year planning period from 2025 to 2041 is used for engineered services.

Over the planning period from 2025 to 2034, the total number of new residential units will increase by approximately 12,600, which translates into a population in new units of approximately 32,300. From 2025 to 2041, the total number of new residential units will increase by 21,600, which translates into a population in new units of 55,600. The population in new units was derived by using data from Statistics Canada analysing household sizes in recently constructed units.

A summary of the residential growth forecast can be found in Table 1.

B. Non-Residential Growth Forecast

Development charges are levied on non-residential development as a charge per square metre of 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 municipality.

The non-residential forecast projects an increase of approximately 15,900 employees to 2034 and 26,400 by 2041, which will be accommodated in 1.2 million square metres of new non-residential building space in 2034 and 2.1 million square metres in 2041.

A summary of the non-residential growth forecast can be found in Table 1.

TABLE 1
COUNTY OF ESSEX
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT FORECAST

County-wide Development Forecast	2024 Estimate	10-Year Planning Period 2025 - 2034		Longer-Term Planning Period 2025 - 2041	
		Growth	Total at 2034	Growth	Total at 2041
Residential					
Occupied Dwellings	74,937	12,557	87,494	21,613	96,550
Population					
Census	209,834	25,576	235,410	48,566	258,400
<i>Population in New Dwellings</i>		<i>32,296</i>		<i>55,588</i>	
Non-Residential					
Place of Work Employment*	71,247	15,912	87,159	26,363	97,610
Non-Residential Building Space (Square Metres)		1,243,550		2,088,600	

* Excludes Work at Home Employment but includes No Fixed Place of Work

4. Summary of Historical Capital Service Levels

The DCA and O. Reg. 82/98 require that the development charges be set at a level no higher than the average service level provided in the County over the 15-year period immediately preceding the preparation of the background study, on a service-by-service basis.

For non-engineered services, or general services, the legislative requirement is met by documenting historical service levels for the preceding 15 years; in this case, for the period 2010 to 2024. Typically, service levels for general services are measured as a ratio of inputs per capita or per capita and 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. For most services, the typical approach to addressing 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 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 County. Both the quantitative and qualitative aspects of service levels used in the present analysis are based on information provided by County staff based on historical records and their experience with costs to acquire or construct similar facilities, equipment and infrastructure.

Table 2 summarizes service levels for all County-wide services included in the development charge calculation (excluding Development-Related Studies). Appendix B and C provide detailed historical inventory data upon which the calculation of service levels is based.

TABLE 2
COUNTY OF ESSEX
SUMMARY OF AVERAGE HISTORICAL SERVICE LEVELS

Service	2010 - 2024 Service Level Indicator
1.0 LIBRARY SERVICES	\$99.34 per capita
Buildings	\$28.85 per capita
Land	\$0.85 per capita
Materials	\$59.07 per capita
Furniture & Equipment	\$9.99 per capita
Vehicles	\$0.57 per capita
2.0 AMBULANCE SERVICES	\$166.90 per pop & emp
Buildings	\$112.47 per pop & emp
Land	\$1.18 per pop & emp
Vehicles	\$31.77 per pop & emp
Furniture, Equipment & Other	\$21.47 per pop & emp
3.0 LONG-TERM CARE	\$594.01 per capita
Buildings	\$546.61 per capita
Land	\$20.86 per capita
Furniture, Equipment & Other	\$26.54 per capita
4.0 WASTE DIVERSION	\$92.24 per capita
Buildings	\$46.17 per capita
Land	\$16.08 per capita
Furniture & Equipment	\$10.46 per capita
Vehicles	\$19.53 per capita
5.0 SERVICES RELATED TO A HIGHWAY	\$3,952.44 per pop & emp
Buildings - Public Works	\$67.24 per pop & emp
Land - Public Works	\$18.74 per pop & emp
Equipment	\$28.82 per pop & emp
Vehicles	\$51.63 per pop & emp
Land - Roads	\$1,445.69 per pop & emp
County Roads	\$949.48 per pop & emp
Signals & Crossings	\$11.69 per pop & emp
Roundabouts	\$38.02 per pop & emp
Active Transportation	\$245.81 per pop & emp
Bridges & Culverts	\$1,095.31 per pop & emp

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 incorporated in the development charges calculation. As noted in Section II, O. Reg. 82/98, s. 3 states that:

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

A. A Development-Related Capital Program

Based on the development forecasts summarized in Section 3 and detailed in Appendix A, County staff, in collaboration with the consultants have created a development-related capital forecast setting out those projects that are required to service anticipated development. For general services, the capital plan covers the planning period from 2025 to 2034. For engineered services, the capital plan covers the planning period from 2025 to 2041.

One of the recommendations contained in this Background Study is for Council to adopt the capital forecast created for the purposes of the DC calculation. It is assumed that future projects contained herein, that are consistent with the development occurring in the County. It is acknowledged that changes to the forecast presented herein may occur through the County'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 separate total for services analyzed over the 10-year planning period, 2025 – 2034. Further details on the capital program for each individual service category are available in Appendix B and Appendix C.

TABLE 3

COUNTY OF ESSEX
SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM
2025 - 2034
(in \$000)

Service	Gross Cost	Grants/Subsidies/ Other Recoveries	Net Municipal Cost
1.0 LIBRARY SERVICES	\$1,510.7	\$0.0	\$1,510.7
2.0 AMBULANCE SERVICES	\$65,040.0	\$32,520.0	\$32,520.0
3.0 LONG-TERM CARE	\$6,719.8	\$0.0	\$6,719.8
4.0 WASTE DIVERSION	\$49,199.6	\$24,350.0	\$24,849.6
5.0 DEVELOPMENT-RELATED STUDIES	\$440.0	\$0.0	\$440.0
SUBTOTAL - GENERAL SERVICES	\$122,910.1	\$56,870.0	\$66,040.1

The development-related capital program for all services has a total gross cost of \$122.9 million. Grants, subsidies or other contributions in the amount of \$56.9 million have been identified for Ambulance Services and Waste Diversion. This represents costs borne by the City of Windsor as part of cost sharing agreements. The net municipal cost of the capital program is \$66.0 million.

This capital program incorporates those projects identified to be related to development anticipated in the next 10 years. It is not implied that all of these costs are to be recovered from new development by way of development charges. In the next background study, portions of the capital program may relate to providing servicing for development which has occurred prior to 2025 (for which development charge reserve fund balances exist). Replacement of existing capital facilities, or for development anticipated to occur beyond the 2025 – 2034 planning period, are also ineligible for development charge funding.

Of the \$66.0 million in 10-year net municipal capital costs, \$32.5 million (49%) is related to the provision of Ambulance Services. This amount provides for a number of significant capital investments, including a new Hub Headquarters and 2 Substations, gear for new employees, vehicles, and studies and master plans.

Approximately 38% or \$24.8 million of the net municipal capital costs is related to the expansion of Waste Diversion services including the construction and acquisition of an Organic Waste Processing Facility, Organic Transfer Station, and additional organic waste collection vehicles.

The County's Long-Term Care service is developing plans to acquire land and reconstruct the Sun Parlor Home facility. The net municipal cost of the development-related share of this work is estimated at \$6.7 million.

The Library Services capital program focuses on the acquisition of new collection materials over the 2025 – 2034 planning period. The net municipal cost for this program is \$1.5 million.

The portion of the County’s capital program which relates to the provision of Development-Related Studies has a net municipal cost of \$440,000. This service includes planning studies, development charge studies, and regional growth projection studies.

C. The Development-Related Capital Forecast for Engineered Services

Table 4 provides the development-related capital costs for engineered services. The capital program totals \$715.1 million and provides servicing for anticipated development over the planning period from 2025 to 2041. Grants or subsidies in the amount of \$21.1 million, provided by local municipal partners to fund portions of the active transportation expansion program, have been identified. Therefore, the net municipal cost of the capital program is \$693.9 million.

The projects identified in the capital program are required to service the demands of new development between 2025 and 2041, subject to annual capital budget reviews, and align with the County’s long-term capital plan funding model and the County-Wide Active Transportation Study (CWATS) Master Plan.

Projects identified in the capital program include those required to expand the capacity of the County road network through investments in active transportation, environmental assessments, property acquisition, detailed design, construction, intersection improvements, etc. Details on the individual capital works in the program, including project costs, timing, and distribution of benefits are provided in Appendix C.

TABLE 4

COUNTY OF ESSEX
SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM
2025 - 2041
(in \$000)

Service	Gross Cost	Grants/Subsidies/ Other Recoveries	Net Municipal Cost
1.0 SERVICES RELATED TO A HIGHWAY	\$715,053.8	\$21,140.6	\$693,913.3
SUBTOTAL -ENGINEERED SERVICES	\$715,053.8	\$21,140.6	\$693,913.3

6. Development Charges are Calculated in Accordance with the DCA

This section summarizes the calculation of development charges for each service category and the resulting total development charge by type of development.

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

It is noted that the calculation of the County-wide development charges does not include any provision for statutory exemptions required under the DCA such as exemptions for enlargements of up to 50 per cent on existing industrial buildings or for affordable housing. Such legislated exemptions, or other exemptions or reductions which Council may choose to provide, will result in a loss of development charge revenue for the affected types of development. Any such revenue loss may not be made up, however, by offsetting increases in other portions of the calculated charge.

A. Development Charge Calculation for General Services

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

i. General Services

The net capital forecast for the general services totals \$66.0 million and incorporates those projects identified to be related to development anticipated in the next 10 years. However, not all of the capital costs are to be recovered from new development by way of DCs. As shown on Table 5, \$51.7 million relates to replacement of existing capital facilities or for shares of projects that provide benefit to the existing community. This is mostly attributed to the Ambulance Services and Waste Diversion. These portions of capital costs will have to be funded from non-DC revenue sources, largely property taxes.

A share of approximately \$575,500 is attributable to development beyond 2034. This development-related share has been removed from the DC calculation though it may be recovered under future DC studies.

The total costs eligible for recovery through DCs for general services is \$13.8 million. This amount is allocated between the residential and non-residential sectors to derive the DC rates. Library, Long-Term Care, and Waste Diversion are deemed to benefit residential development only, while the remaining services are allocated between both sectors based on shares of population in new units and employment growth in new space. The allocation to the residential sector for these services is calculated at 67%, with 33% allocated to the non-residential sector.

Approximately \$11.8 million of the general services DC eligible capital program is deemed to benefit residential development. When this amount is divided by the 10-year growth in population in new dwelling units (32,300), a charge of \$366.52 per capita is the result. The non-residential share totals \$1.9 million which yields an unadjusted charge of \$1.56 per square metre when divided by the 10-year increase in non-residential building space (1.2 million square metres).

TABLE 5

COUNTY OF ESSEX
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
10-YEAR CAPITAL PROGRAM FOR GENERAL SERVICES
in (\$000)

10 Year Growth in Population in New Units	32,296
10 Year Growth in Square Metres	1,243,550

Service	Development-Related Capital Program (2025 - 2034)							
	Net Municipal Cost (\$000)	Replacement & Benefit to Existing (\$000)	Post-2034 (\$000)	Total DC Eligible Costs for Recovery (\$000)	Residential Share		Non-Residential Share	
					%	(\$000)	%	(\$000)
1.0 LIBRARY SERVICES	\$1,510.7	\$0.0	\$0.0	\$1,510.7	100%	\$1,510.7	0%	\$0.0
Unadjusted Development Charge per Capita						\$46.78		
Unadjusted Development Charge per Square Metre								\$0.00
2.0 AMBULANCE SERVICES	\$32,520.0	\$26,996.9	\$0.0	\$5,523.0	67%	\$3,700.1	33%	\$1,823.0
Unadjusted Development Charge per Capita						\$114.57		
Unadjusted Development Charge per Square Metre								\$1.47
3.0 LONG-TERM CARE	\$6,719.8	\$2,680.6	\$0.0	\$4,039.2	100%	\$4,039.2	0%	\$0.0
Unadjusted Development Charge per Capita						\$125.07		
Unadjusted Development Charge per Square Metre								\$0.00
4.0 WASTE DIVERSION	\$24,849.6	\$21,915.0	\$575.5	\$2,359.1	100%	\$2,359.1	0%	\$0.0
Unadjusted Development Charge per Capita						\$73.05		
Unadjusted Development Charge per Square Metre								\$0.00
5.0 DEVELOPMENT-RELATED STUDIES	\$440.0	\$100.0	\$0.0	\$340.0	67%	\$227.8	33%	\$112.2
Unadjusted Development Charge per Capita						\$7.05		
Unadjusted Development Charge per Square Metre								\$0.09
TOTAL - GENERAL SERVICES	\$66,040.1	\$51,692.5	\$575.5	\$13,772.1		\$11,836.9		\$1,935.2
Unadjusted Development Charge per Capita						\$366.52		
Unadjusted Development Charge per Square Metre								\$1.56

ii. Engineered Services

Table 6 displays the calculation of the DC rates for the engineered Services Related to a Highway. The development-related engineering infrastructure will be used to service development in the County of Essex between 2025 to 2041.

The net capital forecast for engineered services totals \$693.9 million. This amount is not to be recovered in full by way of development charges. Table 6 shows that approximately \$354.4 million of the capital program relates to shares of projects that provide benefit to the existing community. This amount has been netted off the chargeable capital costs. Post-period shares of \$48.8 million have been calculated for many engineered servicing projects.

The remaining \$290.7 million is related to development in the 2025 to 2041 planning period and has been included in the DC calculation.

The capital program eligible for recovery through DCs is allocated 68% to the residential sector and 32% to the non-residential sector based on future shares of population in new units and employment growth over the planning period.

As a result, approximately \$197.2 million of the engineered services capital program is deemed to benefit residential development. When this amount is divided by the growth in population in new dwelling units for each service (55,600) a charge of \$3,547.32 per capita is the result. The non-residential share totals \$93.6 million which yields an unadjusted charge of \$44.78 per square metre when divided by the 16-year increase in non-residential building space (2.1 million square metres).

TABLE 6

COUNTY OF ESSEX
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
16-YEAR CAPITAL PROGRAM FOR ENGINEERED SERVICES
in (\$000)

Growth in Population in New Units to 2041	55,588
Growth in Square Metres to 2041	2,088,600

Service	Development-Related Capital Program (2025 - 2041)							
	Replacement &		Total DC Eligible					
	Net Municipal Cost (\$000)	Benefit to Existing (\$000)	Post-2041 (\$000)	Costs for Recovery (\$000)	Residential Share %	(\$000)	Non-Residential Share %	(\$000)
1.0 SERVICES RELATED TO A HIGHWAY Unadjusted Development Charge per Capita Unadjusted Development Charge per Square Metre	\$693,913.3	\$354,424.1	\$48,783.3	\$290,705.8	68%	\$197,187.9 \$3,547.32	32%	\$93,517.9 \$44.78
TOTAL - ENGINEERED SERVICES	\$693,913.3	\$354,424.1	\$48,783.3	\$290,705.8		\$197,187.9		\$93,517.9
Unadjusted Development Charge per Capita Unadjusted Development Charge per Square Metre						\$3,547.32		\$44.78

B. Residential and Non-Residential Development Charges

Table 7 summarizes the residential DC rates. As shown in the table, the calculated residential charge ranges from \$12,956 for single and semi-detached units, to \$7,845 for rowhouses and other multiple dwelling types, to \$6,895 for apartments. More than 90% of the calculated residential charges are for Services Related to a Highway.

The calculated non-residential development charges rates are presented in Table 8. The calculated rate for all types of non-residential development is \$46.34 per square metre, 97% of which is related to Services Related to a Highway.

TABLE 7

COUNTY OF ESSEX
COUNTY-WIDE DEVELOPMENT CHARGES
RESIDENTIAL DEVELOPMENT CHARGES

Service	Charge per Capita	Residential Charge by Unit Type (1)		
		Residential A Singles & Semis	Residential B Rows and Other Multiples	Residential C Apartments
Library Services	\$46.78	\$155	\$94	\$82
Ambulance Services	\$114.57	\$379	\$230	\$202
Long-Term Care	\$125.07	\$414	\$251	\$220
Waste Diversion	\$73.05	\$242	\$146	\$129
Development-Related Studies	\$7.05	\$23	\$14	\$12
Subtotal - General Services	\$366.52	\$1,213	\$735	\$645
Services Related To A Highway	\$3,547.32	\$11,743	\$7,110	\$6,250
Subtotal - Engineered Services	\$3,547.32	\$11,743	\$7,110	\$6,250
TOTAL CHARGE PER UNIT	\$3,913.84	\$12,956	\$7,845	\$6,895
(1) Based on a PPU of:		3.31	2.00	1.76

TABLE 8

COUNTY OF ESSEX
COUNTY-WIDE DEVELOPMENT CHARGES
NON-RESIDENTIAL DEVELOPMENT CHARGES

Service	Non-Residential Charge per Square Metre
Library Services	\$0.00
Ambulance Services	\$1.47
Long-Term Care	\$0.00
Waste Diversion	\$0.00
Development-Related Studies	\$0.09
Subtotal - General Services	\$1.56
Services Related To A Highway	\$44.78
Subtotal - Engineered Services	\$44.78
TOTAL CHARGE PER SQUARE METRE	\$46.34

7. Cost of Growth Analysis

This section describes the cost of growth analysis for the capital facilities and infrastructure identified in the 10-year capital program for general services and 16-year capital program for engineered services as it relates to the assets included in the DC Background Study. The objective of the analysis is to examine the impact of development-related infrastructure needs on the property tax base. The analysis considers both capital and operating implications.

A. Long-Term Capital and Operating Impact Analysis

This section provides a brief examination of the long-term capital and operating costs for the capital facilities and infrastructure to be included in the development charges by-law. This examination is required as one of the features of the DCA.

i. Net Operating Costs for the County's Tax Supported Services to Increase over the Forecast Period

Table 9 summarizes the estimated increase in net operating costs that the County will experience for additions associated with the planned capital program. The estimated changes in net operating costs are based on the financial information from the County and from Financial Information Returns (FIR). Additional details are included in Appendix D.

As shown in Table 9, by 2034 the County's net operating costs for services is based on a 10-year planning horizon estimated to increase by approximately \$19.6 million for general services and \$1.5 million for engineered services. The most significant portion of this increase relates to additional operating expenses for new staff and vehicles for Ambulance Services.

**ii. Long-Term Capital Funding From Non-Development Charges
Totals \$304.5 Million**

Table 10 summarizes the components of the development-related capital forecast that will require funding from non-development sources. In total, the net municipal costs for both engineered and general services amounts to \$760.0 million.

Long-term capital funding from non-development charge sources is estimated at \$406.1 million. This includes, for general services, approximately \$51.7 million and, for engineered services, approximately \$354.4 million related to replacement of existing County facilities or for benefit to existing shares. Additionally, approximately \$49.4 million will require interim financing to cover development-related costs that benefit development beyond the 10-year and 16-year planning periods. Most of this post-period benefiting costs relate to Services Related to a Highway.

TABLE 9

COUNTY OF ESSEX
COST OF GROWTH ANALYSIS
ESTIMATED NET OPERATING COST OF THE PROPOSED DEVELOPMENT RELATED CAPITAL PROGRAM
(in constant 2025 dollars)

General Services	Cost Driver (\$)	Unit Measure	Quantity	Additional Operating Costs at 2034	Source & Commentary
Library Services		No additional operating costs			N/A
Ambulance Services					
<i>New staff and vehicles (total)</i>				\$ 15,292,577	Based on Essex-Windsor EMS Master Plan Update staff report, p. 101
<i>New staff and vehicles (development-related share)</i>				\$ 2,597,222	Based on BTE shares in Appendix B
Long-Term Care	\$ 180	per sq.ft. of new space	6,000	\$ 1,080,000	Based on 2023 FIR & 2025 DC Study
Waste Diversion	\$ 0.10	per \$1.00 value of asset	6,719,775	\$ 671,978	Based on 2023 FIR & 2025 DC Study
Development-Related Studies		No additional operating costs			N/A
Total				\$ 19,641,777	

Engineered Services	Cost Driver (\$)	Unit Measure	Quantity	Additional Operating Costs at 2041	Source & Commentary
Services Related To A Highway	\$68	per household	21,613	\$ 1,466,366	Based on 2023 FIR & 2025 DC Study
Total				\$ 1,466,366	

TABLE 10
COUNTY OF ESSEX
LONG-TERM CAPITAL FINANCING FROM NON-DC SOURCES
in (\$000)

General Services	Development-Related Capital Program (2025-2034)			
	Net Municipal Cost	Replacement & Benefit to Existing	Post-2034 Benefit	Total DC Eligible Costs for Recovery
Library Services	\$ 1,510.7	\$ -	\$ -	\$ 1,510.7
Ambulance Services	\$ 32,520.0	\$ 26,996.9	\$ -	\$ 5,523.0
Long-Term Care	\$ 6,719.8	\$ 2,680.6	\$ -	\$ 4,039.2
Waste Diversion	\$ 24,849.6	\$ 21,915.0	\$ 575.5	\$ 2,359.1
Development-Related Studies	\$ 440.0	\$ 100.0	\$ -	\$ 340.0
TOTAL - GENERAL SERVICES (2025-2034)	\$ 66,040.1	\$ 51,692.5	\$ 575.5	\$ 13,772.1

Engineered Services	Development-Related Capital Program (2025-2041)			
	Net Municipal Cost	Replacement & Benefit to Existing	Post-2041 Benefit	Total DC Eligible Costs for Recovery
Services Related To A Highway	\$ 693,913.3	\$ 354,424.1	\$ 48,783.3	\$ 290,705.8
TOTAL - ENGINEERED SERVICES (2025-2041)	\$ 693,913.3	\$ 354,424.1	\$ 48,783.3	\$ 290,705.8

TOTAL GENERAL & ENGINEERED SERVICES	\$ 759,953.37	\$ 406,116.63	\$ 49,358.85	\$ 304,477.89
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B. Asset Management Plan

The DCA requires that municipalities complete an Asset Management Plan (AMP) before the passing of a development charges by-law. A key function of the AMP is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life cycle. Further details relating to the AMP are discussed in Appendix D.

i. Annual Capital Provisions for Tax and Rate Supported Assets

Table 11 summarizes the annual capital provisions required to replace the development eligible and ineligible costs associated with the capital infrastructure identified in the DC Study. The estimate is based on information obtained through the County's AMP as well as discussions with staff regarding useful life assumptions and the capital cost of acquiring and/or emplacing each asset.

Table 11 illustrates that by 2035 (for general services), the County will need to fund an additional \$540,600 per annum in order to properly fund the full life cycle costs of the new services assets supported under the proposed DC by-law. For engineered services, by 2041 the County will need to fund an additional \$6.4 million per annum in order to properly fund the full life cycle costs of the new services assets supported under the proposed DC by-law.

ii. Future Revenue Growth

The calculated annual funding provision should be considered within the context of the County's projected growth. The County is projected to increase by 32,300 persons in new households by 2034, and 55,600 persons in new households by 2041. In addition, the County will also add roughly 15,900 new employees by 2034 and 26,400 new employees by 2041 that will result in approximately 1.2 million square metres and 2.1 million square metres of additional non-residential building space by 2034 and 2041, respectively.

This growth will have the effect of increasing the overall assessment base and additional user fee and charges revenues to offset the capital asset provisions required to replace the infrastructure proposed to be funded under the proposed DC by-law.

iii. Assets are Deemed to be Financially Sustainable

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

TABLE 11
COUNTY OF ESSEX
ANNUAL ASSET MANAGEMENT PROVISION

General Services	2025-2034 Capital Program		Calculated Annual Provision by 2035	
	DC Eligible	Non-DC Eligible	DC Eligible	Non-DC Eligible
Library Services	\$1,510,740	\$0	\$151,671	\$0
Ambulance Services	\$5,523,046	\$59,516,910	\$220,271	\$1,808,737
Long-Term Care	\$4,039,189	\$2,680,586	\$78,152	\$0
Waste Diversion	\$2,359,085	\$46,840,515	\$90,532	\$1,019,397
Development-Related Studies	\$340,000	\$100,000	\$0	\$0
Total	\$13,772,060	\$109,138,011	\$540,626	\$2,828,133

Engineered Services	2025-2041 Capital Program		Calculated Annual Provision by 2042	
	DC Eligible	Non-DC Eligible	DC Eligible	Non-DC Eligible
Services Related To A Highway	\$290,705,831	\$424,348,002	\$6,405,699	\$10,753,035
Total	\$290,705,831	\$424,348,002	\$6,405,699	\$10,753,035

8. Development Charges Administration

This section sets out the DCA requirements in respect of DC collection and administration, when development charges are determined and payable, and development charge reserve fund management.

A. Development Charges Collection and Administration

The DCA requirements in respect of the collection of DCs, certification and remittance, as well as reserve fund management are outlined in this section.

i. Collection, Certification, and Remittance of Development Charges

If a DC is imposed by an upper-tier municipality on a development in an area municipality:

- The treasurer of the upper-tier municipality shall certify to the treasurer of the area municipality that the charge has been imposed, the amount of the charge, the manner in which the charge is to be paid and when the charge is payable.
- The treasurer of the area municipality shall collect the charge when it is payable and shall, unless otherwise agreed by the upper-tier municipality, pay the charge to the treasurer of the upper-tier municipality on or before the 25th day of the month following the month in which the charge is received by the area municipality.
- If the charge is collected by the upper-tier municipality, the treasurer of the upper-tier municipality shall certify to the treasurer of the area municipality that the charge has been collected.

An upper-tier municipality may agree with an area municipality to collect DCs only in cases where the upper-tier municipality issues building permits.

Upon passage of a County DC by-law, the County Treasurer must certify the following to the Area Municipal Treasurers:

- That development charges have been imposed
- The amount of the development charge that has been imposed
- The manner in which the development charges are to be paid
- The date when the development charges are payable

ii. DC Amount Payable and Date of Payment

The total amount of a DC is the amount of the DC that would be determined under the by-law on the day of an application for site plan approval or the day of an application for rezoning or, if neither of these apply, the day of building permit issuance. Full details on determining the DCs payable in any particular case are provided in s.26 and s.26.2 of the DCA.

The default date of payment of a DC is the date of building permit issuance. However, under s.27 of the DCA the County may enter into an agreement with a developer to alter the timing of payment.

For three specific types of development DCs must be paid according to the following plan:

- Six equal annual installments beginning at building occupancy (permit or actual occupancy) and for the following five anniversaries of that date for rental housing and institutional development.

For required instalments, the County may charge interest from the date the DC would have been payable to the date the instalment is paid. Interest may accrue on each installment until the final payment has been made. Any skipped or late payments can be added to the tax roll (including interest). Full details on the prescribed payment plans are provided in s.26.1 of the DCA.

iii. **Reserve Funds**

Under the DCA, a municipality that has passed a development charge by-law must establish a separate reserve fund for each service to which the development charge relates and pay each development charge it collects into the respective reserve fund. While the DCA does permit municipalities to borrow from the reserve fund, the amount borrowed is to be repaid with interest at a rate not less than the prescribed minimum interest rate. Additionally, money in the reserve fund is to be spent only on development-related capital costs.

Annual financial statements are to be provided to Council and must include the following:

- Opening and closing balances and in-year transactions
- A description of service or category of service
- Details on credits paid by individual credit holders
- Amounts borrowed and purpose of borrowing
- Interest accrued on borrowing
- Amount and source of money used to repay borrowing
- Projects funded from DCs including amount and source of DC and non-DC funding

Non-statutory exemptions should be funded from non-DC sources.

Moreover, the County is required to spend or allocate 60% of available DC reserve funds every year for Services Related to a Highway.

iv. **Recommendations**

- As required under the DCA, the County should codify any rules regarding application of the by-law and exemptions within the DC by-law proposed for adoption.

- It is recommended that Council adopt the development-related capital forecast included in this Background Study, subject to annual review through the County's normal capital budget process.
- It is recommended that limited exemptions, other than those required in the DCA, be formally adopted in the by-laws.
- It is recommended that the County adopt indexing provisions in the by-law so as to ensure that the DC rates incorporate inflationary increases over the by-law term.

Appendix A

Development Forecast

Development Forecast

This appendix summarizes the development forecasts used to prepare the 2025 Development Charges Background Study for the County of Essex. The forecast results are presented in the following tables:

Historical Development

Table 1	Population, Households & Employment
Table 2	Housing Completions
Table 3	Residential Building Permits
Table 4	Households by Period of Construction Showing Household Size

Forecast Development

Table 5	Population, Household & Employment Forecast
Table 6	New Households & Population in New Households
Table 7	Employment by Type
Table 8	Employment Growth in New Non-Residential Space

i. Forecast Approach and Key Assumptions

The *Development Charges Act* (DCA) requires the County to estimate “the anticipated amount, type and location of development” for which development charges may be imposed. The forecast must cover both residential and non-residential development and be specific enough with regards to the quantum, type, location and timing of such development to allow the County to prepare a reasonable development-related capital program.

A 10-year development time horizon, from 2025 to 2034, has been used to calculate the development charges for all development charge-eligible services with the exception of Services Related to a Highway. A forecast to

2041 has also been prepared in consultation with County staff to align with the County's 2024 Official Plan forecasts and targets and to align with capital development plans for transportation services. The forecasts consider recent Statistics Canada Census data, municipal building permit data, Canada Mortgage and Housing Corporation (CHMC) market data on housing completions, as well as forecasts set out in the recently approved County Official Plan.

The residential development forecast is based on the County achieving an average annual growth of about 1,260 new households per year between 2025 and 2041.

Fuelled by population growth and the ongoing development of its employment lands, the County's employment is forecast to increase over the planning period to 2041 at about 1,570 jobs per year. Employment growth is forecast to be greater than population growth, so that the County's activity rate (the ratio of employment to population) increases over the period.

ii. Historical Development in the County

Historical growth figures presented in Table 1 are based on Statistics Canada Census data. Figures shown in the development forecast represent mid-year estimates. A "Census-based" definition of population is used for the purposes of the development charge study. This definition does not include an estimate of Census net undercoverage, which represents those who were missed or double-counted by the Census.

For development charges purposes, a 15-year historical period of 2010 to 2024 is used for calculating historical service levels. Since 2021 was the last year of the Census, figures from 2022 to 2025 are estimated based on Statistics Canada's *Annual Demographic Estimates*.

Table 1 shows that Essex County has experienced substantial population growth in recent years. The County's population increased from 177,698 in

2010 to 209,834 in 2024; the vast majority of that growth, 28,069 persons, occurred after 2016.

Historical employment figures are also shown in Table 1 and are based on Statistics Canada place of work data. “Place of Work Employment” data record where people work rather than their place of residence. It includes all employment with a regular or no fixed place of work. However, work-at-home employment is excluded from the figures as, for development charge purposes, this type of employment is considered not to require building floorspace for its activities.

Following a similar growth pattern to that of population, the County’s employment increased between 2010 and 2024 by 14,690 jobs, with growth increasing rapidly after 2021. The County’s current activity rate is 34.0% and it has increased steadily over the last 15 years.

The number of occupied dwellings (households) in the County increased 64,045 in 2010 to 74,937 in 2024, or an average annual growth of about 730 new units. The predominant type of housing in the County is the single-detached home, which accounts for 72% of all completions since 2010. It is noted, however, that there has been a slight shift to higher density housing in recent years—33% of all new completions in the last 5 years have been apartments (see Table 2). This trend is also evident in the data on building permits for new units (see Table 3).

Historical occupancy patterns for permanently occupied dwelling units in the County are outlined in Table 4. The overall average occupancy level in the County for single and semi-detached units is 2.75 persons per dwelling unit (PPU). Occupancy levels for recently constructed units, built between 2011 and 2021, are generally higher than the overall average. Higher PPUs are therefore used in the development charges calculations since they better reflect the number of people that are likely to reside in the new development.

For the purposes of the development charges study, employment is divided into three land use categories:

- *Population-Related Employment.* This category primarily serves the resident population and includes a wide range of retail commercial and institutional uses. Employment in this category generally grows in line with population growth.
- *Employment Land Employment.* This type of employment is primarily accommodated in low-rise industrial buildings in business parks and employment areas. Given the spatial and operational needs of these types of jobs, they are almost exclusively located in lands zoned for industrial employment uses.
- *Rural-Based Employment.* This refers to jobs scattered throughout the rural area, primarily related to agricultural, recreational and primary industries, but also including some commercial and industrial activities. This is an important component of the employment base in Essex.

iii. Forecast Method and Results

This section describes the method used to establish the development forecasts for the 10-year (2025-2034) planning period for general services and 16-year (2025-2041) planning period for Services Related to a Highway (i.e. transportation and public works).

Development charges are levied on residential development as a charge per new unit. Therefore, for the residential forecast, a projection of both the population growth¹ as well as the population in new housing units, is required.

¹ Commonly referred to as “net population growth” in the context of development charges.

- The population growth determines the need for additional facilities and provides the foundation for the development-related capital program.
- When calculating the development charge, 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 development charges will be collected.

Development charges 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 floor space in the County.

a) Residential Forecast

The residential development forecast incorporates anticipated growth in population and new occupied dwelling units (households) by type. As shown in Table 5, the County's Census population is forecast to grow from 211,980 in 2025 to 235,410 in 2034 and 258,400 by 2041. This represents population growth of 25,576 over the 10-year planning period and 48,566 over the period to 2041.

The number of households is forecast to increase from 76,140 in 2025 to 87,490 in 2034, or growth of 12,557 new units. From 2025 to 2041, the number of households is forecast to increase by 21,613.

In keeping with recent trends, the majority of new housing (48%) is anticipated to be constructed as single detached units, with 27% of new units being constructed as rowhouses and 25% as apartments (see Table 6). Population growth in the new units is estimated by applying the following PPUs to the housing unit forecast: 3.31 for single and semi-detached units; 2.00 for rows; 1.76 for apartments.

iv. Non-Residential Forecast

Non-residential development charges are calculated on a per unit of gross floor area basis. Therefore, as per the DCA, a forecast of future non-residential building space has been developed. As with the residential forecast, the GFA forecast covers then 10-year period from 2025 to 2034 for all services with the exception of Services Related to a Highway, which uses a 16-year planning period to 2041.

Table 7 shows that overall employment is forecast to increase by 17,167 over the 10-year planning period from 2025 to 2034 (15,921 without work-at-home employment) and 28,467 over the 16-year planning period to 2041 (26,373 without work-at-home employment).

An assumed floor space per worker (FSW) is applied to each type of employment in order to forecast growth in new non-residential space. The FSW assumptions used are:

- 50m² per employee for population-related employment
- 100m² per employee for employment land employment; and
- 100m² for rural based employment.

The overall growth in new non-residential building space between 2025 and 2034 is 1.2 million square metres and 2.1 million square metres between 2025 and 2041.

The majority of future employment growth in the County is forecast to occur within the population-related sector (44% over the next 10 years). However, a significant amount of new floorspace will be associated with employment land and rural-based employment (see Table 8). Approximately 454,400 square metres of new rural employment GFA is forecasted by 2034, and 797,700 square metres of rural employment GFA is forecasted by 2041. Approximately 440,600 square metres of employment land GFA is forecasted by 2034, and 742,200 square metres of employment land GFA is forecasted by 2041.

APPENDIX A
TABLE 1
COUNTY OF ESSEX
HISTORICAL POPULATION, HOUSEHOLDS & EMPLOYMENT

Year	Census Population	Growth	Households	Growth	Household Size (PPU)	Employment by POW	Growth	Activity Rate
2010	177,698	193	64,045	417	2.77	55,662	-895	31.3%
2011	177,891	193	64,465	420	2.76	54,780	-882	30.8%
2012	178,659	768	65,045	580	2.75	56,380	1,600	31.6%
2013	179,430	771	65,631	586	2.73	58,027	1,647	32.3%
2014	180,205	775	66,222	591	2.72	59,722	1,695	33.1%
2015	180,983	778	66,818	596	2.71	61,466	1,744	34.0%
2016	181,765	782	67,420	602	2.70	63,260	1,794	34.8%
2017	183,997	2,232	68,219	799	2.70	63,949	689	34.8%
2018	186,256	2,259	69,027	808	2.70	64,645	696	34.7%
2019	188,543	2,287	69,845	818	2.70	65,349	704	34.7%
2020	190,858	2,315	70,673	828	2.70	66,061	712	34.6%
2021	193,200	2,342	71,510	837	2.70	66,780	719	34.6%
2022	199,999	6,799	72,497	987	2.76	68,237	1,457	34.1%
2023	205,595	5,596	74,024	1,527	2.78	69,726	1,489	33.9%
2024	209,834	4,239	74,937	913	2.80	71,247	1,521	34.0%
Growth 2010-2024		32,329		11,309			14,690	

Source: Statistics Canada, 2006, 2011, 2016 and 2021 Census

Note: Figures for inter-censal years are estimated.

Note: Census population does not include an estimate of Census undercount.

Note: PPU = persons per unit

Note: Employment includes No Fixed Place of Work Employment but excludes Work at Home

APPENDIX A
TABLE 2
COUNTY OF ESSEX
HISTORICAL HOUSING COMPLETIONS

Year	CMHC Annual Housing Completions - Units				Completions - Shares By Unit Type			
	Singles & Semis	Rows	Apartments	Total	Singles & Semis	Rows	Apartments	Total
2010	368	63	16	447	82%	14%	4%	100%
2011	334	63	88	485	69%	13%	18%	100%
2012	636	44	2	682	93%	6%	0%	99%
2013	456	43	0	499	91%	9%	0%	100%
2014	471	30	0	501	94%	6%	0%	100%
2015	529	58	24	611	87%	9%	4%	100%
2016	778	81	0	859	91%	9%	0%	100%
2017	883	130	75	1,088	81%	12%	7%	100%
2018	824	90	175	1,089	76%	8%	16%	100%
2019	724	34	107	865	84%	4%	12%	100%
2020	712	82	219	1,013	70%	8%	22%	100%
2021	779	117	172	1,068	73%	11%	16%	100%
2022	696	119	172	987	71%	12%	17%	100%
2023	560	154	813	1,527	37%	10%	53%	100%
2024	366	81	466	913	40%	9%	51%	100%
Total	9,116	1,189	2,329	12,634	72%	9%	18%	99%
10-Year Average	685	95	222	1,002	68%	9%	22%	100%
5-Tear Average	623	111	368	1,102	57%	10%	33%	100%

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

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TABLE 3

COUNTY OF ESSEX
HISTORICAL RESIDENTIAL BUILDING PERMITS

Year	Building Permits (New Units By Type)				Building Permits (Share of New Units By Type)			
	Singles & Semis	Rows	Apartments	Total	Singles & Semis	Rows	Apartments	Total
2010	428	41	60	529	81%	8%	11%	100%
2011	500	31	22	553	90%	6%	4%	100%
2012	500	31	22	553	90%	6%	4%	100%
2013	492	13	53	558	88%	2%	9%	100%
2014	500	53	40	593	84%	9%	7%	100%
2015	636	39	192	867	73%	4%	22%	100%
2016	754	114	21	889	85%	13%	2%	100%
2017	729	58	183	970	75%	6%	19%	100%
2018	617	10	225	852	72%	1%	26%	100%
2019	565	10	285	860	66%	1%	33%	100%
2020	756	34	445	1,235	61%	3%	36%	100%
2021	683	54	524	1,261	54%	4%	42%	100%
2022	735	147	473	1,355	54%	11%	35%	100%
2023	336	62	360	758	44%	8%	47%	100%
2024	394	40	500	934	42%	4%	54%	100%
Total	8,625	737	3,405	12,767	68%	6%	27%	100%
10-Year Average	621	57	321	998	62%	6%	32%	100%
5-Tear Average	581	67	460	1,109	52%	6%	42%	101%

Source: Statistics Canada, Building Permits

APPENDIX A
TABLE 4

COUNTY OF ESSEX
HISTORICAL HOUSEHOLDS BY PERIOD OF CONSTRUCTION SHOWING HOUSEHOLD SIZE

Dwelling Unit Type	Period of Construction											Period of Construction Summary		
	Pre-1945	1946-1960	1961-1970	1971-1980	1981-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2016	2016-2021	Pre-2011	2011-2021	Total
<i>Singles and Semis</i>														
Household Population	47,175	52,920	36,095	41,270	27,625	22,130	34,015	30,420	13,730	14,990	19,455	305,380	34,445	339,825
Households	19,435	22,480	14,205	15,735	9,755	7,475	10,930	9,225	4,115	4,325	6,080	113,355	10,405	123,760
Household Size	2.43	2.35	2.54	2.62	2.83	2.96	3.11	3.30	3.34	3.47	3.20	2.69	3.31	2.75
<i>Rows</i>														
Household Population	1,330	1,230	2,350	4,325	2,845	1,575	2,170	2,260	1,470	1,275	980	19,555	2,255	21,810
Households	570	540	895	1,660	1,090	615	1,050	1,100	695	645	480	8,215	1,125	9,340
Household Size	2.33	2.28	2.63	2.61	2.61	2.56	2.07	2.05	2.12	1.98	2.04	2.38	2.00	2.34
<i>Apartments (excl. Duplexes)</i>														
Household Population	5,825	4,995	7,995	9,210	5,570	2,415	2,455	2,065	1,205	450	1,770	41,735	2,220	43,955
Households	3,640	3,465	5,330	6,255	3,530	1,455	1,450	1,125	615	240	1,020	26,865	1,260	28,125
Household Size	1.60	1.44	1.50	1.47	1.58	1.66	1.69	1.84	1.96	1.88	1.74	1.55	1.76	1.56
<i>Duplexes</i>														
Household Population	4,000	2,295	1,055	825	450	410	225	235	110	120	200	9,605	320	9,925
Households	1,915	1,110	480	375	175	155	90	90	45	35	85	4,435	120	4,555
Household Size	2.09	2.07	2.20	2.20	2.57	2.65	2.50	2.61	2.44	3.43	2.35	2.17	2.67	2.18
<i>All Units</i>														
Household Population	58,330	61,440	47,495	55,630	36,490	26,530	38,865	34,980	16,515	16,835	22,405	376,275	39,240	415,515
Households	25,560	27,595	20,910	24,025	14,550	9,700	13,520	11,540	5,470	5,245	7,665	152,870	12,910	165,780
Household Size	2.28	2.23	2.27	2.32	2.51	2.74	2.87	3.03	3.02	3.21	2.92	2.46	3.04	2.51

Note: 2011 population and household figures in this table are based on National Household Survey and may differ from 2011 Census figures.

Source: Statistics Canada, 2021 Census Special Run

APPENDIX A
TABLE 5

COUNTY OF ESSEX
POPULATION, HOUSEHOLD & EMPLOYMENT FORECAST

Year	Census Population	Growth	Households	Growth	Household Size	Employment by POW	Growth	Activity Rate
2025	211,977	2,143	76,136	1,199	2.78	72,801	1,554	34.3%
2026	214,142	2,165	77,354	1,218	2.77	74,390	1,589	34.7%
2027	216,329	2,187	78,591	1,237	2.75	75,951	1,561	35.1%
2028	218,538	2,209	79,848	1,257	2.74	77,545	1,594	35.5%
2029	220,770	2,232	81,125	1,277	2.72	79,172	1,627	35.9%
2030	223,024	2,254	82,422	1,297	2.71	80,833	1,661	36.2%
2031	225,300	2,276	83,740	1,318	2.69	82,530	1,697	36.6%
2032	228,621	3,321	84,973	1,233	2.69	84,045	1,515	36.8%
2033	231,991	3,370	86,224	1,251	2.69	85,588	1,543	36.9%
2034	235,410	3,419	87,494	1,270	2.69	87,159	1,571	37.0%
2035	238,880	3,470	88,782	1,288	2.69	88,759	1,600	37.2%
2036	242,400	3,520	90,090	1,308	2.69	90,390	1,631	37.3%
2037	245,519	3,119	91,346	1,256	2.69	91,790	1,400	37.4%
2038	248,678	3,159	92,620	1,274	2.68	93,212	1,422	37.5%
2039	251,877	3,199	93,912	1,292	2.68	94,656	1,444	37.6%
2040	255,118	3,241	95,222	1,310	2.68	96,122	1,466	37.7%
2041	258,400	3,282	96,550	1,328	2.68	97,610	1,488	37.8%
Growth 2025-2034	-	25,576	-	12,557	-	-	15,912	-
Growth 2025-2041	-	48,566	-	21,613	-	-	26,363	-

Source: Hemson Consulting, based on County of Essex Official Plan

Note: Employment includes No Fixed Place of Work Employment but excludes Work at Home

APPENDIX A
TABLE 6

COUNTY OF ESSEX
FORECAST OF NEW HOUSEHOLDS & POPULATION IN NEW HOUSEHOLDS

Year	New Households				Population in New Households *			
	Singles & Semis	Rows & Other Multiples	Apartments	Total	Singles & Semis	Rows & Other Multiples	Apartments	Total
2025	576	326	297	1,199	1,907	653	523	3,084
2026	585	331	302	1,218	1,938	664	531	3,133
2027	594	336	306	1,237	1,968	674	540	3,182
2028	604	342	311	1,257	2,000	685	548	3,233
2029	614	347	316	1,277	2,031	696	557	3,284
2030	623	353	321	1,297	2,063	707	566	3,336
2031	633	358	326	1,318	2,097	718	575	3,390
2032	593	335	305	1,233	1,961	672	538	3,171
2033	601	340	310	1,251	1,990	682	546	3,218
2034	610	345	315	1,270	2,020	692	554	3,266
2035	619	350	319	1,288	2,049	702	562	3,313
2036	629	356	324	1,308	2,081	713	571	3,364
2037	604	341	311	1,256	1,998	684	548	3,230
2038	612	346	316	1,274	2,027	694	556	3,277
2039	621	351	320	1,292	2,055	704	564	3,323
2040	630	356	324	1,310	2,084	714	572	3,369
2041	638	361	329	1,328	2,113	724	579	3,416
Growth 2025-2034	6,034	3,413	3,110	12,557	19,976	6,841	5,479	32,296
Growth 2025-2041	10,386	5,874	5,353	21,613	34,382	11,775	9,431	55,588

Source: Hemson Consulting, based on Watson & Associates County of Essex Growth Analysis Report, 2022.

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TABLE 7

COUNTY OF ESSEX
EMPLOYMENT FORECAST BY TYPE

Year	Population-Related		Employment Land		Other Rural Based		Total Employment for DC Study		Work at Home		Total Employment	
	Total	Growth	Total	Growth	Total	Growth	Total	Growth	Total	Growth	Total	Growth
2025	28,250	834	26,910	472	17,635	252	72,795	1,558	5,952	116	78,747	1,674
2026	29,110	860	27,390	480	17,890	255	74,390	1,595	6,070	118	80,460	1,713
2027	29,769	659	27,803	413	18,375	485	75,947	1,557	6,193	123	82,140	1,680
2028	30,443	674	28,223	420	18,873	498	77,539	1,592	6,318	125	83,857	1,717
2029	31,133	690	28,649	426	19,385	512	79,167	1,628	6,446	128	85,613	1,756
2030	31,838	705	29,081	432	19,911	526	80,830	1,663	6,577	131	87,407	1,794
2031	32,560	722	29,520	439	20,450	539	82,530	1,700	6,710	133	89,240	1,833
2032	33,158	598	29,955	435	20,931	481	84,044	1,514	6,832	122	90,876	1,636
2033	33,767	609	30,396	441	21,423	492	85,586	1,542	6,956	124	92,542	1,666
2034	34,387	620	30,844	448	21,927	504	87,158	1,572	7,082	126	94,240	1,698
2035	35,018	631	31,298	454	22,443	516	88,759	1,601	7,210	128	95,969	1,729
2036	35,660	642	31,760	462	22,970	527	90,390	1,631	7,340	130	97,730	1,761
2037	36,190	530	32,169	409	23,429	459	91,788	1,398	7,454	114	99,242	1,512
2038	36,728	538	32,584	415	23,897	468	93,209	1,421	7,570	116	100,779	1,537
2039	37,274	546	33,004	420	24,375	478	94,653	1,444	7,688	118	102,341	1,562
2040	37,828	554	33,429	425	24,862	487	96,119	1,466	7,808	120	103,927	1,586
2041	38,390	562	33,860	431	25,360	498	97,610	1,491	7,930	122	105,540	1,613
Growth 2025-2034	-	6,971	-	4,406	-	4,544	-	15,921	-	1,246	-	17,167
Growth 2025-2041	-	10,974	-	7,422	-	7,977	-	26,373	-	2,094	-	28,467

Source: Hemson Consulting, based on Watson & Associates County of Essex Growth Analysis Report, 2022

APPENDIX A

TABLE 8

COUNTY OF ESSEX EMPLOYMENT GROWTH IN NEW NON-RESIDENTIAL SPACE

Employment Density Assumptions

Population-Related	50 m ² per employee
Employment Land	100 m ² per employee
Rural	100 m ² per employee

Year	<u>Population-Related</u>		<u>Employment Land</u>		<u>Rural</u>		<u>Total</u>	
	Employment Growth	Growth in New Space (m ²)	Employment Growth	Growth in New Space (m ²)	Employment Growth	Growth in New Space (m ²)	Employment Growth	Growth in New Space (m ²)
2025	834	41,700	472	47,200	252	25,200	1,558	114,100
2026	860	43,000	480	48,000	255	25,500	1,595	116,500
2027	659	32,950	413	41,300	485	48,500	1,557	122,750
2028	674	33,700	420	42,000	498	49,800	1,592	125,500
2029	690	34,500	426	42,600	512	51,200	1,628	128,300
2030	705	35,250	432	43,200	526	52,600	1,663	131,050
2031	722	36,100	439	43,900	539	53,900	1,700	133,900
2032	598	29,900	435	43,500	481	48,100	1,514	121,500
2033	609	30,450	441	44,100	492	49,200	1,542	123,750
2034	620	31,000	448	44,800	504	50,400	1,572	126,200
2035	631	31,550	454	45,400	516	51,600	1,601	128,550
2036	642	32,100	462	46,200	527	52,700	1,631	131,000
2037	530	26,500	409	40,900	459	45,900	1,398	113,300
2038	538	26,900	415	41,500	468	46,800	1,421	115,200
2039	546	27,300	420	42,000	478	47,800	1,444	117,100
2040	554	27,700	425	42,500	487	48,700	1,466	118,900
2041	562	28,100	431	43,100	498	49,800	1,491	121,000
Growth 2025-2034	6,971	348,550	4,406	440,600	4,544	454,400	15,921	1,243,550
Growth 2025-2041	10,974	548,700	7,422	742,200	7,977	797,700	26,373	2,088,600

Source: Hemson Consulting

Appendix B:

General Services

Technical Appendix

General Services Technical Appendix

This appendix provides the detailed analysis undertaken to establish the development charge rates for each of the general services provided by the County of Essex. Five services have been analyzed:

Appendix B.1	Library Services
Appendix B.2	Ambulance Services
Appendix B.3	Long-Term Care
Appendix B.4	Waste Diversion
Appendix B.5	Development-Related Studies

Every service, with the exception of Development-Related Studies, contains a set of two tables. 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 given below.

Table 1 15-Year Historical Service Levels and Calculation of Maximum Allowable Funding Envelope

Table 1 presents the data used to determine the 15-year historical service level. The 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 County over the 15-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 2010 to 2024.

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. 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 growth-related capital facilities that are to be funded by new development reflect not only the quantity (number and size) but also the quality (replacement value or cost) of service provided by the County in the past. Both the quantitative and qualitative aspects of service levels used in the current analysis are based on information provided by County 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”. This is defined as the 15-year average historical service level (expressed as \$/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 15-year average historical service level is maintained.

There is also a requirement in the DCA to consider “excess capacity” within the County’s existing infrastructure that may be available to partially meet the future servicing requirements. If Council has expressed its intent before or at the time the capacity was created to recoup the cost of providing the capacity from new development, it is considered “committed excess capacity” under the DCA, and the associated capital cost is eligible for recovery. The development of the capital programs takes into consideration any available, or useable, servicing capacity within existing infrastructure. Should uncommitted excess capacity exist, it is determined whether or not this capacity will be available to service new development and, if so, deductions to the maximum allowable funding envelope are required.

Table 2 2025 – 2034 Capital Program and Calculation of Development Charges

The DCA requires that Council express its intent to provide capital facilities to support future development. Based on the development forecasts presented in Appendix A, County master plans, and capital budgets and forecasts, staff in collaboration with consultants have developed a development-related capital program that sets out the projects required to service anticipated development for the 10-year planning period from 2025 to 2034.

To determine the share of the program that is eligible for recovery through development charges, the project costs are reduced by any anticipated grants, benefit to existing (BTE) shares, or replacement shares.

BTE shares represent portions of costs that will benefit existing residents of the County. It could represent a portion of a new facility that, at least in part, replaces a facility that is demolished, redeployed, or will otherwise not be available to serve its former function (a “replacement” share). The BTE 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 BTE shares will require funding from non-development charge sources, typically property taxes or user fees.

The capital program less any BTE shares yields the net development-related capital costs. Although identified as development-related, not all of the net development-related capital program may be recoverable from development charges in the period from 2025 to 2034. For some of the services, a portion of the capital program will service development that will not occur until after 2034. This portion of the capital program is either deemed “pre-built” service capacity to be considered as committed excess capacity to be recovered under future development, or represents a future service level increase that is ineligible for development charge recovery. The capital costs associated

with this “post-period” benefit is also removed from the development charge calculation.

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 development-related net capital cost that is eligible for recovery through development charges over the period from 2025 to 2034.

Calculation of the Development Charge Rates

The section below the capital program displays the calculation of the development charge rates.

The first step when determining the development charge rate is to allocate the development-related net capital cost between the residential and non-residential sectors. For the services of Ambulance Services and Development-Related Studies, the development-related costs have been apportioned as 67% residential and 33% non-residential. This apportionment is based on the anticipated shares of population growth in new units and employment growth over the 10-year forecast period.

The development-related costs associated with the Library Services, Long Term Care, and Waste Diversion have been allocated 100% to the residential sector because the need for these services is generally driven by residential development.

The residential share of the 2025-2034 development charge-eligible costs are then divided by the forecast population growth in new units. This results in the residential development charge per capita. The non-residential development-related net capital 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. The DCA permits the inclusion of interest on money borrowed to pay for the development-related capital program in

the development charge calculation. However, given the uncertainty of the timing of projects in the program, a cashflow analysis of interest and financing requirements has not been undertaken.

Appendix B.1

Library Services

Library Services

The following section sets out the 2025 – 2034 development-related capital forecast and the calculation of the development charge for Library Services in the County. Given all County residents have access to the Library, the benefits of this service are deemed to be County-wide for the purpose of calculating the development charge.

Table 1 15-Year Historical Service Levels and Calculation of Maximum Allowable Funding Envelope

Table 1 displays the 15-year historical inventory for buildings, land, materials, furniture and equipment (excluding computer equipment), and vehicles for Library Services. The Library Administration office is 12,000 square feet on approximately 0.4 hectares of land and is located in the Essex County Civic Centre. Building and land replacement costs for the amount to \$5.4 million and \$160,000 respectively.

Collection materials in the Library system, including books and audio-visual materials, have a combined value of \$6.9 million. Furniture and equipment, including shelving, reception/circulation desks, furniture and fixtures, signs, telecommunication systems, and miscellaneous equipment amount to \$1.9 million. Additionally, the County’s Library vehicles add \$156,000 to the Library inventory.

The 2024 total replacement value of the inventory of capital assets for Library Services in the County is \$14.5 million, resulting in a 15-year historical average service level of \$99.34 per capita. The historical service level, multiplied by the net population growth to 2034 (25,576 persons), yields a maximum allowable funding envelope of \$2.5 million.

Table 2 2025 – 2034 Capital Program and Calculation of Development Charges

As shown in Table 2, the 2025 – 2034 Library Services capital program is restricted to a provision for new collection materials based on maintaining the 15-year historical average service level for materials. No grants, subsidies, or other similar recoveries are anticipated to offset the cost of the \$1.5 million program and no BTE shares have been identified.

The full \$1.5 million development-related share of the capital program has been allocated 100% to new residential development. This cost is divided by the anticipated growth in population in new units over the planning period (32,296 persons), resulting in a development charge of \$46.78 per capita.

LIBRARY SERVICES SUMMARY				
15-year Hist.	2025 - 2034		Calculated	
Service Level	Development-Related Capital Program		Development Charge	
per capita	Total	Net DC Recoverable	\$/capita	\$/sq.m
\$99.34	\$1,510,740	\$1,510,740	\$46.78	\$0.00

APPENDIX B.1
Table 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
LIBRARY SERVICES

BUILDINGS Branch Name	# of Square Feet															UNIT COST (\$/sq.ft.)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Library Administration	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	\$450
Total (sq.ft.)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	
Total (\$000)	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	

LAND Branch Name	# of Hectares															UNIT COST (\$/ha)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Library Administration	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	\$400,000
Total (ha)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Total (\$000)	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	

MATERIALS Type	# of Collection Materials															UNIT COST (\$/unit)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Books	540,914	513,355	404,104	371,008	408,871	385,764	367,985	367,834	350,233	460,976	262,099	407,902	390,336	356,864	236,696	\$22
Audio Visual Materials	89,213	74,299	84,990	106,125	98,898	105,469	72,801	95,773	102,335	85,350	60,406	58,290	61,209	68,448	57,845	\$30
Total (#)	630,127	587,653	489,094	477,133	507,769	491,233	440,786	463,607	452,568	546,326	322,505	466,191	451,545	425,312	294,541	
Total (\$000)	\$14,576.5	\$13,522.8	\$11,440.0	\$11,345.9	\$11,962.1	\$11,650.9	\$10,279.7	\$10,965.5	\$10,775.2	\$12,702.0	\$7,578.4	\$10,722.5	\$10,423.7	\$9,904.4	\$6,942.6	

APPENDIX B.1
Table 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
LIBRARY SERVICES

FURNITURE & EQUIPMENT Type	Total Value of Furniture & Equipment (\$)														
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Shelving	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700	\$970,700
Reception/Circulation Desk	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900	\$393,900
Furniture & Fixtures	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700	\$116,700
Telecommunication Systems	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400	\$225,400
Signs	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900	\$44,900
Miscellaneous Equipment	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300	\$118,300
Total (\$000)	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9

VEHICLES Type	# of Vehicles															UNIT COST (\$/vehicle)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
2015 Ford Transit Cargo Van	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$78,000
Sprinter Van	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	\$78,000
Total (#)	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	
Total (\$000)	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$156.0	\$156.0	\$156.0	\$156.0	\$156.0	\$156.0	

APPENDIX B.1
Table 1

COUNTY OF ESSEX
CALCULATION OF SERVICE LEVELS
LIBRARY SERVICES

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Historical Population	177,698	177,891	178,659	179,430	180,205	180,983	181,765	183,997	186,256	188,543	190,858	193,200	199,999	205,595	209,834

INVENTORY SUMMARY (\$000)

Buildings	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0	\$5,400.0
Land	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0	\$160.0
Materials	\$14,576.5	\$13,522.8	\$11,440.0	\$11,345.9	\$11,962.1	\$11,650.9	\$10,279.7	\$10,965.5	\$10,775.2	\$12,702.0	\$7,578.4	\$10,722.5	\$10,423.7	\$9,904.4	\$6,942.6
Furniture & Equipment	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9	\$1,869.9
Vehicles	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$78.0	\$156.0	\$156.0	\$156.0	\$156.0	\$156.0	\$156.0
Total (\$000)	\$22,084.4	\$21,030.7	\$18,947.9	\$18,853.8	\$19,470.0	\$19,158.8	\$17,787.6	\$18,473.4	\$18,283.1	\$20,287.9	\$15,164.3	\$18,308.4	\$18,009.6	\$17,490.3	\$14,528.5

SERVICE LEVEL (\$/capita)

Average
Service Level

Buildings	\$30.39	\$30.36	\$30.23	\$30.10	\$29.97	\$29.84	\$29.71	\$29.35	\$28.99	\$28.64	\$28.29	\$27.95	\$27.00	\$26.27	\$25.73	\$28.85
Land	\$0.90	\$0.90	\$0.90	\$0.89	\$0.89	\$0.88	\$0.88	\$0.87	\$0.86	\$0.85	\$0.84	\$0.83	\$0.80	\$0.78	\$0.76	\$0.85
Materials	\$82.03	\$76.02	\$64.03	\$63.23	\$66.38	\$64.38	\$56.55	\$59.60	\$57.85	\$67.37	\$39.71	\$55.50	\$52.12	\$48.17	\$33.09	\$59.07
Furniture & Equipment	\$10.52	\$10.51	\$10.47	\$10.42	\$10.38	\$10.33	\$10.29	\$10.16	\$10.04	\$9.92	\$9.80	\$9.68	\$9.35	\$9.10	\$8.91	\$9.99
Vehicles	\$0.44	\$0.44	\$0.44	\$0.43	\$0.43	\$0.43	\$0.43	\$0.42	\$0.42	\$0.83	\$0.82	\$0.81	\$0.78	\$0.76	\$0.74	\$0.57
Total (\$/capita)	\$124.28	\$118.22	\$106.06	\$105.08	\$108.04	\$105.86	\$97.86	\$100.40	\$98.16	\$107.60	\$79.45	\$94.76	\$90.05	\$85.07	\$69.24	\$99.34

COUNTY OF ESSEX
CALCULATION OF MAXIMUM ALLOWABLE FUNDING ENVELOPE
LIBRARY SERVICES

Funding Envelope Calculation	
15-Year Average Service Level (2010-2024)	\$99.34
Net Population Growth (2025-2034)	25,576
Maximum Allowable Funding Envelope	\$2,540,797

APPENDIX B.1

TABLE 2

COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
LIBRARY SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs	
					Replacement & BTE Shares			2025-2034	Post 2034
1.0 LIBRARY SERVICES									
1.1 Library Materials									
1.1.1 Acquisition of New Collection Materials	Various	\$ 1,510,740	\$ -	\$ 1,510,740	0%	\$ -	\$ 1,510,740	\$ 1,510,740	\$ -
Subtotal - Library Materials		\$ 1,510,740	\$ -	\$ 1,510,740		\$ -	\$ 1,510,740	\$ 1,510,740	\$ -
TOTAL LIBRARY SERVICES		\$ 1,510,740	\$ -	\$ 1,510,740		\$ -	\$ 1,510,740	\$ 1,510,740	\$ -

Residential Development Charge Calculation		
Residential Share of 2025-2034 DC Eligible Costs	100%	\$1,510,740
10-Year Growth in Population in New Units		32,296
Unadjusted Development Charge per Capita		\$46.78
Non-Residential Development Charge Calculation		
Non-Residential Share of 2025-2034 DC Eligible Costs	0%	\$0
10-Year Growth in Square Metres		1,243,550
Unadjusted Development Charge per Square Metre		\$0.00

2025-2034 Net Funding Envelope \$2,540,797

Appendix B.2

Ambulance Services

Ambulance Services

The following section sets out the 2025 – 2034 development-related capital forecast and the calculation of the development charge for Ambulance Services in the County. The service is delivered jointly with the City of Windsor on a 50:50 basis and is more commonly referred to as the Essex-Windsor Emergency Medical Services. The benefits of the County share of Ambulance Services are deemed to be County-wide for the purpose of calculating the development charge.

Table 1 15-Year Historical Service Levels and Calculation of Maximum Allowable Funding Envelope

Table 1 sets out the 15-year historical inventory for buildings, land, vehicles, furniture and equipment for Ambulance services.

The service operates out of 77,675 square feet of leased and owned building space which has a current replacement value of approximately \$60.9 million. After accounting for the City’s share, the figure attributable to the County portion of the service is reduced to \$30.4 million.

Ambulance facilities occupy 1.1 hectares of land valued at approximately \$684,600, with City and County shares amounting to \$342,300 each.

Additionally, the service uses 72 vehicles and other furniture, equipment, and capital assets, which are collectively valued at \$27.6 million. The County’s share of the vehicles amounts to \$8.4 million; its share of furniture, equipment and other assets is \$5.4 million.

The County’s share of the current replacement value of the total inventory of capital assets for Ambulance Services is \$44.6 million. This has provided the County with a 15-year average service level of \$166.90 per capita and

employment. Multiplying this historical service level by the net population and employment growth occurring between 2025 and 2034 (41,488 persons and jobs) results in a maximum funding envelope of \$6.9 million.

Table 2 2025 – 2034 Capital Program and Calculation of Development Charges

The 2025 – 2034 Ambulance Services development-related capital program is based on the Essex-Windsor EMS Master Plan Update Administrative Report, released on February 5, 2025. It includes:

- land acquisition and building construction costs for a new Hub Headquarters and two new Substations, as well as associated furnishings and equipment. The total cost of these new facilities amounts to \$55.6 million, of which the County share is \$27.8 million;
- bunker gear for 44 new full-time employees, 22 new part-time employees, and 4 new district chiefs. The cost of this paramedic equipment is \$175,000, of which the County share is \$87,500;
- 9 new vehicles required to maintain current response time standards to 2034. The cost of these vehicles is estimated at \$3.6 million, of which the County share is \$1.8 million;
- 14 new vehicles required to achieve a target 75% response time standard. The cost of these vehicles is estimated at \$5.6 million, of which the County share is \$2.8 million; and
- a Service Delivery Review, planned for 2025 to help the County understand workflows and role portfolios in relation to best practices, as well as two EMS Master Plan updates. These studies are expected to cost \$175,000, to be cost-shared with the City (\$87,500 each).

BTE Shares

BTE shares have been removed from the development charge calculation on the basis that a significant amount of the need for investment in new buildings, gear, and vehicles is driven by the ageing of the existing population in the County, and the desire by the County to increase its current response time standard. The Essex-Windsor EMS Master Plan Update Administrative Report shows that, within the County, only 61.7% of additional call demand over the next 6 years is attributable to population growth (see below).

Call Demand Increase 2024-2030

Area	Average 2019-2023	Average 2021-2023	Average 2024-2030
Windsor	1.60%	4.20%	5.1%
County of Essex	1.90%	3.40%	3.2%
Average	1.70%	4.00%	4.5%

NB. These are per annum

Area	% due to Pop. Change	% due to Ageing	% due to Demand Rate
Windsor	42.2%	2.2%	55.6%
County of Essex	61.7%	22.8%	15.5%
Average	47.6%	7.5%	44.9%

This is the basis for determining the 38.3% BTE shares assigned to the cost of vehicles required to maintain existing levels of service and to future EMS master plan updates ($100\% - 61.7\% = 38.3\%$).

A higher BTE share, 91.8%, is determined for vehicle costs required to achieve the new (higher) service standard. The BTE calculation assumes that the benefits of the higher service standard will accrue equally to all residents and jobs of the County, both new and existing:

A	Population and employment growth 2025-2034 = 48,208
B	2034 population and employment = 322,569
$C = A/B$	85.1%
D	Additional Service Demand Driven by Growth = 61.7%
$E = C*D$	9.2% (Development-Related Share)

This 91.8% BTE is also applied to the bunker gear and Service Delivery Review.

Finally, an 85.2% BTE share has been applied to the development-related costs for the new facilities based on the share of space required for the vehicles needed to maintain current response times and the space required for vehicles for the higher service standard.

The total BTE share is calculated at \$27.0 million, or 83% of the net development-related cost of the program. The remaining \$5.5 million is carried forward to the development charge calculation.

Development Charge Calculation

The total cost of the capital program is \$65.0 million, of which \$32.5 million has been removed as a City of Windsor share and \$27.0 million has been removed as a BTE share. Of the remaining \$5.5 million, 67% has been allocated to residential development and 33% has been allocated to non-residential development over the 10-year planning period.

The residential share of the program (\$3.7 million) is divided by the anticipated growth in population in new units over the planning period (32,296 persons), yielding a development charge of \$114.57 per capita. The non-residential share (\$1.8 million) is divided by the anticipated growth in square metres over the period to 2034 (1.2 million square metres), which yields a charge of \$1.47 per square metre.

AMBULANCE SERVICES SUMMARY				
15-year Hist.	2025 - 2034		Calculated	
Service Level	Development-Related Capital Program		Development Charge	
per capita/emp	Total	Net DC Recoverable	\$/capita	\$/sq.m
\$166.90	\$65,039,956	\$5,523,046	\$114.57	\$1.47

APPENDIX B.2

Table 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
AMBULANCE SERVICES

County Share of Joint Services Agreement with Windsor

50%

BUILDINGS	# of Square Feet															UNIT COST
Facility Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(\$/sq.ft.)
Mercer Street (Windsor)	20,103	20,103	20,103	20,103	20,103	20,103	20,103	20,103	20,103	20,103	20,103	20,103	20,103	20,103	20,103	\$810
Dougall Avenue (Windsor)	-	-	-	-	-	-	-	-	6,325	6,325	6,325	6,325	6,325	6,325	6,325	\$810
Jefferson Boulevard (Windsor)	3,670	3,670	3,670	3,670	3,670	3,670	3,670	3,670	3,670	3,670	3,670	3,670	3,670	3,670	3,670	\$810
Malden Road (LaSalle)	4,028	4,028	4,028	4,028	4,028	4,028	4,028	4,028	4,028	4,028	4,028	4,028	4,028	4,028	4,028	\$810
Leamington	10,188	10,188	10,188	10,188	10,188	10,188	10,188	10,188	10,188	10,188	10,188	10,188	10,188	10,188	10,188	\$810
Essex	3,116	3,116	3,116	3,116	3,116	3,116	3,116	3,116	3,116	3,116	3,116	3,116	3,116	3,116	3,116	\$810
Amherstburg	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	\$1,200
Lakeshore	-	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	\$810
Tecumseh	-	-	-	8,920	8,920	8,920	8,920	8,920	8,920	8,920	8,920	8,920	8,920	8,920	8,920	\$810
Kingsville	-	-	-	-	-	-	-	-	-	-	-	-	-	6,325	6,325	
Harrow	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	\$1,200
Pelee Island	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	\$810
Total (sq.ft.)	51,405	56,105	56,105	65,025	65,025	65,025	65,025	65,025	71,350	71,350	71,350	71,350	71,350	77,675	77,675	
Total (\$000)	\$44,719.1	\$48,526.1	\$48,526.1	\$55,751.3	\$55,751.3	\$55,751.3	\$55,751.3	\$55,751.3	\$60,874.5	\$60,874.5	\$60,874.5	\$60,874.5	\$60,874.5	\$60,874.5	\$60,874.5	
County of Essex Share Total - 50% (\$000)	\$22,359.5	\$24,263.0	\$24,263.0	\$27,875.6	\$27,875.6	\$27,875.6	\$27,875.6	\$27,875.6	\$30,437.3	\$30,437.3	\$30,437.3	\$30,437.3	\$30,437.3	\$30,437.3	\$30,437.3	

LAND	# of Hectares															UNIT COST
Facility Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(\$/ha)
Mercer Street (Windsor)	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	\$1,000,000
Dougall Avenue (Windsor)	-	-	-	-	-	-	-	-	0.09	0.09	0.09	0.09	0.09	0.09	0.09	\$1,000,000
Jefferson Boulevard (Windsor)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	\$1,000,000
Malden Road (LaSalle)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	\$400,000
Leamington	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	\$400,000
Essex	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	\$400,000
Amherstburg	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	\$400,000
Lakeshore	-	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	\$400,000
Tecumseh	-	-	-	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	\$400,000
Kingsville	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09	0.09	\$400,000
Harrow	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	\$400,000
Pelee Island	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	\$400,000
Total (ha)	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.1	1.1	
Total (\$000)	\$485.3	\$511.5	\$511.5	\$561.2	\$561.2	\$561.2	\$561.2	\$561.2	\$649.4	\$649.4	\$649.4	\$649.4	\$649.4	\$684.6	\$684.6	
County of Essex Share Total - 50% (\$000)	\$242.7	\$255.8	\$255.8	\$280.6	\$280.6	\$280.6	\$280.6	\$280.6	\$324.7	\$324.7	\$324.7	\$324.7	\$324.7	\$342.3	\$342.3	

APPENDIX B.2

Table 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
INTEREST ASSUMPTIONS

VEHICLES Type	Total # of Vehicles															UNIT COST (\$/vehicle)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Ambulance	39	54	54	54	54	54	54	54	54	54	54	54	54	54	54	\$267,800
Ford Taurus (Interceptor)	-	-	-	-	-	2	3	3	3	3	3	1	-	-	-	\$51,800
Chevrolet Tahoe	7	7	7	7	7	7	7	7	8	8	8	10	10	10	10	\$159,200
GMC Sierra	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	\$162,000
Dodge Durango	-	-	1	1	1	1	1	1	1	1	1	3	4	4	4	\$59,500
Dodge Sprinter	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	\$59,500
Ford Transit	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	\$81,300
Total (#)	47	62	63	63	63	65	66	66	70	70	70	72	72	72	72	
Total (\$000)	\$11,618.1	\$15,635.1	\$15,694.6	\$15,694.6	\$15,694.6	\$15,798.2	\$15,850.0	\$15,850.0	\$16,495.2	\$16,517.0	\$16,517.0	\$16,850.8	\$16,858.5	\$16,858.5	\$16,858.5	
<i>County of Essex Share Total - 50% (\$000)</i>	<i>\$5,809.1</i>	<i>\$7,817.6</i>	<i>\$7,847.3</i>	<i>\$7,847.3</i>	<i>\$7,847.3</i>	<i>\$7,899.1</i>	<i>\$7,925.0</i>	<i>\$7,925.0</i>	<i>\$8,247.6</i>	<i>\$8,258.5</i>	<i>\$8,258.5</i>	<i>\$8,425.4</i>	<i>\$8,429.3</i>	<i>\$8,429.3</i>	<i>\$8,429.3</i>	

FURNITURE, EQUIPMENT & OTHER Type	Total Value of Furniture & Equipment (\$)															
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Land Improvements	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	\$352,000	
Medical Supplies	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	\$66,100	
Powerload	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	\$1,994,300	
Emergency Generators	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	\$361,300	
Kubota RTV	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	\$65,400	
Other	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	\$7,891,700	
Total (\$000)	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	\$10,730.8	
<i>County of Essex Share Total - 50% (\$000)</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	<i>\$5,365.4</i>	

**APPENDIX B.2
TABLE 1**

**COUNTY OF ESSEX
CALCULATION OF SERVICE LEVELS
AMBULANCE SERVICES**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Historical Population	177,698	177,891	178,659	179,430	180,205	180,983	181,765	183,997	186,256	188,543	190,858	193,200	199,999	205,595	209,834
Historical Employment	<u>55,662</u>	<u>54,780</u>	<u>56,380</u>	<u>58,027</u>	<u>59,722</u>	<u>61,466</u>	<u>63,260</u>	<u>63,949</u>	<u>64,645</u>	<u>65,349</u>	<u>66,061</u>	<u>66,780</u>	<u>68,237</u>	<u>69,726</u>	<u>71,247</u>
Total Historical Population & Employment	233,360	232,671	235,039	237,457	239,927	242,449	245,025	247,946	250,901	253,892	256,919	259,980	268,236	275,321	281,081

INVENTORY SUMMARY (\$000)

Buildings	\$22,359.5	\$24,263.0	\$24,263.0	\$27,875.6	\$27,875.6	\$27,875.6	\$27,875.6	\$27,875.6	\$30,437.3	\$30,437.3	\$30,437.3	\$30,437.3	\$30,437.3	\$30,437.3	\$30,437.3
Land	\$242.7	\$255.8	\$255.8	\$280.6	\$280.6	\$280.6	\$280.6	\$280.6	\$324.7	\$324.7	\$324.7	\$324.7	\$324.7	\$342.3	\$342.3
Vehicles	\$5,809.1	\$7,817.6	\$7,847.3	\$7,847.3	\$7,847.3	\$7,899.1	\$7,925.0	\$7,925.0	\$8,247.6	\$8,258.5	\$8,258.5	\$8,425.4	\$8,429.3	\$8,429.3	\$8,429.3
Furniture, Equipment & Other	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4	\$5,365.4
Total (\$000)	\$33,776.6	\$37,701.7	\$37,731.5	\$41,368.9	\$41,368.9	\$41,420.7	\$41,446.6	\$41,446.6	\$44,374.9	\$44,385.8	\$44,385.8	\$44,552.7	\$44,556.6	\$44,574.2	\$44,574.2

SERVICE LEVEL (\$/capita and employment)

**Average
Service Level**

Buildings	\$95.82	\$104.28	\$103.23	\$117.39	\$116.18	\$114.98	\$113.77	\$112.43	\$121.31	\$119.88	\$118.47	\$117.08	\$113.47	\$110.55	\$108.29	\$112.47
Land	\$1.04	\$1.10	\$1.09	\$1.18	\$1.17	\$1.16	\$1.15	\$1.13	\$1.29	\$1.28	\$1.26	\$1.25	\$1.21	\$1.24	\$1.22	\$1.18
Vehicles	\$24.89	\$33.60	\$33.39	\$33.05	\$32.71	\$32.58	\$32.34	\$31.96	\$32.87	\$32.53	\$32.14	\$32.41	\$31.42	\$30.62	\$29.99	\$31.77
Furniture, Equipment & Other	\$22.99	\$23.06	\$22.83	\$22.60	\$22.36	\$22.13	\$21.90	\$21.64	\$21.38	\$21.13	\$20.88	\$20.64	\$20.00	\$19.49	\$19.09	\$21.47
Total (\$/capita and emp)	\$144.74	\$162.04	\$160.53	\$174.22	\$172.42	\$170.84	\$169.15	\$167.16	\$176.86	\$174.82	\$172.76	\$171.37	\$166.11	\$161.90	\$158.58	\$166.90

**COUNTY OF ESSEX
CALCULATION OF MAXIMUM ALLOWABLE FUNDING ENVELOPE
AMBULANCE SERVICES**

Funding Envelope Calculation	
15-Year Average Service Level (2010-2024)	\$166.90
Net Population & Employment Growth (2025-2034)	41,488
Maximum Allowable Funding Envelope	\$6,924,403

APPENDIX B.2

TABLE 2

COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
AMBULANCE SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs	
					Replacement & BTE Shares			DC Eligible 2025-2034	Post 2034
2.0 AMBULANCE SERVICES									
2.1 Buildings, Land & Furnishings									
2.1.1 Hub Headquarters (Land at 5 acres)	2027	\$ 2,000,000	\$ 1,000,000	\$ 1,000,000	85.2%	\$ 851,756	\$ 148,244	\$ 148,244	\$ -
2.1.2 Hub Headquarters (Building at 55,000 sq.ft.)	2028	\$ 44,550,000	\$ 22,275,000	\$ 22,275,000	85%	\$ 18,972,860	\$ 3,302,140	\$ 3,302,140	\$ -
2.1.3 2 Substations (Land at .75 acres each)	2029	\$ 600,000	\$ 300,000	\$ 300,000	85%	\$ 255,527	\$ 44,473	\$ 44,473	\$ -
2.1.4 2 Substations (Buildings at 2,600 sq.ft. each)	2030	\$ 4,212,000	\$ 2,106,000	\$ 2,106,000	85%	\$ 1,793,798	\$ 312,202	\$ 312,202	\$ -
2.1.5 New Station Furnishings and Equipment	2028	\$ 4,200,000	\$ 2,100,000	\$ 2,100,000	85%	\$ 1,788,687	\$ 311,313	\$ 311,313	\$ -
Subtotal - Buildings, Land & Furnishings		\$ 55,562,000	\$ 27,781,000	\$ 27,781,000		\$ 23,662,628	\$ 4,118,372	\$ 4,118,372	\$ -
2.2 Paramedic Equipment									
2.2.1 Gear - Additional 44 Full-Time Employees	2025	\$ 110,000	\$ 55,000	\$ 55,000	91%	\$ 49,928	\$ 5,072	\$ 5,072	\$ -
2.2.2 Gear - Additional 22 Part-Time Employees	2025	\$ 55,000	\$ 27,500	\$ 27,500	91%	\$ 24,964	\$ 2,536	\$ 2,536	\$ -
2.2.3 Gear - Additional 4 District Chiefs	2025	\$ 10,000	\$ 5,000	\$ 5,000	91%	\$ 4,539	\$ 461	\$ 461	\$ -
Subtotal - Paramedic Equipment		\$ 175,000	\$ 87,500	\$ 87,500		\$ 79,432	\$ 8,068	\$ 8,068	\$ -
2.3 New Vehicles to Maintain Status Quo									
2.3.1 2 New Vehicles	2025	\$ 792,158	\$ 396,079	\$ 396,079	38%	\$ 151,698	\$ 244,381	\$ 244,381	\$ -
2.3.2 2 New Vehicles	2026	\$ 792,158	\$ 396,079	\$ 396,079	38%	\$ 151,698	\$ 244,381	\$ 244,381	\$ -
2.3.3 2 New Vehicles	2027	\$ 792,158	\$ 396,079	\$ 396,079	38%	\$ 151,698	\$ 244,381	\$ 244,381	\$ -
2.3.4 1 New Vehicle	2028	\$ 397,146	\$ 198,573	\$ 198,573	38%	\$ 76,053	\$ 122,520	\$ 122,520	\$ -
2.3.5 1 New Vehicle	2029	\$ 397,146	\$ 198,573	\$ 198,573	38%	\$ 76,053	\$ 122,520	\$ 122,520	\$ -
2.3.6 1 New Vehicle	2030	\$ 397,146	\$ 198,573	\$ 198,573	38%	\$ 76,053	\$ 122,520	\$ 122,520	\$ -
Subtotal - New Vehicles to Maintain Status Quo		\$ 3,567,912	\$ 1,783,956	\$ 1,783,956		\$ 683,255	\$ 1,100,701	\$ 1,100,701	\$ -

APPENDIX B.2

TABLE 2

COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
AMBULANCE SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs	
					Replacement & BTE Shares			DC Eligible 2025-2034	Post 2034
2.4 New Vehicles to Achieve 75% Response Rate									
2.4.1 2 New Vehicles	2028	\$ 794,292	\$ 397,146	\$ 397,146	91%	\$ 360,525	\$ 36,621	\$ 36,621	\$ -
2.4.2 6 New Vehicles	2029	\$ 2,382,876	\$ 1,191,438	\$ 1,191,438	91%	\$ 1,081,574	\$ 109,864	\$ 109,864	\$ -
2.4.3 6 New Vehicles	2030	\$ 2,382,876	\$ 1,191,438	\$ 1,191,438	91%	\$ 1,081,574	\$ 109,864	\$ 109,864	\$ -
Subtotal - New Vehicles to Achieve 75% Response Rate		\$ 5,560,044	\$ 2,780,022	\$ 2,780,022		\$ 2,523,673	\$ 256,349	\$ 256,349	\$ -
2.5 Studies									
2.5.1 Service Delivery Review (SDR)	2025	\$ 55,000	\$ 27,500	\$ 27,500	91%	\$ 24,964	\$ 2,536	\$ 2,536	\$ -
2.5.2 Essex-Windsor EMS Master Plan Update	2029	\$ 60,000	\$ 30,000	\$ 30,000	38%	\$ 11,490	\$ 18,510	\$ 18,510	\$ -
2.5.3 Essex-Windsor EMS Master Plan Update	2034	\$ 60,000	\$ 30,000	\$ 30,000	38%	\$ 11,490	\$ 18,510	\$ 18,510	\$ -
Subtotal - Studies		\$ 175,000	\$ 87,500	\$ 87,500		\$ 47,944	\$ 39,556	\$ 39,556	\$ -
TOTAL AMBULANCE SERVICES		\$ 65,039,956	\$ 32,519,978	\$ 32,519,978		\$ 26,996,932	\$ 5,523,046	\$ 5,523,046	\$ -

Residential Development Charge Calculation		
Residential Share of 2025-2034 DC Eligible Costs	67%	\$3,700,063
10-Year Growth in Population in New Units		32,296
Unadjusted Development Charge per Capita		\$114.57
Non-Residential Development Charge Calculation		
Non-Residential Share of 2025-2034 DC Eligible Costs	33%	\$1,822,984
10-Year Growth in Square Metres		1,243,550
Unadjusted Development Charge per Square Metre		\$1.47

2025-2034 Net Funding Envelope	\$6,924,403
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Appendix B.3

Long-Term Care

Long-Term Care

The County provides Long-Term Care services at the Sun Parlor Home in Leamington. The benefits of Long-Term Care are deemed to be County-wide for the purpose of calculating the development charge.

Table 1 15-Year Historical Service Level and Calculation of Maximum Allowable Funding Envelope

The 15-year historical inventory for buildings, land, furniture, and equipment at the Sun Parlor Home are set out in Table 1 and are valued at \$111.2 million. Of this total, \$102.3 million is attributable to the cost to replace the current facility. The land associated with the facility, not counting the woodlot and cemetery on the property, is 6.7 hectares and is valued at \$3.9 million. Furniture, equipment, and other moveable capital assets and land improvements at the facility site amount to \$5.0 million.

The combined replacement value of the long-term care inventory of \$111.2 million yields a 15-year historical service level of \$594.01 per capita. When multiplied by the County’s 10-year population growth to 2034 (25,576), a maximum allowable funding envelope of \$15.2 million is established.

Table 2 2025 – 2034 Capital Program and Calculation of Development Charges

The development-related capital program for Long-Term Care is consistent with a plan to replace Sun Parlor Home with a new facility, as set out in the June 19, 2024, Sun Parlor Home Building Condition Assessment (Staff Report 2024-0619-SPH-R03-JBK). This report notes that in 2024, the County had 1,098 long-term care beds, with 206 beds (19%) located at Sun Parlor Home.

Based on the County of Essex Growth Analysis Report (2022), the County's current level of service is one long term bed per 43 persons aged 65+. By 2036, the population aged 65+ is forecast to grow by 13,700, which would require an additional 318 beds to maintain the current ratio of beds per capita. Of these 318 beds, 60 new beds would need to be at the new Sun Parlor Home facility, assuming that all long-term care facilities are expanded proportionally over the period.

The DC study forecasts 13% population growth (28,300) in the County between the 10-year planning period from 2025 to 2034. The 2022 Growth Analysis Report states that population growth of the 65+ age group across Ontario will be a key driver of housing growth in the County over the next 30 years. Assuming the growth in the 65+ population is evenly distributed between existing and new residents, 42 additional long term care beds would be needed to meet growth needs, with 8 (19%) allocated to Sun Parlor Home.

The \$3.9 million capital costs for Long Term Care included in the development charge calculation include the estimated cost of these 8 new beds, assuming \$500,000 per bed. No grants or BTE share have been identified.

Land acquisition for the reconstruction of the entire facility is estimated at \$2.8 million, for which a BTE share of 96% (\$2.7 million) has been deducted based on the share of new beds associated with the development-related need (8 beds).

The resulting development charge eligible share for the planning period to 2034 is \$4.0 million, 100% of which is apportioned to residential development. This translates to a charge of \$125.07 per capita.

LONG-TERM CARE SUMMARY				
15-year Hist.	2025 - 2034		Calculated	
Service Level	Development-Related Capital Program		Development Charge	
per capita	Total	Net DC Recoverable	\$/capita	\$/sq.m
\$594.01	\$6,719,775	\$4,039,189	\$125.07	\$0.00

APPENDIX B.3
TABLE 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
LONG-TERM CARE

BUILDINGS Facility Name	# of Square Feet															UNIT COST (\$/sq.ft.)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Sun Parlor Home	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	\$ 660
Total (sq.ft.)	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	155,000	
Total (\$000)	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	\$102,300.0	

LAND Facility Name	# of Hectares															UNIT COST (\$/ha)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Sun Parlor Home	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	9.76	\$400,000
Less Woodlot and Cemetery	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	(3.07)	
Total (ha)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	
Total (\$000)	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	\$3,904.0	

FURNITURE, EQUIPMENT & OTHER Type	Total Value of Furniture & Equipment (\$)															
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Equipment	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	\$2,319,000	
Furniture and Other	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	\$1,359,000	
Land Improvements	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	\$1,289,000	
Total (\$000)	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	\$4,967.0	

APPENDIX B.3
TABLE 1

COUNTY OF ESSEX
CALCULATION OF SERVICE LEVELS
LONG-TERM CARE

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Historical Population	177,698	177,891	178,659	179,430	180,205	180,983	181,765	183,997	186,256	188,543	190,858	193,200	199,999	205,595	209,834

INVENTORY SUMMARY (\$000)

Buildings	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300	\$102,300
Land	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904	\$3,904
Furniture, Equipment & Other	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967	\$4,967
Total (\$000)	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0	\$111,171.0

SERVICE LEVEL (\$/capita)

Average
Service Level

Buildings	\$575.70	\$575.07	\$572.60	\$570.14	\$567.69	\$565.25	\$562.81	\$555.99	\$549.24	\$542.58	\$536.00	\$529.50	\$511.50	\$497.58	\$487.53	\$546.61
Land	\$21.97	\$21.95	\$21.85	\$21.76	\$21.66	\$21.57	\$21.48	\$21.22	\$20.96	\$20.71	\$20.45	\$20.21	\$19.52	\$18.99	\$18.61	\$20.86
Furniture, Equipment & Other	\$27.95	\$27.92	\$27.80	\$27.68	\$27.56	\$27.44	\$27.33	\$27.00	\$26.67	\$26.34	\$26.02	\$25.71	\$24.84	\$24.16	\$23.67	\$26.54
Total (\$/capita)	\$625.62	\$624.94	\$622.25	\$619.58	\$616.91	\$614.26	\$611.62	\$604.20	\$596.87	\$589.63	\$582.48	\$575.42	\$555.86	\$540.73	\$529.80	\$594.01

COUNTY OF ESSEX
CALCULATION OF MAXIMUM ALLOWABLE FUNDING ENVELOPE
LONG-TERM CARE

Funding Envelope Calculation	
15-Year Average Service Level (2010-2024)	\$594.01
Net Population Growth (2025-2034)	25,576
Maximum Allowable Funding Envelope	\$15,192,510

APPENDIX B.3

TABLE 2

COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
LONG-TERM CARE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs	
					Replacement & BTE Shares			DC Eligible 2025-2034	Post 2034
3.0 LONG-TERM CARE									
3.1 Buildings, Land & Furnishings									
3.1.1 Land Aquisition for Sun Parlor Home Rebuild	Various	\$ 2,783,040	\$ -	\$ 2,783,040	96%	\$ 2,680,586	\$ 102,454	\$ 102,454	\$ -
3.1.2 Construction Cost of Sun Parlor Home Rebuild (8 beds)	Various	\$ 3,936,735	\$ -	\$ 3,936,735	0%	\$ -	\$ 3,936,735	\$ 3,936,735	\$ -
Subtotal - Buildings, Land & Furnishings		\$ 6,719,775	\$ -	\$ 6,719,775		\$ 2,680,586	\$ 4,039,189	\$ 4,039,189	\$ -
TOTAL LONG-TERM CARE		\$ 6,719,775	\$ -	\$ 6,719,775		\$ 2,680,586	\$ 4,039,189	\$ 4,039,189	\$ -

Residential Development Charge Calculation		
Residential Share of 2025-2034 DC Eligible Costs	100%	\$4,039,189
10-Year Growth in Population in New Units		32,296
Unadjusted Development Charge per Capita		\$125.07
Non-Residential Development Charge Calculation		
Non-Residential Share of 2025-2034 DC Eligible Costs	0%	\$0
10-Year Growth in Square Metres		1,243,550
Unadjusted Development Charge per Square Metre		\$0.00

2025-2034 Net Funding Envelope \$15,192,510

Appendix B.4

Waste Diversion

Waste Diversion

The costs of waste collection and diversion are eligible for DC recovery under the DCA. Waste management is co-ordinated regionally with the City of Windsor by a Joint Board of Management. For future organics collection, services will be cost-shared with the City of Windsor on a 50:50 basis and provided to residential customers.

Table 1 15-Year Historical Service Levels and Calculation of Maximum Allowable Funding Envelope

The 15-year historical inventory of capital assets for Waste Diversion includes buildings totaling approximately 495,300 square feet and valued at \$17.3 million, of which \$8.6 million is the County’s share. The buildings are situated on 7.0 hectares of land, valued at \$6.0 million, of which the County share is \$3.0 million.

The County’s share of associated furniture and equipment is valued at \$2.0 million. Finally, the City and County operates the service using 11 vehicles valued at \$4.7 million, with the County’s share valued at \$2.3 million.

The total current replacement value of the City’s share of the capital assets is \$15.9 million. The 15-year historical average service level is \$92.24 per capita and this, multiplied by the 10-year forecast net population growth (25,576), results in a 10-year maximum allowable funding envelope of \$2.4 million.

Table 2 2025 – 2034 Capital Program and Calculation of Development Charges

The Waste Diversion capital program includes the construction of a new Organic Waste Processing Facility for \$45.0 million, the retrofit of an existing recycling facility to an Organic Transfer Station for \$3.7 million, and the purchase of additional organic waste collection vehicles at a cost of \$499,600.

The City’s share of the cost of the program, \$24.4 million, has been deducted from the calculation. Of the remaining \$24.8 million that is attributable to the County, \$21.9 million has been removed as a BTE share. The BTE share is an estimate of the share of the capital investment that will accrue to existing residents of the service area (City and County) over the 10-year planning period.

Of the \$2.9 million in development-related capital costs, \$2.4 million, equal to maximum allowable funding envelope, has been carried forward to the development charge calculation. The remaining “post period benefit” share of \$575,500 has been allocated to development occurring beyond the 10-year planning period.

The development charge costs eligible for recovery amount to \$2.4 million and are allocated 100% to residential development. This results in a charge of \$73.05 per capita.

WASTE DIVERSION SUMMARY				
15-year Hist.	2025 - 2034		Calculated	
Service Level	Development-Related Capital Program		Development Charge	
per capita	Total	Net DC Recoverable	\$/capita	\$/sq.m
\$92.24	\$49,199,600	\$2,359,085	\$73.05	\$0.00

APPENDIX B.4
TABLE 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
WASTE DIVERSION

County Share of Joint Services Agreement with Windsor

50%

BUILDINGS Branch Name	# of Square Feet															UNIT COST (\$/sq.ft.)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Environmental Services Admin Building & Garage	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	\$330
MHSW Building (Household Chemical Waste)	2,541	2,541	2,541	2,541	2,541	2,541	2,541	2,541	2,541	2,541	2,541	2,541	2,541	2,541	2,541	\$130
Container Recycling Building	33,323	33,323	33,323	33,323	33,323	33,323	33,323	33,323	33,323	33,323	33,323	33,323	33,323	33,323	33,323	\$160
Fibre Recycling Building	25,231	25,231	25,231	25,231	25,231	25,231	25,231	25,231	25,231	25,231	25,231	25,231	25,231	25,231	25,231	\$230
Attended Scale House & Public Drop Off Area	70,229	70,229	70,229	70,229	70,229	70,229	70,229	70,229	70,229	70,229	70,229	70,229	70,229	70,229	70,229	\$20
Unattended Scale House	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	\$5
Regional Landfill Compost Pad	355,532	355,532	355,532	355,532	355,532	355,532	355,532	355,532	355,532	355,532	355,532	355,532	355,532	355,532	355,532	\$10
Total (sq.ft.)	495,319	495,319	495,319	495,319	495,319	495,319	495,319	495,319	495,319	495,319	495,319	495,319	495,319	495,319	495,319	
Total (\$000)	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	\$17,279.9	
County of Essex Share Total - 50% (\$000)	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	

LAND Branch Name	# of Hectares															UNIT COST (\$/ha)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
3540 North Service Road	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	\$1,000,000
3820 North Service Road	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	\$1,000,000
Regional Landfill Compost Pad	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	\$400,000
Windsor Compost Pad	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	\$1,000,000
Total (ha)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Total (\$000)	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	\$6,019.8	
County of Essex Share Total - 50% (\$000)	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	

APPENDIX B.4
TABLE 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
WASTE DIVERSION

FURNITURE & EQUIPMENT Type	# of Furniture & Equipment															UNIT COST
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(\$/item)
Environmental Services Admin Building & Garage (Furni	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$36,000
Litter Bins for Recyclables on the Public Right-of-Way	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	\$2,100
Container Building Equipment	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$2,970,000
Scale Equipment	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$55,700
TCM Forklift FD25-T3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$33,400
John Deere 624K Loader	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$193,800
John Deere 244J Base Loader with Bucket	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$83,100
Caterpillar 930K Wheel Loader	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$175,100
CAT 420F Backhoe	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$113,500
Estimate for office & cafeteria furniture	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$42,900
Total (#)	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	
Total (\$000)	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	\$3,913.5	
County of Essex Share Total - 50% (\$000)	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	

VEHICLES Type	# of Vehicles															UNIT COST
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(\$/vehicle)
Recycling Collection (Contract)	8	9	9	9	10	10	10	10	10	10	10	10	10	10	4	\$515,000
Yard Waste Collection (Contract)	4	4	4	4	7	7	7	7	7	7	6	6	6	6	6	\$429,000
Ford F150 Pick-up	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$17,000
Total (#)	13	14	14	14	18	18	18	18	18	18	17	17	17	17	11	
Total (\$000)	\$5,853.0	\$6,368.0	\$6,368.0	\$6,368.0	\$8,170.0	\$8,170.0	\$8,170.0	\$8,170.0	\$8,170.0	\$8,170.0	\$7,741.0	\$7,741.0	\$7,741.0	\$7,741.0	\$4,651.0	
County of Essex Share Total - 50% (\$000)	\$2,926.5	\$3,184.0	\$3,184.0	\$3,184.0	\$4,085.0	\$4,085.0	\$4,085.0	\$4,085.0	\$4,085.0	\$4,085.0	\$3,870.5	\$3,870.5	\$3,870.5	\$3,870.5	\$2,325.5	

APPENDIX B.4
TABLE 1

COUNTY OF ESSEX
CALCULATION OF SERVICE LEVELS
WASTE DIVERSION

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Historical Population	177,698	177,891	178,659	179,430	180,205	180,983	181,765	183,997	186,256	188,543	190,858	193,200	199,999	205,595	209,834

INVENTORY SUMMARY (\$000)

Buildings	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9	\$8,639.9
Land	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9	\$3,009.9
Furniture & Equipment	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8	\$1,956.8
Vehicles	\$2,926.5	\$3,184.0	\$3,184.0	\$3,184.0	\$4,085.0	\$4,085.0	\$4,085.0	\$4,085.0	\$4,085.0	\$4,085.0	\$3,870.5	\$3,870.5	\$3,870.5	\$3,870.5	\$2,325.5
Total (\$000)	\$16,533.1	\$16,790.6	\$16,790.6	\$16,790.6	\$17,691.6	\$17,691.6	\$17,691.6	\$17,691.6	\$17,691.6	\$17,691.6	\$17,477.1	\$17,477.1	\$17,477.1	\$17,477.1	\$15,932.1

SERVICE LEVEL (\$/capita)

Average
Service Level

Buildings	\$48.62	\$48.57	\$48.36	\$48.15	\$47.94	\$47.74	\$47.53	\$46.96	\$46.39	\$45.82	\$45.27	\$44.72	\$43.20	\$42.02	\$41.18	\$46.17
Land	\$16.94	\$16.92	\$16.85	\$16.77	\$16.70	\$16.63	\$16.56	\$16.36	\$16.16	\$15.96	\$15.77	\$15.58	\$15.05	\$14.64	\$14.34	\$16.08
Furniture & Equipment	\$11.01	\$11.00	\$10.95	\$10.91	\$10.86	\$10.81	\$10.77	\$10.63	\$10.51	\$10.38	\$10.25	\$10.13	\$9.78	\$9.52	\$9.33	\$10.46
Vehicles	\$16.47	\$17.90	\$17.82	\$17.75	\$22.67	\$22.57	\$22.47	\$22.20	\$21.93	\$21.67	\$20.28	\$20.03	\$19.35	\$18.83	\$11.08	\$19.53
Total (\$/capita)	\$93.04	\$94.39	\$93.98	\$93.58	\$98.17	\$97.75	\$97.33	\$96.15	\$94.99	\$93.83	\$91.57	\$90.46	\$87.39	\$85.01	\$75.93	\$92.24

COUNTY OF ESSEX
CALCULATION OF MAXIMUM ALLOWABLE FUNDING ENVELOPE
WASTE DIVERSION

Funding Envelope Calculation	
15-Year Average Service Level (2010-2024)	\$92.24
Net Population Growth (2025-2034)	25,576
Maximum Allowable Funding Envelope	\$2,359,085

APPENDIX B.4

TABLE 2

COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
WASTE DIVERSION

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs	
					Replacement & BTE Shares			DC Eligible 2025-2034	Post 2034
4.0 WASTE DIVERSION									
4.1 Buildings, Land & Furnishings									
4.1.1 Organic Waste Processing Facility	2030	\$ 45,000,000	\$ 22,500,000	\$ 22,500,000	90%	\$ 20,250,000	\$ 2,250,000	\$ 1,674,485	\$ 575,515
4.1.2 Organic Transfer Station	2025	\$ 3,700,000	\$ 1,850,000	\$ 1,850,000	90%	\$ 1,665,000	\$ 185,000	\$ 185,000	\$ -
4.1.3 Additional Organic Waste Collection Vehicles	Various	\$ 499,600	\$ -	\$ 499,600	0%	\$ -	\$ 499,600	\$ 499,600	\$ -
Subtotal - Buildings, Land & Furnishings		\$ 49,199,600	\$ 24,350,000	\$ 24,849,600		\$ 21,915,000	\$ 2,934,600	\$ 2,359,085	\$ 575,515
TOTAL WASTE DIVERSION		\$ 49,199,600	\$ 24,350,000	\$ 24,849,600		\$ 21,915,000	\$ 2,934,600	\$ 2,359,085	\$ 575,515

Residential Development Charge Calculation

Residential Share of 2025-2034 DC Eligible Costs	100%	\$2,359,085
10-Year Growth in Population in New Units		32,296
Unadjusted Development Charge per Capita		\$73.05

Non-Residential Development Charge Calculation

Non-Residential Share of 2025-2034 DC Eligible Costs	0%	\$0
10-Year Growth in Square Metres		1,243,550
Unadjusted Development Charge per Square Metre		\$0.00

2025-2034 Net Funding Envelope \$2,359,085

Appendix B.5

Development-Related Studies

Development-Related Studies

The DCA allows a development charge by-law to provide for a class of service consisting of studies, including development charge studies, in respect of any eligible service.

Table 1 2025 – 2034 Capital Program and Calculation of Development Charges

As shown in Table 1, the 2025 – 2034 gross cost for development-related studies attributed to new development is \$440,000. The capital program accounts for various development-related studies including two Development Charges Studies (one every five years), an Official Plan, a Regional Employment Land Strategy, and Regional Growth Projections.

Given Development Charges Studies are undertaken to assess the cost of growth and development, the full cost of these studies has been brought forward to the development charge calculation. The full cost of the Regional Employment Land Strategy and Regional Growth Projections have similarly been brought forward to the development charge calculation.

A BTE share of 50%, or \$100,000, has been deducted from the Official Plan Review.

The development charge eligible share of the program totals \$340,000, all of which is eligible for recovery over the planning period to 2034.

The total development charge eligible amount (\$340,000) is apportioned 67% (\$227,800) to residential development and 33% (\$112,200) to non-residential development. The resulting charges for Development-Related Studies are \$7.05 per capita for residential development and \$0.09 per square metre for non-residential development.

DEVELOPMENT-RELATED STUDIES SUMMARY			
2025 - 2034		Calculated	
Development-Related Capital Program		Development Charge	
Total	Net DC Recoverable	\$/capita	\$/sq.m
\$440,000	\$340,000	\$7.05	\$0.09

APPENDIX B.5

TABLE 1

COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
DEVELOPMENT-RELATED STUDIES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs	
					Replacement & BTE Shares			DC Eligible 2025-2034	Post 2034
5.0 DEVELOPMENT-RELATED STUDIES									
5.1 Planning Studies									
5.1.1 Development Charge Study	2025	\$ 60,000	\$ -	\$ 60,000	0%	\$ -	\$ 60,000	\$ 60,000	\$ -
5.1.2 Development Charge Study	2034	\$ 60,000	\$ -	\$ 60,000	0%	\$ -	\$ 60,000	\$ 60,000	\$ -
5.1.3 Regional Employment Land Strategy	2025	\$ 60,000	\$ -	\$ 60,000	0%	\$ -	\$ 60,000	\$ 60,000	\$ -
5.1.4 Regional Growth Projections	2028	\$ 60,000	\$ -	\$ 60,000	0%	\$ -	\$ 60,000	\$ 60,000	\$ -
5.1.5 Official Plan Review	2033	\$ 200,000	\$ -	\$ 200,000	50%	\$ 100,000	\$ 100,000	\$ 100,000	\$ -
Subtotal - Planning Studies		\$ 440,000	\$ -	\$ 440,000		\$ 100,000	\$ 340,000	\$ 340,000	\$ -
TOTAL DEVELOPMENT-RELATED STUDIES		\$ 440,000	\$ -	\$ 440,000		\$ 100,000	\$ 340,000	\$ 340,000	\$ -

Residential Development Charge Calculation		
Residential Share of 2025-2034 DC Eligible Costs	67%	\$227,777
10-Year Growth in Population in New Units		32,296
Unadjusted Development Charge per Capita		\$7.05
Non-Residential Development Charge Calculation		
Non-Residential Share of 2025-2034 DC Eligible Costs	33%	\$112,223
10-Year Growth in Square Metres		1,243,550
Unadjusted Development Charge per Square Metre		\$0.09

Appendix C:

Services Related to a Highway

Technical Appendix

Services Related to a Highway Technical Appendix

Section 12.V.2 of the County Official Plan states that:

“County Development Charges are an important financial tool that can be used to help fund the transportation-related infrastructure that will be needed to support the planned growth. These charges, together with grants from other levels of government will be needed to assist with the funding of these major capital projects over the life of this Plan.”

This appendix provides the analysis undertaken to establish the development charge rates for the “Services Related to a Highway” (i.e. transportation-related) service. The service includes all roads and related infrastructure related to a highway as defined in subsection 1(1) of the *Municipal Act*, 2001, including the road network, bridges and culverts, streetlights, intersection improvements, traffic signalization, sidewalks, cycling lanes, transit priority measures, and other related structures. County owned public works facilities, land, fleet, and associated furniture and equipment are also included in this service.

The capital planning and management of all roads and related infrastructure in the County is the responsibility of the Infrastructure and Planning Services Department. The Department also provides review and inspection services to facilitate new development and maintains service standards for existing infrastructure. The basis of the development-related capital program for Services Related to a Highway infrastructure is the County’s long-term transportation capital forecast, supplemented by discussions with County staff and Council.

The projects identified in the capital program are required to service the demands of new development between 2025 and 2041, subject to annual capital budget reviews. They align with the County’s long-term capital plan

funding model and the approved County-Wide Active Transportation Study (CWATS) Master Plan. While the need for individual works in the program is in part driven by traffic arising from development at specific locations, the benefits of the program will be broadly distributed across the entire County road network. As such, a County-wide development charge has been calculated.

Table 2 sets out the 2025 to 2041 development-related capital program and the development charge calculations for the Services Related to a Highway. The description, cost, and distribution of benefits of the projects included in the program have been developed by County staff and the consulting team. Given the County does not currently collect development charges, no reserve funds are available to fund development-related costs.

The content of the tables is as follows:

Table 1	Historical Service Levels
Table 2	Development Related Capital Program
Table 3	Summary of Development-Related Capital Program and Calculation of Development Charges

The tables provide the background data and analysis undertaken to arrive at the calculated development charge rates. An overview of the content and purpose of each of the tables is given below.

Table 1 Historical Service Levels

The 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 County over the 15-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 has been defined as 2010 to 2024.

O. Reg. 82/98 requires that when defining and determining historical service levels both the quantity and quality of service be taken into consideration.

The County currently owns 122,600 square feet of public works buildings including the main Maintenance Depot, and depots at the West End, Tilbury North, West Pike, and Gesto locations. The current replacement value of the buildings is estimated at \$16.8 million. The 23.4 hectares of land associated with the buildings is valued at \$4.7 million. Public works equipment and vehicles are valued at \$7.2 million and \$12.9 million respectively.

The County road network is extensive, with more than 1,500 lane kilometres of roadway. The current replacement value of the road network is estimated at \$598.4 million, including \$237.2 million in road construction and \$361.2 million in land value. There are 42 road signals and crossings located throughout the County, which are valued at \$2.9 million, and 4 roundabouts, which are valued at \$9.5 million. Active transportation, including paved shoulders, multi-use trails, and cycle paths, and bridges and culverts are valued at \$61.4 million and \$273.7 million respectively.

The total value of the Services Related to a Highway capital infrastructure is estimated to be \$987.5 million. The 15-year historical average service level is \$3,952.44 per capita and employment and this, multiplied by the 16-year forecast of net population and employment growth, results in a maximum allowable funding envelope of \$296.2 million (74,929 net population and employment growth x historical service level of \$3,952.44).

No uncommitted excess capacity has been identified, and as such, no deductions are made from the funding envelope.

Table 2 2025 – 2041 Capital Program and Calculation of Development Charges

The 16-year development-related capital plan for Services Related to a Highway aligns with the County’s long-term capital funding model and approved County-Wide Active Transportation Study (CWATS) Master Plan. The capital program includes 230 separate projects, including a number of significant road capacity expansion works, covering environmental assessments, property acquisition, detailed design, and road construction, as well as intersection improvements and active transportation expansion works.

The capital program identifies capital works throughout the County and is set out in Table 2. The total cost of the program is \$715.1 million. The following describes the project types included in the program:

A. Capacity Enhancing Projects

Capacity enhancing projects are those that result in additional lanes being added to a stretch of County roadway in response to increased traffic arising from development. The cost attributable to the additional lanes—either 33% or 50% depending on the number of lanes—are considered to be eligible for development charge funding. Project costs associated with the reconstruction of existing lanes are excluded from the development charge as a benefit to existing (BTE) share.

i. Environmental Assessment Costs

Environmental assessments in the amount of \$1.6 million are required for the expansion of County Roads 46, 9, and 19. No grants or subsidies have been identified for this work. BTE shares corresponding to the additional lanes associated with each project have been applied to each environmental

assessment. The total BTE share amounts to \$800,000 (50%), resulting in \$800,000 being brought forward to the development charge calculation.

ii. Property Acquisition Costs

Approximately \$15.1 million in property acquisition has been identified for projects related to the expansion of Lauzon Parkway and County Roads 22, 46, and 9. Of that \$15.1 million, \$7.1 million has been removed as a BTE share, with BTE shares for each acquisition corresponding to the additional lanes associated with each construction project. Another \$666,700 in costs associated with County Road 22 Corridor – Phase 3 is deemed to benefit development beyond 2041 and may be considered for recovery in a subsequent development charge background study. The remaining \$7.4 million is considered to benefit development within the 2025 – 2041 planning period.

iii. Detailed Design Costs

The capital program includes \$7.3 million of costs associated with detailed design of capacity enhancing projects. Approximately \$3.3 million of these costs has been removed as a BTE share has been removed, with BTE shares for each design component corresponding to the additional lanes associated with each construction project. Additionally, the \$116,700 associated with County Road Corridor – Phase 3 has been removed as a post-period benefit. The remaining \$3.8 million is considered development-related within the 2025 – 2041 planning period and is carried forward to the development charge calculation.

iv. Construction Program: Roadway Expansion Project Costs

The capital program includes \$529.5 million in roadway expansion project costs throughout the County road network. No grants or subsidies have been identified. Of the net cost of \$529.5 million, a BTE share of \$258.4 million (49%) has been removed, with BTE shares for each phase of construction

project corresponding to the additional lanes associated with project. Additionally, 50% of the expansion work for County Roads 9 and 42 (\$48.0 million) have been removed from the development charge calculation as a post-period benefit on the basis that these works will not be undertaken until 2035. The remaining \$223.1 million considered to be related to development within the 2025-2041 planning period.

B. Intersection Improvements

Intersection improvements included in the capital program are intended to improve traffic flow by enhancing the capacity (including lane capacity) of intersections. BTE shares for these works have been set at 50% to reflect the broad benefits of these works and to recognize the need, in some cases, to address existing service level deficiencies.

i. Detailed Design Costs

Detailed design costs for intersections at County Roads 19 and 42 amount to \$2.3 million. No grants or subsidies have been identified. A \$1.1 million BTE share (50%) has been removed from the development charge calculation, and the remaining \$1.1 million is considered to be related to development occurring within the 2025 – 2041 planning period.

ii. Construction Program: Roadway Expansion Project Costs

Intersection construction costs total \$84.5 million. No grants or subsidies have been identified. A \$42.4 million BTE share (50%) has been removed from the development charge calculation, and the remaining \$42.1 million is considered to be related to development occurring within the 2025 – 2041 planning period.

C. Active Transportation

The active transportation projects included in the study have been informed by the approved CWATS Master Plan. They include bike lanes, buffered paved shoulders, cycle tracks, multi-use paths, paved shoulders, separated bike lanes, and signed routes.

The total cost of active transportation projects amounts to \$74.8 million. Approximately \$21.1 million has been removed from the development charge calculation on the basis that it will be funded by local municipal partners (LMPs) in the County. A BTE share of \$41.3 million (77%) has also been deducted from the net cost based on the ratio of population and employment growth over the 16-year planning period to the population and employment of the County in 2034 (23%). The rationale for the BTE share is that the investment in active transportation will benefit both existing residents and businesses and residents of new development and businesses in equal measure.

The remaining \$12.4 million is considered to be related to development over the 2025-2034 planning period.

D. Summary of Capital Costs and Calculation of Development Charges

The total cost of the Services Related to a Highway capital program is \$715.1 million. With \$21.1 million in LMP funding, the net cost of the program is \$693.9 million.

BTE shares of \$354.4 million (51%), and post-period benefit shares of \$48.8 million, have been excluded from the development charge calculation. The remaining \$290.7 million is considered eligible for development charge recovery within the 2025 – 2041 planning period.

The development-related capital cost is allocated 68%, or \$197.2 million, to the residential sector. This residential share (\$197.2 million) is divided by the anticipated growth in population in new units over the planning period (55,588) which yields a development charge of \$3,547 per capita. The non-residential share of the capital program (\$93.5 million) is divided by the anticipated growth in square metres over the period to 2041 (2.1 million sq.m.) which yields a charge of \$44.78 per square metre.

SERVICES RELATED TO A HIGHWAY SUMMARY				
15-year Hist.	2025 - 2041		Calculated	
Service Level	Development-Related Capital Program		Development Charge	
per capita/emp	Total	Net DC Recoverable	\$/capita	\$/sq.m
\$3,952.44	\$715,053,833	\$290,705,831	\$3,547.32	\$44.78

APPENDIX C.1
TABLE 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
SERVICES RELATED TO A HIGHWAY

BUILDINGS - PUBLIC WORKS Facility Name	# of Square Feet															UNIT COST (\$/sq.ft.)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Maintenance Depot	52,473	52,473	52,473	52,473	52,473	52,473	52,473	52,473	52,473	52,473	52,473	52,473	52,473	52,473	52,473	\$127
West End Depot	30,350	30,350	30,350	30,350	30,350	30,350	30,350	30,350	30,350	30,350	30,350	30,350	30,350	30,350	30,350	\$144
Tilbury North Depot	15,322	15,322	15,322	15,322	15,322	15,322	15,322	15,322	15,322	15,322	15,322	15,322	15,322	15,322	15,322	\$147
West Pike Depot	21,576	21,576	21,576	21,576	21,576	21,576	21,576	21,576	21,576	21,576	21,576	21,576	21,576	21,576	21,576	\$145
Gesto Depot	2,852	2,852	2,852	2,852	2,852	2,852	2,852	2,852	2,852	2,852	2,852	2,852	2,852	2,852	2,852	\$135
Total (sq.ft.)	122,574	122,574	122,574	122,574	122,574	122,574	122,574	122,574	122,574	122,574	122,574	122,574	122,574	122,574	122,574	
Total (\$000)	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	

LAND - PUBLIC WORKS Facility Name	# of Hectares															UNIT COST (\$/ha)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Maintenance Depot	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	\$200,000
West End Depot	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	\$200,000
Tilbury North Depot	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	\$200,000
West Pike Depot	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	\$200,000
Gesto Depot	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	\$200,000
Total (ha)	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	
Total (\$000)	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	

APPENDIX C.1
TABLE 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
SERVICES RELATED TO A HIGHWAY

EQUIPMENT	Total Value of Furniture & Equipment (\$)															
Type	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Machinery & Equipment	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	\$7,200,000	
Total (\$000)	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	

VEHICLES		Total Value of Vehicles (\$)														
Type		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Vehicles		\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000	\$12,900,000
Total (\$000)		\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0

COUNTY ROADS		# of Lane Kilometres															UNIT COST
Type of Road	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(\$/lane km)	
Urban 2 Lanes	329	329	329	329	329	329	329	329	329	329	329	329	329	329	329	\$175,000	
Rural 2 Lanes	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	\$150,000	
Urban 4 Lanes	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	\$175,000	
Rural 4 Lanes	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	\$150,000	
Total (lane km)	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0	1,505.0		
Total (\$000)	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0		

SIGNALS & CROSSINGS	# of Signals and Crossings																UNIT COST
Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	(\$/unit)	
Signalized Intersections	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	\$70,000	
Pedestrian Safe Crossing at County Road & Greenway, Tecumseh	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$50,000	
Total (#)	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0		
Total (\$000)	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0		

APPENDIX C.1
TABLE 1

COUNTY OF ESSEX
INVENTORY OF CAPITAL ASSETS
SERVICES RELATED TO A HIGHWAY

ROUNDABOUTS Description	# of Roundabouts															UNIT COST (\$/unit)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Roundabouts	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	\$2,375,000
Total (#)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Total (\$000)	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	

ACTIVE TRANSPORTATION Description	# of Kilometres															UNIT COST (\$/km)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Paved Shoulders	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	\$165,230
Multiuse Trails	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	\$100,000
CSS (1 or 2 way cycle paths)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$121,000
Total (km)	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	
Total (\$000)	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	

BRIDGES & CULVERTS Description	# of Bridges and Culverts															UNIT COST (\$/unit)
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Bridges	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	\$2,403,950
Culverts	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	\$573,820
Total (#)	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	
Total (\$000)	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	

APPENDIX C.1
TABLE 1

COUNTY OF ESSEX
CALCULATION OF SERVICE LEVELS
SERVICES RELATED TO A HIGHWAY

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Historical Population	177,698	177,891	178,659	179,430	180,205	180,983	181,765	183,997	186,256	188,543	190,858	193,200	199,999	205,595	209,834
Historical Employment	55,662	54,780	56,380	58,027	59,722	61,466	63,260	63,949	64,645	65,349	66,061	66,780	68,237	69,726	71,247
Total Historical Population & Employment	233,360	232,671	235,039	237,457	239,927	242,449	245,025	247,946	250,901	253,892	256,919	259,980	268,236	275,321	281,081

INVENTORY SUMMARY (\$000)

Buildings - Public Works	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5	\$16,800.5
Land - Public Works	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9	\$4,681.9
Equipment	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0	\$7,200.0
Vehicles	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0	\$12,900.0
Land - Roads	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0	\$361,200.0
County Roads	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0	\$237,225.0
Signals & Crossings	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0	\$2,920.0
Roundabouts	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0	\$9,500.0
Active Transportation	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9	\$61,415.9
Bridges & Culverts	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3	\$273,659.3
Total (\$000)	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6	\$987,502.6

SERVICE LEVEL (\$/capita and emp)

	Average Service Level														
Buildings - Public Works	\$71.99	\$72.21	\$71.48	\$70.75	\$70.02	\$69.29	\$68.57	\$67.76	\$66.96	\$66.17	\$65.39	\$64.62	\$62.63	\$61.02	\$59.77
Land - Public Works	\$20.06	\$20.12	\$19.92	\$19.72	\$19.51	\$19.31	\$19.11	\$18.88	\$18.66	\$18.44	\$18.22	\$18.01	\$17.45	\$17.01	\$16.66
Equipment	\$30.85	\$30.94	\$30.63	\$30.32	\$30.01	\$29.70	\$29.38	\$29.04	\$28.70	\$28.36	\$28.02	\$27.69	\$26.84	\$26.15	\$25.62
Vehicles	\$55.28	\$55.44	\$54.88	\$54.33	\$53.77	\$53.21	\$52.65	\$52.03	\$51.41	\$50.81	\$50.21	\$49.62	\$48.09	\$46.85	\$45.89
Land - Roads	\$1,547.82	\$1,552.41	\$1,536.77	\$1,521.12	\$1,505.46	\$1,489.80	\$1,474.14	\$1,456.77	\$1,439.61	\$1,422.65	\$1,405.89	\$1,389.34	\$1,346.58	\$1,311.92	\$1,285.04
County Roads	\$1,016.56	\$1,019.57	\$1,009.30	\$999.02	\$988.74	\$978.45	\$968.17	\$956.76	\$945.49	\$934.35	\$923.35	\$912.47	\$884.39	\$861.63	\$843.97
Signals & Crossings	\$12.51	\$12.55	\$12.42	\$12.30	\$12.17	\$12.04	\$11.92	\$11.78	\$11.64	\$11.50	\$11.37	\$11.23	\$10.89	\$10.61	\$10.39
Roundabouts	\$40.71	\$40.83	\$40.42	\$40.01	\$39.60	\$39.18	\$38.77	\$38.31	\$37.86	\$37.42	\$36.98	\$36.54	\$35.42	\$34.51	\$33.80
Active Transportation	\$263.18	\$263.96	\$261.30	\$258.64	\$255.98	\$253.31	\$250.65	\$247.70	\$244.78	\$241.90	\$239.05	\$236.23	\$228.96	\$223.07	\$218.50
Bridges & Culverts	\$1,172.69	\$1,176.16	\$1,164.31	\$1,152.46	\$1,140.59	\$1,128.73	\$1,116.86	\$1,103.71	\$1,090.71	\$1,077.86	\$1,065.16	\$1,052.62	\$1,020.22	\$993.97	\$973.60
Total (\$/capita and emp)	\$4,231.7	\$4,244.2	\$4,201.4	\$4,158.7	\$4,115.8	\$4,073.0	\$4,030.2	\$3,982.7	\$3,935.8	\$3,889.5	\$3,843.6	\$3,798.4	\$3,681.5	\$3,586.7	\$3,513.2

COUNTY OF ESSEX
CALCULATION OF MAXIMUM ALLOWABLE FUNDING ENVELOPE
SERVICES RELATED TO A HIGHWAY

Funding Envelope Calculation	
15-Year Average Service Level (2010-2024)	\$3,952.44
Net Population & Employment Growth (2025-2041)	74,929
Maximum Allowable Funding Envelope	\$296,152,434



APPENDIX C.1

TABLE 2

COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY

DC Study #	Project	From	To	Municipal Jurisdiction	Anticipated Timing			Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares		DC Eligible 2025-2041	Post 2041
CAPACITY ENHANCING PROJECTS - ENVIRONMENTAL ASSESSMENT														
EA1	CR 46	COW Limits (401)	CR 19	TEC	2025	-	2025	\$500,000	\$0	\$500,000	50%	\$250,000	\$250,000	\$0
EA2	CR 9	Hwy 3	CR 8	LA/TEC	2027	-	2027	\$500,000	\$0	\$500,000	50%	\$250,000	\$250,000	\$0
EA3	CR 19	Highway 3 & CR 22	Lesperance to CR 19	TEC/LS	2025	-	2025	\$600,000	\$0	\$600,000	50%	\$300,000	\$300,000	\$0
SUBTOTAL - CAPACITY ENHANCING PROJECTS - ENVIRONMENTAL ASSESSMENT								\$1,600,000	\$0	\$1,600,000		\$800,000	\$800,000	\$0
CAPACITY ENHANCING PROJECTS - PROPERTY ACQUISITION														
	Lauzon Parkway - City of Windsor Limits (401) to Hwy 3													
PA1	Lauzon Parkway COW Limits (4 lanes)	Hwy 401	CR 46	TEC	2031	-	2031	\$1,500,000	\$0	\$1,500,000	0%	\$0	\$1,500,000	\$0
PA2	Lauzon Parkway (4 lanes)	CR 46	Hwy 3	TEC	2031	-	2031	\$1,500,000	\$0	\$1,500,000	0%	\$0	\$1,500,000	\$0
	CR 22 - Corridor Design													
PA3	CR 22 Corridor - Phase 1	ICRoy	Renaud	LS	2025	-	2025	\$100,000	\$0	\$100,000	67%	\$66,667	\$33,333	\$0
PA4	CR 22 Corridor - Phase 2	Renaud	Rourke	LS	2025	-	2025	\$4,000,000	\$0	\$4,000,000	67%	\$2,666,667	\$1,333,333	\$0
PA5	CR 22 Corridor - Phase 3	Rourke	Belle River	LS	2034	-	2041	\$2,000,000	\$0	\$2,000,000	67%	\$1,333,333	\$0	\$666,667
	CR 46 - COW Limits (401) to CR 19													
PA6	CR 46 - COW Limits	Hwy 401	CR 19	TEC	2025	-	2025	\$5,000,000	\$0	\$5,000,000	50%	\$2,500,000	\$2,500,000	\$0
	CR 9 - Hwy 3 to CR 8													
PA7	CR 9	Hwy 3	CR 8		2035	-	2035	\$1,000,000	\$0	\$1,000,000	50%	\$500,000	\$500,000	\$0
SUBTOTAL - CAPACITY ENHANCING PROJECTS - PROPERTY ACQUISITION								\$15,100,000	\$0	\$15,100,000		\$7,066,667	\$7,366,667	\$666,667

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COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY

DC Study #	Project	From	To	Municipal Jurisdiction	Anticipated Timing			Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares		DC Eligible 2025-2041	Post 2041
CAPACITY ENHANCING PROJECTS - DETAILED DESIGN PROJECTS														
	CR 42/43 - City Limit to Manning Rd. & CR 43													
DD1	CR 42/43 - Phase 3	CR42 & CR19 Roundabout	CR42 from CR19 to Lesperance Rd	TEC	2025	-	2025	\$500,000	\$0	\$500,000	50%	\$250,000	\$250,000	\$0
DD2	CR 42/43 - Phase 4	CR 42	CR 43 to Lesperance Rd (surface)	TEC	2025	-	2025	\$400,000	\$0	\$400,000	50%	\$200,000	\$200,000	\$0
DD3	CR 42/43 - Phase 5	CR 42	CR43 Roundabout to County Limit	TEC	2025	-	2025	\$480,000	\$0	\$480,000	50%	\$240,000	\$240,000	\$0
	Lauzon Parkway - City of Windsor Limits (401) to Hwy 3													
DD4	Lauzon Parkway COW Limits (4 lanes)	Hwy 401	CR 46	TEC	2027	-	2027	\$500,000	\$0	\$500,000	0%	\$0	\$500,000	\$0
DD5	Lauzon Parkway (4 lanes)	CR 46	Hwy 3	TEC	2028	-	2028	\$500,000	\$0	\$500,000	0%	\$0	\$500,000	\$0
	CR 22 - Corridor Design													
DD6	CR 22 Corridor - Phase 1	ICRoy	Renaud	LS	2025	-	2025	\$300,000	\$0	\$300,000	67%	\$200,000	\$100,000	\$0
DD7	CR 22 Corridor - Phase 2	Renaud	Rourke	LS	2025	-	2025	\$450,000	\$0	\$450,000	67%	\$300,000	\$150,000	\$0
DD8	CR 22 Corridor - Phase 3	Rourke	Belle River	LS	2034	-	2041	\$350,000	\$0	\$350,000	67%	\$233,333	\$0	\$116,667
	CR 46 - COW Limits (401) to CR 19													
DD9	CR 46 - COW Limits	Hwy 401	CR 19	TEC	2025	-	2025	\$1,000,000	\$0	\$1,000,000	50%	\$500,000	\$500,000	\$0
	CR 9 - Hwy 3 to CR 8													
DD10	CR 9	Hwy 3	CR 8	LA/TEC	2035	-	2035	\$500,000	\$0	\$500,000	50%	\$250,000	\$250,000	\$0
	CR 42 - CR 19 to CR 25													
DD11	CR 42	Patillo	CR 25	LS	2032	-	2032	\$400,000	\$0	\$400,000	50%	\$200,000	\$200,000	\$0
	CR 19 - Jamsyl to Highway 3													
DD12	CR 19	Jamsyl	CPR	TEC/LS	2025	-	2025	\$500,000	\$0	\$500,000	50%	\$250,000	\$250,000	\$0
DD13	CR 19 - Grade Separation at CPR			TEC/LS	2026	-	2026	\$500,000	\$0	\$500,000	50%	\$250,000	\$250,000	\$0
DD14	CR 19	CR 42	Hwy 401	TEC/LS	2028	-	2028	\$300,000	\$0	\$300,000	50%	\$150,000	\$150,000	\$0
DD15	CR 19	Hwy 401	CR 46	TEC/LS	2029	-	2029	\$300,000	\$0	\$300,000	50%	\$150,000	\$150,000	\$0
DD16	CR 19	CR 46	Hwy 3	TEC/LS	2032	-	2032	\$300,000	\$0	\$300,000	50%	\$150,000	\$150,000	\$0
SUBTOTAL - CAPACITY ENHANCING PROJECTS - DETAILED DESIGN PROJECTS								\$7,280,000	\$0	\$7,280,000		\$3,323,333	\$3,840,000	\$116,667

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COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY

DC Study #	Project	From	To	Municipal Jurisdiction	Anticipated Timing	Length (Lane KM)	Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares	DC Eligible 2025-2041	Post 2041	
CAPACITY ENHANCING PROJECTS - CONSTRUCTION PROGRAM: ROADWAY EXPANSION PROJECTS													
	CR 42/43 - City Limit to Manning Rd. & CR 43												
CP1	CR 42/43 - Phase 3	CR 42 & CR 19 Roundabout	CR 42 from CR 19 to Lesperance Rd	TEC	2025 - 2025	0.60	\$25,000,000	\$0	\$25,000,000	50%	\$12,500,000	\$12,500,000	\$0
CP2	CR 42/43 - Phase 4	CR 42	CR 43 to Lesperance Rd (surface)	TEC	2026 - 2026	1.54	\$15,000,000	\$0	\$15,000,000	50%	\$7,500,000	\$7,500,000	\$0
CP3	CR 42/43 - Phase 5	CR 42	CR 43 Roundabout	TEC	2026 - 2026	0.72	\$7,500,000	\$0	\$7,500,000	50%	\$3,750,000	\$3,750,000	\$0
	Lauzon Parkway - City of Windsor Limits to Hwy 3												
CP4	Lauzon Parkway COW Limits (4 lanes)	Hwy 401	CR 46	TEC	2028 - 2028	1.60	\$15,000,000	\$0	\$15,000,000	0%	\$0	\$15,000,000	\$0
CP5	Lauzon Parkway (4 lanes)	CR 46	Hwy 3	TEC	2029 - 2029	1.50	\$15,000,000	\$0	\$15,000,000	0%	\$0	\$15,000,000	\$0
	CR 22 Corridor												
CP6	CR 22 Corridor - Phase 1	ICRoy	Rourke	LS	2025 - 2025	3.20	\$30,000,000	\$0	\$30,000,000	67%	\$20,000,000	\$10,000,000	\$0
CP7	CR 22 Corridor - Phase 2	Rourke	Belle River	LS	2026 - 2026	1.70	\$22,000,000	\$0	\$22,000,000	67%	\$14,666,667	\$7,333,333	\$0
	CR 46 - COW Limits (401) to CR 19												
CP8	CR 46 - COW Limits	Hwy 401	CR 17	TEC	2026 - 2026	4.56	\$67,000,000	\$0	\$67,000,000	50%	\$33,500,000	\$33,500,000	\$0
CP9	CR 46	CR 17	CR 19	TEC	2026 - 2026	3.45	\$57,000,000	\$0	\$57,000,000	50%	\$28,500,000	\$28,500,000	\$0
	CR 9 - Hwy 3 to CR 8												
CP10	CR 9	Hwy 3	CR 7	LA/TEC	2035 - 2035	4.00	\$50,000,000	\$0	\$50,000,000	50%	\$25,000,000	\$12,500,000	\$12,500,000
CP11	CR 42	CR 7	CR 8	LA/TEC	2035 - 2035	1.45	\$23,000,000	\$0	\$23,000,000	50%	\$11,500,000	\$5,750,000	\$5,750,000
	CR 42 - CR 19 to CR 25												
CP12	CR 42	CR 19	Patillo	LS	2035 - 2035	4.16	\$60,000,000	\$0	\$60,000,000	50%	\$30,000,000	\$15,000,000	\$15,000,000
CP12	CR 42	Patillo	CR 25	LS	2035 - 2035	2.90	\$45,000,000	\$0	\$45,000,000	50%	\$22,500,000	\$11,250,000	\$11,250,000
	CR 19 - Jamsyl to Highway 3												
CP13	CR 19	Jamsyl	CPR	TEC/LS	2026 - 2026	1.53	\$14,000,000	\$0	\$14,000,000	50%	\$7,000,000	\$3,500,000	\$3,500,000
CP14	CR 19	CPR	CR 42	TEC/LS	2027 - 2027	0.90	\$14,000,000	\$0	\$14,000,000	50%	\$7,000,000	\$7,000,000	\$0
CP15	CR 19	CR 42	Hwy 401	TEC/LS	2029 - 2029	4.38	\$14,000,000	\$0	\$14,000,000	50%	\$7,000,000	\$7,000,000	\$0
CP16	CR 19 - Roundabout at CR 34			TEC/LS	2030 - 2030	2.34	\$14,000,000	\$0	\$14,000,000	50%	\$7,000,000	\$7,000,000	\$0
CP17	CR 19	CR 46	Hwy 3	TEC/LS	2033 - 2033	2.54	\$14,000,000	\$0	\$14,000,000	50%	\$7,000,000	\$7,000,000	\$0
	CR 22 Corridor - Phase 4												
CP18	CR 22 Corridor - Phase 4	Belle River	CR 42	LS	2028 - 2028	2.00	\$28,000,000	\$0	\$28,000,000	50%	\$14,000,000	\$14,000,000	\$0
SUBTOTAL - CAPACITY ENHANCING PROJECTS - CONSTRUCTION PROGRAM: ROADWAY EXPANSION PROJECTS							\$529,500,000	\$0	\$529,500,000		\$258,416,667	\$223,083,333	\$48,000,000

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COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY

DC Study #	Project	From	To	Anticipated Timing			Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares		DC Eligible 2025-2041	Post 2041
INTERSECTION IMPROVEMENTS - DETAILED DESIGN PROJECTS													
	CR 42 - CR 19 to CR 25												
IIDD1	CR 42 - Roundabout	CR 42	CR 25	2030	-	2030	\$500,000	\$0	\$500,000	50%	\$250,000	\$250,000	\$0
IIDD2	CR 42 - Roundabout	CR 42	Patillo	2030	-	2030	\$500,000	\$0	\$500,000	50%	\$250,000	\$250,000	\$0
	CR 19 - Jamsyl to Highway 3												
IIDD3	CR 19 - Intersection at CR 46			2030	-	2030	\$400,000	\$0	\$400,000	50%	\$200,000	\$200,000	\$0
IIDD4	CR 19 - Roundabout at CR 34			2031	-	2031	\$300,000	\$0	\$300,000	50%	\$150,000	\$150,000	\$0
SUBTOTAL - INTERSECTION IMPROVEMENTS - DETAILED DESIGN PROJECTS							\$1,700,000	\$0	\$1,700,000		\$850,000	\$850,000	\$0
INTERSECTION IMPROVEMENTS - CONSTRUCTION PROGRAM: ROADWAY EXPANSION PROJECTS													
	CR 22 Corridor												
IICP1	CR 22 Corridor - Light @ Emery & Cul-De-Sacs			2026	-	2026	\$700,000	\$0	\$700,000	67%	\$466,667	\$233,333	\$0
	CR 46 - COW Limits (401) to CR 19												
IICP2	CR 46 - Interm Traffic Singals			2026	-	2026	\$2,800,000	\$0	\$2,800,000	50%	\$1,400,000	\$1,400,000	\$0
	CR 42 - CR 19 to CR 25												
IICP3	CR 42 - Roundabout	CR 42	CR 25	2032	-	2032	\$4,000,000	\$0	\$4,000,000	50%	\$2,000,000	\$2,000,000	\$0
IICP4	CR 42 - Roundabout	CR 42	Patillo	2034	-	2034	\$4,000,000	\$0	\$4,000,000	50%	\$2,000,000	\$2,000,000	\$0
	CR 19 - Jamsyl to Highway 3												
IICP5	CR 19 - Intersection at CR 46			2031	-	2031	\$14,000,000	\$0	\$14,000,000	50%	\$7,000,000	\$7,000,000	\$0
IICP6	CR 19 - Roundabout at CR 34			2032	-	2032	\$14,000,000	\$0	\$14,000,000	50%	\$7,000,000	\$7,000,000	\$0
SUBTOTAL - INTERSECTION IMPROVEMENTS - CONSTRUCTION PROGRAM: ROADWAY EXPANSION PROJECTS							\$39,500,000	\$0	\$39,500,000		\$19,866,667	\$19,633,333	\$0

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COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY

DC Study #	Project	Anticipated Timing			Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares		DC Eligible 2025-2041	Post 2041
INTERSECTION IMPROVEMENTS & CAPACITY ENHANCING - DETAILED DESIGN PROJECTS											
	CR 19 - CR 22 and CR 19 Intersection										
IICE1	CR 19 - CR 22 and CR 19 Rd Works	2025	-	2025	\$350,000	\$0	\$350,000	50%	\$175,000	\$175,000	\$0
IICE2	CR 19 - CR 22 and CR 19 Storm Water (DMAF)	2025	-	2025	\$200,000	\$0	\$200,000	50%	\$100,000	\$100,000	\$0
SUBTOTAL - INTERSECTION IMPROVEMENTS & CAPACITY ENHANCING - DETAILED DESIGN PROJECTS					\$550,000	\$0	\$550,000		\$275,000	\$275,000	\$0
INTERSECTION IMPROVEMENTS AND CAPACITY ENHANCING - CONSTRUCTION PROGRAM: ROADWAY EXPANSION											
	CR 19 - CR 22 and CR 19 Intersection										
IICECP1	CR 19 - CR 22 and CR 19 Storm Water	2025	-	2025	\$25,000,000	\$0	\$25,000,000	50%	\$12,500,000	\$12,500,000	\$0
IICECP2	CR 19 - CR 22 and CR 19 Rd Works	2025	-	2025	\$20,000,000	\$0	\$20,000,000	50%	\$10,000,000	\$10,000,000	\$0
SUBTOTAL - INTERSECTION IMPROVEMENTS AND CAPACITY ENHANCING - CONSTRUCTION PROGRAM: ROADWAY EXPANSION					\$45,000,000	\$0	\$45,000,000		\$22,500,000	\$22,500,000	\$0

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COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY

DC Study #	Project	Segment #	From	To	Municipal Jurisdiction	Unit Cost/Km	Anticipated Timing			Length (Lane KM)	Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares	DC Eligible 2025-2041	Post 2041	
ACTIVE TRANSPORTATION																	
	Bike Lane																
A1	Sandwich St n.	Amh-16	CR 16 (Alma St)	Pickering St	AMH	\$53,000	2029	-	2033	1.50	\$109,628	\$65,777	\$43,851	77%	\$33,757	\$10,094	\$0
A2	CR 42	Lake-43	CR 31	65m w. of Aimee St	LA	\$53,000	2025	-	2028	0.40	\$25,833	\$15,500	\$10,333	77%	\$7,955	\$2,379	\$0
A3	CR 42	Tec-36	City /County Jurisdictional Boundary	215m w. of CR 42 / CR 43 s. intersection	TEC	\$378,000	2029	-	2033	0.60	\$301,735	\$0	\$301,735	77%	\$232,278	\$69,457	\$0
A4	CR 42	Tec-23	215m w. of CR 42 / CR 43 s. intersection	Proposed CR 42 / CR 43 intersection	TEC	\$378,000	2029	-	2033	0.10	\$58,664	\$35,198	\$23,466	77%	\$18,064	\$5,402	\$0
A5	CR 42	Tec-24	Proposed CR 42 / CR 43 intersection	CR 19	TEC	\$378,000	2029	-	2033	2.10	\$1,084,922	\$650,953	\$433,969	77%	\$334,072	\$99,896	\$0
	Buffered Paved Shoulder																
A6	CR 10	Amh-26b	2nd Concession n.	Cypher Systems Greenway	AMH	\$250,000	2025	-	2028	8.60	\$2,907,274	\$0	\$2,907,274	77%	\$2,238,041	\$669,233	\$0
A7	CR 20	Amh-7c	Malden Rd / CR 3	N Side Rd	AMH	\$250,000	2029	-	2033	2.70	\$899,597	\$539,758	\$359,839	77%	\$277,007	\$82,832	\$0
A8	CR 10	Amh-26a	CR 20	2nd Concession n.	AMH	\$250,000	2025	-	2028	2.30	\$767,225	\$460,335	\$306,890	77%	\$236,246	\$70,644	\$0
A9	CR 10	Amh-26c	Cypher Systems Greenway	CR 11	AMH	\$250,000	2025	-	2028	1.00	\$341,687	\$205,012	\$136,675	77%	\$105,213	\$31,462	\$0
A10	CR 11	Ess-1b	CR 18	CR 18	ES	\$250,000	2034	-	2041	1.80	\$605,081	\$0	\$605,081	77%	\$465,796	\$139,285	\$0
A11	CR 20	Ess-38b	CR 23	Iler Rd	ES	\$250,000	2034	-	2041	1.90	\$650,667	\$0	\$650,667	77%	\$500,888	\$149,779	\$0
A12	CR 23	Ess-38c	CR 20	Chrysler Greenway	ES	\$250,000	2034	-	2041	0.30	\$92,312	\$0	\$92,312	77%	\$71,062	\$21,250	\$0
A13	CR 34 (Talbot Rd s.)	Ess-32	Wilson SideRd	CR 8	ES	\$250,000	2025	-	2028	2.40	\$825,363	\$495,218	\$330,145	77%	\$254,148	\$75,997	\$0
A14	CR 34	Kings-5	100m e. of Elgin St	CR 31	KI	\$250,000	2034	-	2041	1.90	\$481,446	\$0	\$481,446	77%	\$370,621	\$110,825	\$0
A15	CR 34	Kings-10	CR 45	100m e. of Elgin St	KI	\$250,000	2034	-	2041	0.50	\$153,332	\$91,999	\$61,333	77%	\$47,214	\$14,118	\$0
A16	CR 34	Leam-2	CR 31	Crest View Dr	LEA	\$250,000	2034	-	2041	0.60	\$201,808	\$0	\$201,808	77%	\$155,353	\$46,455	\$0
A17	CR 34	Leam-33	Fraser Rd	Crest View Dr	LEA	\$250,000	2034	-	2041	1.20	\$418,759	\$0	\$418,759	77%	\$322,364	\$96,395	\$0
A18	CR 33	Leam-5B	Monarch Lane	350m s. of Monarch Lane	LEA	\$250,000	2025	-	2028	0.40	\$125,164	\$75,098	\$50,066	77%	\$38,541	\$11,525	\$0
A19	CR 33	Leam-7a	Mersea Rd 2	CR 20 / Mersea Rd 1	LEA	\$250,000	2025	-	2028	1.40	\$469,063	\$281,438	\$187,625	77%	\$144,435	\$43,190	\$0
A20	CR 33	Leam-7b	CR 34	Mersea Rd 2	LEA	\$250,000	2025	-	2028	1.30	\$453,246	\$271,948	\$181,298	77%	\$139,565	\$41,734	\$0
A21	CR 33	Leam-35	CR 34	Seacliff Dr E./ Mersea Rd 1	LEA	\$250,000	2029	-	2033	2.10	\$703,253	\$421,952	\$281,301	77%	\$216,548	\$64,753	\$0
	Cycle Track																
A22	CR 20	Amh-7b	Thrasher Dr	N Side Rd	AMH	\$400,000	2029	-	2033	1.70	\$923,813	\$554,288	\$369,525	77%	\$284,463	\$85,062	\$0
A23	Talbot St e.	Leam-36	Meadow Brook Church Drway	CR 33	LEA	\$400,000	2025	-	2028	0.40	\$233,341	\$140,005	\$93,336	77%	\$71,851	\$21,485	\$0

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COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY

DC Study #	Project	Segment #	From	To	Municipal Jurisdiction	Unit Cost/Km	Anticipated Timing			Length (Lane KM)	Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares		DC Eligible 2025-2041	Post 2041
	Multi-Use Path																
A24	Alma St	Amh-6	Fryer St	Meloche Rd	AMH	\$375,000	2029	-	2033	1.30	\$660,173	\$396,104	\$264,069	77%	\$203,282	\$60,787	\$0
A25	CR 10	Amh-27	Cypher Systems Greenway	CR 11	AMH	\$375,000	2025	-	2028	1.00	\$508,669	\$305,201	\$203,468	77%	\$156,631	\$46,837	\$0
A26	CR 8	Ess-12	320m w. of Allen Ave	180m w. of Bell Ave	ES	\$375,000	2025	-	2028	0.70	\$332,506	\$199,504	\$133,002	77%	\$102,386	\$30,616	\$0
A27	CR 8	Ess-13	180m w. of Bell Ave	Bell Ave	ES	\$375,000	2025	-	2028	0.20	\$103,578	\$62,147	\$41,431	77%	\$31,894	\$9,537	\$0
A28	Maidstone Ave e.	Ess-16	Bell Ave	Talbot Rd n.	ES	\$375,000	2025	-	2028	0.20	\$111,697	\$67,018	\$44,679	77%	\$34,394	\$10,285	\$0
A29	CR 8	Ess-28	175m w. of s. Talbot Rd	485m e. of s. Talbot Rd	ES	\$375,000	2025	-	2028	0.70	\$336,305	\$201,783	\$134,522	77%	\$103,556	\$30,966	\$0
A30	CR 8	Ess-29	Pinkerton Rd	175m w. of s. Talbot Rd	ES	\$375,000	2025	-	2028	0.20	\$112,717	\$67,630	\$45,087	77%	\$34,708	\$10,379	\$0
A31	CR 27	Kings-17	CR 8	Rd 10	KI	\$375,000	2029	-	2033	2.10	\$1,078,026	\$0	\$1,078,026	77%	\$829,872	\$248,154	\$0
A32	CR 29	Kings-11	Palmer Dr	Water St	KI	\$375,000	2025	-	2028	0.70	\$341,540	\$204,924	\$136,616	77%	\$105,168	\$31,448	\$0
A33	CR 45	Kings-12	CR 20	CR 34	KI	\$375,000	2029	-	2033	1.50	\$780,178	\$468,107	\$312,071	77%	\$240,235	\$71,837	\$0
A34	CR 20	Kings-13A	Greenway	100m w. of Greenway	KI	\$375,000	2029	-	2033	0.10	\$43,526	\$26,116	\$17,410	77%	\$13,403	\$4,008	\$0
A35	Main St w.	Kings-22b	Heritage Rd	Queen St	KI	\$375,000	2034	-	2041	0.80	\$390,287	\$234,172	\$156,115	77%	\$120,178	\$35,936	\$0
A36	Main St	Kings-22d	Spruce St	Chrysler Canada Greenway	KI	\$375,000	2029	-	2033	1.20	\$612,453	\$367,472	\$244,981	77%	\$188,588	\$56,393	\$0
A37	CR 27	Kings-21	CR 34	110 metres e. of Whitewood Ave	KI	\$375,000	2029	-	2033	0.80	\$420,911	\$252,547	\$168,364	77%	\$129,608	\$38,756	\$0
A38	CR 22	Lake-16a	Maplewood Dr	30m E of W Belle River Rd	LA	\$375,000	2025	-	2028	0.50	\$261,810	\$157,086	\$104,724	77%	\$80,617	\$24,107	\$0
A39	CR 22	Lake-16b	Beechwood Dr	Maplewood Dr	LA	\$375,000	2025	-	2028	0.60	\$327,741	\$196,645	\$131,096	77%	\$100,919	\$30,177	\$0
A40	CR 22	Lake-16c	I. C. Roy Dr	Beechwood Dr	LA	\$375,000	2025	-	2028	3.80	\$1,915,157	\$1,149,094	\$766,063	77%	\$589,721	\$176,342	\$0
A41	CR 3	Las-3b	Reaume Ave	30m s. of Martin Lane	LS	\$375,000	2029	-	2033	1.30	\$654,260	\$392,556	\$261,704	77%	\$201,462	\$60,242	\$0
A42	CR 7 (Huron Church Line Rd)	Las-4	Sandwich w. Parkway	Laurier Parkway	LS	\$375,000	2034	-	2041	1.20	\$608,469	\$365,081	\$243,388	77%	\$187,362	\$56,026	\$0
A43	CR 7	Las-5	Disputed Rd	Sandwich w. Parkway	LS	\$375,000	2034	-	2041	0.50	\$260,907	\$156,544	\$104,363	77%	\$80,339	\$24,024	\$0
A44	CR 6 (Todd Lane)	Las-6	Tenth St	Huron Church Rd	LS	\$375,000	2025	-	2028	0.30	\$168,922	\$101,353	\$67,569	77%	\$52,015	\$15,554	\$0

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DC Study #	Project	Segment #	From	To	Municipal Jurisdiction	Unit Cost/Km	Anticipated Timing			Length (Lane KM)	Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares		DC Eligible 2025-2041	Post 2041
A45	Sprucewood Ave	Las-10	85m w. of Abbot St	Malden Rd	LS	\$375,000	2025	-	2028	1.40	\$713,632	\$428,179	\$285,453	77%	\$219,744	\$65,709	\$0
A46	CR 3	Las-18	Normandy St	Reaume Ave	LS	\$375,000	2025	-	2028	1.10	\$581,693	\$349,016	\$232,677	77%	\$179,117	\$53,561	\$0
A47	CR 33	Leam-5a	900m n. of Mersea Rd B	Monarch Lane	LEA	\$375,000	2025	-	2028	1.70	\$840,936	\$504,562	\$336,374	77%	\$258,943	\$77,431	\$0
A48	Bevel Line Rd	Leam-10	Seacliff Rd	CR 33 (Leam-5)	LEA	\$375,000	2025	-	2028	0.20	\$76,538	\$45,923	\$30,615	77%	\$23,568	\$7,047	\$0
A49	Oak St	Leam-13a	Fraser Rd	100m e. of Industrial Rd	LEA	\$375,000	2025	-	2028	1.20	\$619,307	\$371,584	\$247,723	77%	\$190,699	\$57,024	\$0
A50	CR 33	Leam-17a	350m s. of Monarch Lane	Mersea Rd 12	LEA	\$375,000	2025	-	2028	1.70	\$876,141	\$525,685	\$350,456	77%	\$269,784	\$80,672	\$0
A51	CR 34	Leam-18	CR 48	60m w. of Fader Ave	LEA	\$375,000	2029	-	2033	0.70	\$330,034	\$198,020	\$132,014	77%	\$101,625	\$30,389	\$0
A52	CR 48	Leam-19	100m e. of Industrial Rd	Sherk St	LEA	\$375,000	2025	-	2028	0.20	\$111,984	\$67,190	\$44,794	77%	\$34,482	\$10,311	\$0
A53	Talbot St w.	Leam-20	60m w. of Fader Ave	Rail Corridor	LEA	\$375,000	2029	-	2033	0.60	\$317,750	\$190,650	\$127,100	77%	\$97,843	\$29,257	\$0
A54	Seacliff Dr w. / e.	Leam-22a	Erie St s.	Cherry Lane	LEA	\$375,000	2025	-	2028	0.60	\$312,151	\$187,291	\$124,860	77%	\$96,118	\$28,742	\$0
A55	Seacliff Dr w. / e.	Leam-22c	CR 33	Bevel Line Rd	LEA	\$375,000	2025	-	2028	0.50	\$250,086	\$150,052	\$100,034	77%	\$77,007	\$23,027	\$0
A56	Lauzon Parkway	Tec-25	291m n. of the centreline of Hwy 401	291m s. of the centreline of Hwy 401	TEC	\$375,000	2034	-	2041	1.10	\$580,462	\$0	\$580,462	77%	\$446,844	\$133,618	\$0
A57	Lauzon Parkway / Hwy 401 & A/T Bridge	Tec-27	~291m n. of the centreline of Hwy 401	~291m s. of the centreline of Hwy 401	TEC	\$375,000	2034	-	2041	0.90	\$475,992	\$0	\$475,992	77%	\$366,422	\$109,570	\$0
A58	Lauzon Parkway	Tec-32	CR 46	Sexton Side Rd (~440m s. Hwy3)	TEC	\$375,000	2034	-	2041	2.80	\$1,423,436	\$0	\$1,423,436	77%	\$1,095,771	\$327,665	\$0
A59	CR 42	Tec-35	City / County Jurisdictional Boundary	215m w. of CR 42 / CR 43 s. intersection	TEC	\$375,000	2029	-	2033	0.60	\$299,153	\$0	\$299,153	77%	\$230,290	\$68,863	\$0
A60	Manning Rd	Tec-4a	86m s. of St Gregory's Rd	114m s. of Tecumseh Rd e.	TEC	\$375,000	2025	-	2028	0.40	\$207,272	\$124,363	\$82,909	77%	\$63,824	\$19,085	\$0
A61	Manning Rd	Tec-4b	Riverside Dr e.	86m S of St Gregory's Rd	TEC	\$375,000	2025	-	2028	1.20	\$632,490	\$379,494	\$252,996	77%	\$194,758	\$58,238	\$0
A62	CR 43 / 42 / 43	Tec-5a	Railway Crossing	CR 42	TEC	\$375,000	2029	-	2033	1.50	\$741,581	\$444,949	\$296,632	77%	\$228,350	\$68,283	\$0
A63	CR 43 / 42 / 43	Tec-5b	CR 42	450 m s. of CR 42	TEC	\$375,000	2029	-	2033	0.50	\$272,187	\$163,312	\$108,875	77%	\$83,813	\$25,062	\$0
A64	CR 42	Tec-22	200 W of Concession Rd 11	Concession Rd 11	TEC	\$375,000	2029	-	2033	0.10	\$58,198	\$34,919	\$23,279	77%	\$17,920	\$5,359	\$0
A65	n. Talbot Rd	Tec-34	O'Neil St	9th Concession Rd	TEC	\$375,000	2025	-	2028	2.00	\$1,003,685	\$602,211	\$401,474	77%	\$309,058	\$92,416	\$0

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	Paved Shoulder																
A66	CR 18	Amh-1	6th Concession s.	CR 11	AMH	\$200,000	2034	-	2041	2.50	\$663,770	\$0	\$663,770	77%	\$510,975	\$152,795	\$0
A67	CR 50	Amh-2	Collison SideRd	CR 41	AMH	\$200,000	2025	-	2028	3.60	\$967,546	\$0	\$967,546	77%	\$744,824	\$222,722	\$0
A68	CR 5	Amh-13	CR 10	260m s. of Texas Rd	AMH	\$200,000	2023	-	2028	1.60	\$424,303	\$0	\$424,303	77%	\$326,632	\$97,671	\$0
A69	CR 20	AMH-29b	Edge of Urban Area	CR 20	AMH	\$250,000	2029	-	2033	2.90	\$984,401	\$0	\$984,401	77%	\$757,799	\$226,602	\$0
A70	CR 20	Amh-29a	CR 50	Edge of Urban Area	AMH	\$200,000	2029	-	2033	0.40	\$107,240	\$64,344	\$42,896	77%	\$33,022	\$9,874	\$0
A71	CR 18	Ess-1a	CR 11	Coulter Rd	ES	\$200,000	2025	-	2028	5.90	\$1,582,314	\$0	\$1,582,314	77%	\$1,218,077	\$364,237	\$0
A72	CR 12	Ess-36	CR 15	Battem Rd	ES	\$200,000	2029	-	2033	6.10	\$1,653,088	\$0	\$1,653,088	77%	\$1,272,559	\$380,529	\$0
A73	CR 20	Ess-31	CR 20	CR 13	ES	\$200,000	2029	-	2033	6.60	\$1,772,277	\$0	\$1,772,277	77%	\$1,364,312	\$407,965	\$0
A74	Concession Rd 5	Ess-39	CR 15	Chrysler Greenway	ES	\$200,000	2025	-	2028	0.40	\$100,172	\$0	\$100,172	77%	\$77,113	\$23,059	\$0
A75	CR 11	Ess-40b	3rd Concession Rd	CR 15	ES	\$200,000	2025	-	2028	2.20	\$590,320	\$0	\$590,320	77%	\$454,433	\$135,887	\$0
A76	CR 50	Ess-7	CR 41	100m w. of Crystal Beach Rd	ES	\$200,000	2025	-	2028	0.70	\$199,740	\$119,844	\$79,896	77%	\$61,505	\$18,391	\$0
A77	County Rd 34	Ess-9	Irwin Ave	200m s. of Irwin Ave	ES	\$200,000	2025	-	2028	0.30	\$81,093	\$48,656	\$32,437	77%	\$24,970	\$7,467	\$0
A78	CR 50	Ess-11	Dahinda Dr	100m w. of Crystal Beach Rd	ES	\$200,000	2025	-	2028	4.90	\$1,331,747	\$799,048	\$532,699	77%	\$410,075	\$122,623	\$0
A79	CR 8	Ess-14	Brien Ave e.	CR 23	ES	\$200,000	2025	-	2028	0.20	\$56,124	\$33,674	\$22,450	77%	\$17,282	\$5,168	\$0
A80	Maidstone Ave e.	Ess-15	Talbot Rd n.	Brien Ave e.	ES	\$200,000	2025	-	2028	1.60	\$435,438	\$261,263	\$174,175	77%	\$134,081	\$40,094	\$0
A81	Talbot Rd s.	Ess-17	170m s. of Gossfield	Irwin Ave	ES	\$200,000	2025	-	2028	0.30	\$79,033	\$47,420	\$31,613	77%	\$24,336	\$7,277	\$0
A82	CR 11	Ess-40a	Chrysler Canada Greenway	3rd Concession Rd	ES	\$200,000	2025	-	2028	0.70	\$197,850	\$118,710	\$79,140	77%	\$60,923	\$18,217	\$0
A83	CR 34 e.	Kings-2	CR 45	CR 18	KI	\$200,000	2029	-	2033	2.30	\$632,973	\$0	\$632,973	77%	\$487,267	\$145,706	\$0
A84	CR 18	Kings-3a	CR 29	CR 31	KI	\$200,000	2025	-	2028	6.90	\$1,380,599	\$0	\$1,380,599	77%	\$1,062,795	\$317,804	\$0
A85	CR 18	Kings-3b	CR 29	CR 31	KI	\$200,000	2034	-	2041	5.40	\$1,085,337	\$0	\$1,085,337	77%	\$835,500	\$249,837	\$0
A86	CR 34	Kings-1	300m s. of Irwin Ave	Malden Rd	KI	\$200,000	2025	-	2028	0.70	\$141,698	\$0	\$141,698	77%	\$109,080	\$32,618	\$0
A87	CR 20	Kings-30	Mccain SideRd	Heritage Rd	KI	\$200,000	2025	-	2028	2.80	\$743,520	\$0	\$743,520	77%	\$572,367	\$171,153	\$0
A88	CR 50	Kings-9a	Sycamore Ave	90m S of Sycamore Ave	KI	\$200,000	2025	-	2028	0.10	\$23,297	\$13,978	\$9,319	77%	\$7,174	\$2,145	\$0
A89	CR 34 E	Kings-20	CR 27	Clark St	KI	\$200,000	2025	-	2028	0.20	\$42,133	\$25,280	\$16,853	77%	\$12,974	\$3,879	\$0

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A90	CR 2	Lake-1	CR 1	CR 37	LA	\$200,000	2025	-	2028	6.40	\$1,725,247	\$0	\$1,725,247	77%	\$1,328,108	\$397,139	\$0
A91	CR 2	Lake-2a	Clearview Dr	Gracey Side Rd	LA	\$200,000	2025	-	2028	2.60	\$707,511	\$0	\$707,511	77%	\$544,647	\$162,864	\$0
A92	Gracey Side Rd	Lake-2b	CR 2	CR 2	LA	\$200,000	2025	-	2028	0.30	\$90,522	\$0	\$90,522	77%	\$69,684	\$20,838	\$0
A93	CR 46	Lake-4	Rochester Townline Rd	Rail Corridor	LA	\$200,000	2029	-	2033	3.50	\$938,251	\$0	\$938,251	77%	\$722,272	\$215,979	\$0
A94	CR 27	Lake-6a	Hwy 401	877m n. of CR 46	LA	\$200,000	2029	-	2033	1.60	\$432,021	\$0	\$432,021	77%	\$332,573	\$99,448	\$0
A95	CR 27	Lake-6b	CR 42	Hwy 401	LA	\$200,000	2029	-	2033	4.20	\$1,123,599	\$0	\$1,123,599	77%	\$864,955	\$258,644	\$0
A96	CR 27	Lake-6c	Rail Corrdidor	CR 42	LA	\$200,000	2029	-	2033	1.20	\$317,467	\$0	\$317,467	77%	\$244,388	\$73,079	\$0
A97	CR 27	Lake-7	705m s. of S Middle Rd	CR 8	LA	\$200,000	2025	-	2028	2.40	\$657,661	\$0	\$657,661	77%	\$506,272	\$151,389	\$0
A98	CR 22	Lake-22	215m w. of Terra Lou Dr	CR 2	LA	\$200,000	2025	-	2033	0.30	\$82,099	\$0	\$82,099	77%	\$63,200	\$18,899	\$0
A99	CR 42	Lake-39a	CR 19	220m e. of CR 19	LA	\$200,000	2025	-	2028	0.60	\$150,533	\$0	\$150,533	77%	\$115,881	\$34,652	\$0
A100	CR 42	Lake-40a	50m e. of CR 1	9th Concession Rd	LA	\$200,000	2025	-	2028	0.80	\$218,744	\$0	\$218,744	77%	\$168,391	\$50,353	\$0
A101	CR 42	Lake-41a	Lakeshore Rd 105	w. Puce Rd	LA	\$200,000	2025	-	2028	2.20	\$606,473	\$0	\$606,473	77%	\$466,867	\$139,606	\$0
A102	CR 31	Lake-45	Highway 401	S Middle Rd	LA	\$200,000	2025	-	2028	4.10	\$1,118,115	\$0	\$1,118,115	77%	\$860,733	\$257,382	\$0
A103	CR 31	Lake-46	S Middle Rd	CR 8	LA	\$200,000	2025	-	2028	3.10	\$847,359	\$0	\$847,359	77%	\$652,303	\$195,056	\$0
A104	CR 25	Lake-48a	CR 42	CR 46	LA	\$200,000	2025	-	2028	6.90	\$1,864,000	\$0	\$1,864,000	77%	\$1,434,921	\$429,079	\$0
A105	CR 23	Lake-48b	CR 46	S Middle Rd	LA	\$200,000	2025	-	2028	1.30	\$359,795	\$0	\$359,795	77%	\$276,973	\$82,822	\$0
A106	CR 25	Lake-48c	CR 42	CR 46	LA	\$200,000	2025	-	2028	1.20	\$320,534	\$0	\$320,534	77%	\$246,749	\$73,785	\$0
A107	CR 2	Lake-53b	250m e. of St Clair Rd	730m w. of Hale St	LA	\$200,000	2025	-	2028	2.10	\$570,982	\$0	\$570,982	77%	\$439,546	\$131,436	\$0
A108	CR 2	Lake-9	BRdway St	Strong Rd	LA	\$200,000	2029	-	2033	1.00	\$277,722	\$166,633	\$111,089	77%	\$85,517	\$25,572	\$0
A109	CR 27	Lake-10	890m s. of Bissonnette Lane	s. Middle Rd	LA	\$200,000	2029	-	2033	2.30	\$615,026	\$369,016	\$246,010	77%	\$189,381	\$56,630	\$0
A110	CR 27	Lake-14	197m S of Stowe St	s. Middle Rd	LA	\$200,000	2025	-	2028	0.70	\$192,489	\$115,493	\$76,996	77%	\$59,272	\$17,724	\$0
A111	CR 42	Lake-15	CR 21	Patillo Rd	LA	\$200,000	2025	-	2028	2.10	\$561,079	\$336,647	\$224,432	77%	\$172,769	\$51,663	\$0
A112	CR 42	Lake-39b	220 m E of CR 19	750 m E of CR 19	LA	\$200,000	2025	-	2028	0.50	\$143,582	\$86,149	\$57,433	77%	\$44,212	\$13,221	\$0
A113	CR 42	Lake-40b	9th Concession Rd	CR 21	LA	\$200,000	2025	-	2028	0.50	\$141,538	\$84,923	\$56,615	77%	\$43,583	\$13,032	\$0
A114	CR 42	Lake-41b	w. Puce Rd	CR 25	LA	\$200,000	2025	-	2028	0.50	\$135,396	\$81,238	\$54,158	77%	\$41,692	\$12,467	\$0
A115	CR 31	Lake-42	CR 2	CR 42	LA	\$200,000	2025	-	2028	2.70	\$723,682	\$434,209	\$289,473	77%	\$222,838	\$66,635	\$0
A116	CR 31	Lake-44	CR 42	Highway 401	LA	\$200,000	2025	-	2028	4.30	\$1,150,398	\$690,239	\$460,159	77%	\$354,234	\$105,925	\$0
A117	CR 42	Lake-49	65m w. of Aimee St	e. Ruscom River Rd	LA	\$200,000	2025	-	2028	0.20	\$57,416	\$34,450	\$22,966	77%	\$17,680	\$5,287	\$0
A118	CR 2	Lake-53a	St. Clair Rd	250m e. of St Clair Rd	LA	\$200,000	2025	-	2028	0.20	\$66,947	\$40,168	\$26,779	77%	\$20,615	\$6,164	\$0
A119	CR 2	Lake-53c	730m w. of Hale St	Claireview Dr	LA	\$200,000	2025	-	2028	2.50	\$667,155	\$400,293	\$266,862	77%	\$205,432	\$61,430	\$0
A120	CR 21	Lake-21	Rail Corridor	CR 42	LA	\$200,000	2034	-	2041	0.50	\$141,730	\$85,038	\$56,692	77%	\$43,642	\$13,050	\$0

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A121	Brighton Rd	Tec-10	Rail Corridor	Old Tecumseh Rd	TEC	\$200,000	2034	-	2041	0.30	\$19,576	\$11,746	\$7,830	77%	\$6,028	\$1,803	\$0
A122	CR 22	Lake-25a	Terra Lou Dr	215m w. of Terra Lou Dr	LA	\$200,000	2029	-	2033	0.20	\$57,908	\$0	\$57,908	77%	\$44,578	\$13,330	\$0
A123	CR 22	Lake-25b	Eleventh St	Terra Lou Dr	LA	\$200,000	2029	-	2033	0.70	\$190,459	\$0	\$190,459	77%	\$146,617	\$43,842	\$0
A124	CR 7	Las-2	Broderick Rd	CR 9	LS	\$200,000	2029	-	2033	2.80	\$756,410	\$0	\$756,410	77%	\$582,290	\$174,120	\$0
A125	CR 3	Las-3a	Reaume Ave	CR 8	LS	\$200,000	2025	-	2028	3.30	\$880,054	\$0	\$880,054	77%	\$677,472	\$202,582	\$0
A126	CR 18	Leam-1	CR 31	0.6km w. of Highway 77	LEA	\$200,000	2029	-	2033	3.00	\$817,222	\$0	\$817,222	77%	\$629,103	\$188,119	\$0
A127	CR 37	Leam-37	CR 34	Mersea Rd 5	LEA	\$200,000	2034	-	2041	2.00	\$549,971	\$0	\$549,971	77%	\$423,372	\$126,599	\$0
A128	CR 33	Leam-17c	350m s. of Monarch Lane	Mersea Rd 12	LEA	\$200,000	2034	-	2041	0.80	\$217,389	\$130,433	\$86,956	77%	\$66,939	\$20,017	\$0
A129	CR 33	Leam-17d	350m s. of Monarch Lane	Mersea Rd 12	LEA	\$200,000	2034	-	2041	0.90	\$249,886	\$149,932	\$99,954	77%	\$76,946	\$23,009	\$0
A130	CR 46	Tec-1	150 e. of 9th Concession Rd	CR 19	TEC	\$200,000	2025	-	2028	4.80	\$1,287,244	\$0	\$1,287,244	77%	\$990,930	\$296,314	\$0
A131	CR 46	Tec-2a	Windsor Boundary	Concession Rd 8	TEC	\$200,000	2025	-	2028	1.40	\$385,380	\$231,228	\$154,152	77%	\$118,667	\$35,485	\$0
A132	CR 46	Tec-2b	Concession Rd 8	153 m e. of Concession Rd 9	TEC	\$200,000	2025	-	2028	1.80	\$483,449	\$290,069	\$193,380	77%	\$148,865	\$44,515	\$0
A133	Brighton Rd	Tec-10	Rail Corridor	Old Tecumseh Rd	TEC/LS	\$200,000	2025	-	2028	0.30	\$19,576	\$11,746	\$7,830	77%	\$6,028	\$1,803	\$0
	Separated Bike Lane																
A134	CR 20	Amh-7a	Texas Rd	Thrasher Dr	AMH	\$157,000	2029	-	2033	3.00	\$627,733	\$376,640	\$251,093	77%	\$193,293	\$57,800	\$0
A135	CR 20	Amh-8	Texas Rd	180m n. of Brunner Ave	AMH	\$157,000	2029	-	2033	0.80	\$175,402	\$105,241	\$70,161	77%	\$54,010	\$16,151	\$0
A136	Sandwich St n.	Amh-9	180m n. of Brunner Ave	Alma St	AMH	\$157,000	2029	-	2033	1.00	\$219,554	\$131,732	\$87,822	77%	\$67,606	\$20,216	\$0
A137	Division St s.	Kings-24d	Park St	Mill St	KI	\$157,000	2025	-	2028	1.00	\$205,592	\$123,355	\$82,237	77%	\$63,306	\$18,930	\$0
A138	CR 20	Las-7	CR 3	320m s. of Martin Lane	LS	\$157,000	2025	-	2028	2.50	\$528,927	\$0	\$528,927	77%	\$407,172	\$121,755	\$0
A139	CR 20	Las-8b	90m s. of Martin Lane	320m s. of Martin Lane	LS	\$157,000	2025	-	2028	0.30	\$67,628	\$40,577	\$27,051	77%	\$20,824	\$6,227	\$0
A140	CR 20	Las-8a	90m s. of Martin Lane	Gary Ave	LS	\$157,000	2025	-	2028	1.70	\$370,838	\$222,503	\$148,335	77%	\$114,190	\$34,146	\$0
A141	Front Rd	Las-9a	Laurier Dr	Morton Dr	LS	\$157,000	2025	-	2028	2.20	\$470,899	\$282,539	\$188,360	77%	\$145,001	\$43,359	\$0
A142	Front Rd	Las-9b	Gary Ave	Laurier Dr	LS	\$157,000	2025	-	2028	1.00	\$221,895	\$133,137	\$88,758	77%	\$68,327	\$20,431	\$0

APPENDIX C.1
TABLE 2

COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY

DC Study #	Project	Segment #	From	To	Municipal Jurisdiction	Unit Cost/Km	Anticipated Timing			Length (Lane KM)	Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares		DC Eligible 2025-2041	Post 2041
	Signed Route																
A143	8th Concession / Alma St. / 9th Concession	Amh-20	CR 8	CR 18	AMH	\$1,200	2029	-	2033	10.00	\$11,992	\$0	\$11,992	77%	\$9,232	\$2,760	\$0
A144	6th Concession s.	Amh-21	CR 18	CR 20	AMH	\$1,200	2029	-	2033	4.10	\$4,976	\$0	\$4,976	77%	\$3,831	\$1,145	\$0
A145	Creek Rd	Amh-23	Meloche Rd	CR 20	AMH	\$1,200	2025	-	2028	2.70	\$3,248	\$0	\$3,248	77%	\$2,500	\$748	\$0
A146	CR 15	Ess-21a	CR 8	CR 12	ES	\$1,200	2029	-	2033	5.90	\$9,630	\$0	\$9,630	77%	\$7,413	\$2,217	\$0
A147	CR 15	Ess-21b	CR 12	s. Malden Rd	ES	\$1,200	2029	-	2033	2.10	\$3,359	\$0	\$3,359	77%	\$2,586	\$773	\$0
A148	Talbot Rd s.	Ess-22	Maidstone Ave e.	170m s. of CR 23	ES	\$1,200	2025	-	2028	1.60	\$2,653	\$0	\$2,653	77%	\$2,042	\$611	\$0
A149	Batten Rd	Ess-34	CR 12	n. Malden Rd	ES	\$1,200	2029	-	2033	2.10	\$3,398	\$0	\$3,398	77%	\$2,616	\$782	\$0
A150	CR 29	Kings-18	CR 34	s. Talbot Rd	KI	\$1,200	2025	-	2028	3.40	\$5,520	\$0	\$5,520	77%	\$4,249	\$1,271	\$0
A151	CR 51	Kings-9b	Lake Dr	Conservation Boulevard	KI	\$11,600	2025	-	2028	0.70	\$11,006	\$0	\$11,006	77%	\$8,472	\$2,534	\$0
A152	Heritage Rd	Kings-22a	Chrysler Canada Greenway	Main St w.	KI	\$1,200	2025	-	2033	0.50	\$773	\$0	\$773	77%	\$595	\$178	\$0
A153	Main St w. / e.	Kings-22c	Queen St	Spruce St	KI	\$1,200	2029	-	2033	0.50	\$839	\$0	\$839	77%	\$646	\$193	\$0
A154	Division St n.	Kings-23	Main St	Water St	KI	\$1,200	2025	-	2028	0.30	\$411	\$0	\$411	77%	\$316	\$95	\$0
A155	Park St / Lakeview Ave	Kings-24a	Wigle Ave	Division St	KI	\$1,200	2025	-	2028	1.20	\$1,898	\$0	\$1,898	77%	\$1,461	\$437	\$0
A156	Division St	Kings-24b	Mill St	Main St w.	KI	\$1,200	2025	-	2028	0.20	\$304	\$0	\$304	77%	\$234	\$70	\$0
A157	Wigle Ave	Kings-24c	Main St e.	Lakeview Ave	KI	\$1,200	2025	-	2028	0.90	\$1,460	\$0	\$1,460	77%	\$1,124	\$336	\$0
A158	First St / Lake Dr	Lake-19	Lakeview Dr	BRdway St	LA	\$1,200	2025	-	2028	0.20	\$356	\$0	\$356	77%	\$274	\$82	\$0
A159	Renaud Line Rd	Lake-50	Shoreline Ave	CR 22	LA	\$1,200	2025	-	2028	0.20	\$394	\$0	\$394	77%	\$303	\$91	\$0

APPENDIX C.1
TABLE 2

COUNTY OF ESSEX
DEVELOPMENT-RELATED CAPITAL PROGRAM
SERVICES RELATED TO A HIGHWAY

DC Study #	Project	Segment #	From	To	Municipal Jurisdiction	Unit Cost/Km	Anticipated Timing		Length (Lane KM)	Gross Project Cost	Grants/Subsidies/ Other Recoveries	Net Project Costs	Benefit to Existing Shares		DC Eligible 2025-2041	Post 2041
A160	Lilydale Ave	Lake-51	Waterfront Trail	Puce Rd	LA	\$1,200	2025	- 2028	1.10	\$1,765	\$0	\$1,765	77%	\$1,359	\$406	\$0
A161	Puce Rd	Lake-52	Lilydale Ave	CR 22	LA	\$1,200	2025	- 2028	0.30	\$478	\$0	\$478	77%	\$368	\$110	\$0
A162	CR 33	Leam-17b	Mersea Rd 12	Mersea Rd e.	LEA	\$29,000	2025	- 2028	1.40	\$53,465	\$0	\$53,465	77%	\$41,158	\$12,307	\$0
A163	Talbot St W/E	Leam-21	Albert St	Victoria Ave	LEA	\$1,200	2025	- 2028	0.50	\$801	\$0	\$801	77%	\$617	\$184	\$0
A164	Mersea Rd 4,5,6,7,12,21	Leam-23	Highway 77	Kent CR 1	LEA	\$1,200	2025	- 2028	12.90	\$20,900	\$0	\$20,900	77%	\$16,089	\$4,811	\$0
A165	Erie St	Leam-39	Talbot Rd	Marlborough St e.	LEA	\$1,200	2025	- 2028	0.30	\$494	\$0	\$494	77%	\$380	\$114	\$0
A166	Erie St N	Leam-26	Clark St e.	Talbot St	LEA	\$1,200	2025	- 2028	0.30	\$457	\$0	\$457	77%	\$352	\$105	\$0
A167	Tecumseh Rd E	Tec-28	Lesperance Rd	230m e. of Banwell Rd	TEC	\$1,200	2025	- 2028	1.30	\$2,129	\$0	\$2,129	77%	\$1,639	\$490	\$0
A168	Concession Rd 9	Tec-29	s. Talbot Rd	Highway 8	TEC	\$1,200	2029	- 2033	1.30	\$2,129	\$0	\$2,129	77%	\$1,639	\$490	\$0
A169	Lesperance Rd	Tec-30	Tecumseh Rd e.	McNorton St	TEC	\$1,200	2025	- 2028	3.40	\$5,486	\$0	\$5,486	77%	\$4,223	\$1,263	\$0
A170	Dillon Dr	Tec-31	Windsor Border	Lesperance Rd	TEC	\$1,200	2025	- 2028	0.40	\$711	\$0	\$711	77%	\$547	\$164	\$0
A171	8th Concession Rd	Tec-33	CR 46	Windsor Boundary	TEC	\$1,200	2025	- 2028	0.60	\$970	\$0	\$970	77%	\$747	\$223	\$0
SUBTOTAL - ACTIVE TRANSPORTATION										\$74,823,833	\$21,140,552	\$53,683,281		\$41,325,782	\$12,357,498	\$0
TOTAL - SERVICES RELATED TO A HIGHWAY										\$715,053,833	\$21,140,552	\$693,913,281		\$354,424,116	\$290,705,831	\$48,783,333

Residential Development Charge Calculation		
Residential Share of 2025-2041 DC Eligible Cos	68%	\$197,187,905
Growth in Population in New Units to 2041		55,588
Unadjusted Development Charge per Capita		\$3,547
Non-Residential Development Charge Calculation		
Non-Residential Share of 2025-2041 DC Eligible	32%	\$93,517,927
Growth in Square Metres to 2041		2,088,600
Unadjusted Development Charge per Square Metre		\$44.78

2025-2041 Net Funding Envelope	\$296,152,434
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Appendix D

Cost of Growth Analysis

Appendix D: Cost of Growth Analysis

A. Asset Management Plan

The DCA requires that municipalities complete an Asset Management Plan before passing a development charges by-law. A key purpose of the Asset Management Plan, as required by the legislation, is to demonstrate that all assets funded under the development charges by-law are financially sustainable over their full life cycle.

i. Asset Types

A summary of future County-owned assets and estimate useful life assumptions for eligible development charge services are considered as part of the study are outlined in Table 1 and Table 2. Although all capital assets are considered in the study and have been identified, not all assets necessitate future replacement or ongoing maintenance activities:

- Some of the works identified may represent one-time expenditures and may be temporary in nature. Therefore, the assets would not be required to be replaced, and no ongoing operation and maintenance costs exist. Such assets are identified as “not a long-term asset” in the tables.
- Some projects do not relate to the emplacement of a tangible capital asset—for example, the acquisition of land or the undertaking of development-related studies. These projects/costs do not necessarily require future replacement or ongoing maintenance. Such projects are identified as “not infrastructure” in the tables.

It is 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 (e.g.

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 County Assets Considered County-Wide for All Services

Service	Average Estimated Useful Life
Library Services	
Materials	10 years
Ambulance Services	
Land	N/A
Studies	N/A
Buildings	50 years
Vehicles and Equipment	10 years
Long-Term Care	
Land	N/A
Buildings	50 years
Waste Diversion	
Buildings	50 years
Vehicles	10 years
Development-Related Studies	
Studies	N/A
Services Related to a Highway	
Roads	50 years
Active Transportation	40 years
Bridges & Culverts	60 years
Roundabouts	40 years
Streetlighting, Signage, etc.	40 years

ii. Annual Provision

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

Based on information obtained from the County's current Asset Management Plans (AMP) and County staff regarding useful life assumptions, and the capital cost of acquiring and/or emplacing each asset, a provision for infrastructure replacement has been calculated for both the general and engineered services. 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 forms the required annual capital provision. In calculating the annual provisions, assumptions are made to account for inflation (2.0%) and interest (3.5%).

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 BTE allocations. However, for reference, the annual replacement provisions associated with the non-development charge funded costs, including costs related to the BTE and post-period benefit, have also been calculated.

Table 2 provides the calculated annual asset management contribution for both the gross capital expenditures and the share related to the 2025 – 2034 development charge recoverable portion. The year 2035 has been included to calculate the annual contribution for the 2025 – 2034 period as the expenditures in 2034 will not trigger asset management contributions until 2035 for general services and 2042 for engineered services. As shown in

Table 2, by 2035, the County will need to fund an additional \$540,600 for general services per annum in order to properly fund the full life cycle costs of the new assets related to the services supported under the development charges by-law. By 2042, the County will need to fund an additional \$6.4 million per annum for engineered services in order to properly fund the full life cycle costs of the new assets for Services Related to a Highway.

APPENDIX D
TABLE 2
COUNTY OF ESSEX
ANNUAL ASSET MANAGEMENT PROVISION

General Services	2025-2034 Capital Program		Calculated Annual Provision by 2035	
	DC Eligible	Non-DC Eligible	DC Eligible	Non-DC Eligible
Library Services	\$1,510,740	\$0	\$151,671	\$0
Ambulance Services	\$5,523,046	\$59,516,910	\$220,271	\$1,808,737
Long-Term Care	\$4,039,189	\$2,680,586	\$78,152	\$0
Waste Diversion	\$2,359,085	\$46,840,515	\$90,532	\$1,019,397
Development-Related Studies	\$340,000	\$100,000	\$0	\$0
Total	\$13,772,060	\$109,138,011	\$540,626	\$2,828,133

Engineered Services	2025-2041 Capital Program		Calculated Annual Provision by 2042	
	DC Eligible	Non-DC Eligible	DC Eligible	Non-DC Eligible
Services Related To A Highway	\$290,705,831	\$424,348,002	\$6,441,731	\$10,789,066
Total	\$290,705,831	\$424,348,002	\$6,441,731	\$10,789,066

iii. Financial Sustainability of the Program

a) Future Revenue Growth

The calculated annual funding provision should be considered within the context of the County's projected growth. The County is projected to increase by 12,600 households by 2034 and 21,600 new households by 2041. In addition, the County will also add 17,200 new employees by 2034 and 28,500 new employees by 2041. The increase in employees will result in approximately 1.2 million square metres of additional non-residential building space by 2034 and 2.1 million square metres by 2041.

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

The analysis in Table 2 also assumes the replacement of all assets would occur at the end of their useful life. The County may have different service level standards that would impact the estimated annual allocation. The County's proposed level of service would be defined through future asset management plans.

B. Long-Term Capital and Operating Impact Analysis

The long-term capital and operating impact analysis has been informed based on the County's 2023 Financial Information Return (FIR) and the infrastructure identified in the development charge capital programs that are anticipated to be open and operational by the end of the planning period.

As shown in Table 3, the County's net operating costs are estimated to increase by \$19.6 million by 2034 and \$1.5 million by 2041 for property tax

supported services. Increases in net operating costs will be experienced as new facilities are opened. Operating and maintenance costs will also increase as additions to the County's road network are made.

Table 4 summarizes the components of the development-related capital forecast that will require funding from non-DC sources. In total, \$406.1 million will need to be funded from non-DC sources to cover replacement and BTE shares of costs. This includes \$51.7 million over the 2025 – 2034 planning period for general services and \$354.4 million over the 2025 – 2041 planning period for engineered services. In addition, \$49.4 million in interim DC financing related to post-period shares of projects may be required, including \$48.8 million for Services Related to a Highway.

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.

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 County can afford to invest and operate the identified general services infrastructure over the 10-year and engineered services over the 16-year planning period.

In addition, as part of the annual budget update the County also contributes to asset replacement reserves and spends on yearly asset replacement needs as needed.

Through this annual exercise, staff identify the required funding and propose mitigating measures in order to ensure there are sufficient funds in reserves over the long term. Life-cycle funding methodologies are also reviewed in order to ensure that the County is continuing to implement financially sustainable practices for funding the eventual replacement of assets.

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

APPENDIX D
TABLE 3

COUNTY OF ESSEX
COST OF GROWTH ANALYSIS
ESTIMATED NET OPERATING COST OF THE DEVELOPMENT RELATED CAPITAL PROGRAM
(in constant 2025 dollars)

General Services	Cost Driver (\$)	Unit Measure	Quantity	Additional Operating Costs at 2034	Source & Commentary
Library Services		No additional operating costs			N/A
Ambulance Services					
<i>New staff and vehicles (total)</i>				\$ 15,292,577	Based on Essex-Windsor EMS Master Plan Update staff report, p. 101
<i>New staff and vehicles (development-related share)</i>				\$ 2,597,222	Based on BTE shares in Appendix B
Long-Term Care	\$ 180	per sq.ft. of new space	6,000	\$ 1,080,000	Based on 2023 FIR & 2025 DC Study
Waste Diversion	\$ 0.10	per \$1.00 value of asset	6,719,775	\$ 671,978	Based on 2023 FIR & 2025 DC Study
Development-Related Studies		No additional operating costs			N/A
Total				\$ 19,641,777	

Engineered Services	Cost Driver (\$)	Unit Measure	Quantity	Additional Operating Costs at 2041	Source & Commentary
Services Related To A Highway	\$68	per household	21,613	\$ 1,466,366	Based on 2023 FIR & 2025 DC Study
Total				\$ 1,466,366	

APPENDIX D
TABLE 4
COUNTY OF ESSEX
LONG-TERM CAPITAL FINANCING FROM NON-DC SOURCES
in (\$000)

General Services	Development-Related Capital Program (2025-2034)			
	Net Municipal Cost	Replacement & Benefit to Existing	Post-2034 Benefit	Total DC Eligible Costs for Recovery
Library Services	\$ 1,510.7	\$ -	\$ -	\$ 1,510.7
Ambulance Services	\$ 32,520.0	\$ 26,996.9	\$ -	\$ 5,523.0
Long-Term Care	\$ 6,719.8	\$ 2,680.6	\$ -	\$ 4,039.2
Waste Diversion	\$ 24,849.6	\$ 21,915.0	\$ 575.5	\$ 2,359.1
Development-Related Studies	\$ 440.0	\$ 100.0	\$ -	\$ 340.0
TOTAL - GENERAL SERVICES (2025-2034)	\$ 66,040.1	\$ 51,692.5	\$ 575.5	\$ 13,772.1

Engineered Services	Development-Related Capital Program (2025-2041)			
	Net Municipal Cost	Replacement & Benefit to Existing	Post-2041 Benefit	Total DC Eligible Costs for Recovery
Services Related To A Highway	\$ 693,913.3	\$ 354,424.1	\$ 48,783.3	\$ 290,705.8
TOTAL - ENGINEERED SERVICES (2025-2041)	\$ 693,913.3	\$ 354,424.1	\$ 48,783.3	\$ 290,705.8

TOTAL GENERAL & ENGINEERED SERVICES	\$ 759,953.37	\$ 406,116.63	\$ 49,358.85	\$ 304,477.89
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