
REGION OF DURHAM

**REGIONAL DEVELOPMENT CHARGE
BACKGROUND STUDY**

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AND

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

1.0 PURPOSE OF THIS BACKGROUND STUDY

- 1.1 This Background Study has been prepared pursuant to Section 10 of the *Development Charges Act, 1997* (DCA). Together with the proposed by-law, these documents are being made available to the public, as required by Section 12 of the DCA, more than two weeks prior to the public meeting of Council, which is to be held April 3, 2013.
- 1.2 The development charges calculated represent those which can be recovered under the DCA, based on the Region's capital spending plans and other assumptions which are responsive to the requirements of the DCA. After receiving input at the public meeting of Council on April 3, 2013 and other consultation sessions, the completed study and by-law will be received by Council for its meeting on April 24th, 2013. At that time, Council will decide as to the magnitude of the charges it wishes to establish for residential, commercial, industrial and institutional development. Property tax, user rate or other funding will be required to finance any potential development charge-recoverable capital costs if those costs are not covered in the development charges being recommended.
- 1.3 Other decisions are also required to finalize the development charge policies and the by-law, including indexing, phasing, applicability to the redevelopment of land, exemptions, and the schedule of charges by type of land use and by area.
- 1.4 The purpose of the public meeting and consultation activity is to obtain input on all of these matters.
- 1.5 The purpose of this Background Study is to propose the replacement of By-law No. 44-2008 "Regional Municipality of Durham Development Charges By-law, 2008" with the proposed by-law herein.
- 1.6 It should be noted that the Regional Official Plan (ROP) is based on targets set out in Schedule 3 of the Provincial Growth Plan, Places to Grow and Regional Official Plan Amendment No. 128 (ROPA 128). Specifically, the Region is required to plan for a total of 873,905 people and 327,950 jobs by 2028.
- 1.7 This Study and the proposed by-law do not include GO Transit servicing requirements. The Region imposes a development charge for GO Transit purposes pursuant to By-law 86-2001, commencing December 5, 2001. This by-law has been extended by Provincial Legislation/Regulation four times, most recently to December 31st, 2013.
- 1.8 This Study and the proposed by-law do not include Regional transit servicing requirements. The Region imposed a development charge for Durham Region transit purposes pursuant to By-law 47-2012, effective January 1, 2013. This transit Development Charge By-law establishes development charges rates

(Region-wide including Seaton), subject to annual indexing in accordance with the Statistics Canada Construction Price Index.

2.0 Region-wide vs Area-specific Development Charges

- 2.1 Most municipalities in Ontario have established uniform, municipal-wide development charges. This has been Durham's approach since 1991, with the exception of its approach to development in the areas generally known as Carruthers Creek.
- 2.2 The Region is implementing a new area-specific charges for water and sanitary sewerage for the Seaton Community. Through a separate background study and by-law, development in Seaton will be subject to the area-specific development charges for water and sanitary sewerage.
- 2.3 The rationale for separate area-specific charges for water supply and sanitary sewerage in Carruthers Creek reflects long-standing historical financing arrangements, which are explained in the separate development charges background studies for these services.

3.0 THE 2013 DEVELOPMENT CHARGE CALCULATION AND PROPOSED RATES

- 3.1 An annualized cash flow method was undertaken to calculate the development charges. This method considers project costs adjusted for inflation, development charge credits, outstanding (unfunded) capital costs, available development charge reserve fund balances, historic oversizing costs and financing costs associated with expenditure timing and anticipated Development Charge revenues. This also includes indexing over the planning horizon. In addition, the cash flow analysis provides for interest earnings on positive reserve fund balances and interest expenses on negative balances. Details of the development charge calculation and the cash flow methodology for Regional capital costs are included in Appendices E, F, G and H.
- 3.2 The results of the calculation, in terms of the full charges involved, are summarized in Table ES-1 and ES-2 based on the costing and related assumptions contained in Appendices A to H. Further, Tables ES-3 and ES-4 compare the proposed rates to the current development charge rates as of June 1, 2013.

Table ES-1
Proposed Residential Development Charges
For June 1, 2013
(per unit)

	Single and Semi Detached \$	Medium Density Multiples \$	2 Bedroom Apartments and Larger \$	1 Bedroom Apartments and Smaller \$
Water Supply ⁽¹⁾⁽²⁾	7,246	5,822	4,209	2,743
Sanitary Sewerage ⁽¹⁾⁽²⁾	8,365	6,721	4,859	3,167
Regional Roads	7,908	6,354	4,594	2,994
Regional Police Services	603	485	350	228
Long Term Care	29	23	17	11
Emergency Medical Services	138	111	80	52
Health and Social Services	93	75	54	35
Development Related Studies	<u>24</u>	<u>19</u>	<u>14</u>	<u>9</u>
Total – Proposed By-Law ⁽³⁾	<u>24,406</u>	<u>19,610</u>	<u>14,177</u>	<u>9,239</u>
Notes: (1) These charges are payable only in areas where the services are, or will be, available in an area designated for the particular service in the Region's Official Plan. (2) Not applicable to the Seaton area as defined in Appendix A of the Background Study and Schedule F of the proposed by-law. (3) Additional Regional development charges exist for GO Transit and Regional Transit under By-law 86-2001 and By-law 47-2012 respectively.				

Table ES-2
Proposed Non-Residential Development Charges
For June 1, 2013
(\$ per square foot of Gross Floor Area)

	Commercial	Industrial		Institutional
		As of June 1, 2013	As of July 1, 2016 ⁽³⁾	
Water Supply ^{(1) (2)}	1.87	1.10	2.21	0.70
Sanitary Sewerage ^{(1) (2)}	5.22	2.32	4.64	1.45
Regional Roads	5.56	1.67	3.33	5.87
Total⁽⁴⁾	<u>12.65</u>	<u>5.09</u>	<u>10.18</u>	<u>8.02</u>
Notes: (1) These charges are payable only in areas where the services are, or will be, available in an area designated for the particular service in the Region's Official Plan. (2) Not applicable to the Seaton Area as defined in Appendix A of the Background Study and Schedule F of the proposed by-law. (3) Proposed rates after recommended phase-in without allowance for indexing. (4) Additional Regional development charges exist for Regional Transit under By-law No. 47-2012.				

Table ES-3
Changes in Residential Development Charges
(per Single Detached/Semi Unit)

Service Category	Current Rate as of January 1, 2013	New Proposed Rate for June 1, 2013	\$ Increase/ Decrease
Water Supply ⁽¹⁾⁽²⁾	\$6,326	\$7,246	\$920
Sanitary Sewerage ⁽¹⁾⁽²⁾	6,118	8,365	2,247
Regional Roads	6,678	7,908	1,230
Regional Police Services	477	603	126
Long Term Care	35	29	(6)
Emergency Medical Services	117	138	21
Health and Social Services	-	93	93
Development Related Studies	27	24	(3)
Sub - Total	\$ 19,778	\$24,406	\$4,628
GO Transit ⁽³⁾	647	647	-
Regional Transit ⁽³⁾	515	515	-
Total	<u>\$ 20,940</u>	<u>\$25,568</u>	<u>\$4,628</u>
Notes: (1) These charges are payable only in areas where the services are, or will be, available in an area designated for the particular service in the Region's Official Plan. (2) Not applicable to the Seaton Area as defined in Appendix A of the Background Study and Schedule F of the proposed by-law. (3) These charges are imposed under separate Development Charge by-laws but are shown in this table for the purposes of presenting a total quantum of Development Charges.			

Table ES-4
Changes in Non-Residential Development Charges
(\$ per square foot of Gross Floor Area)

	Rate as of January 1, 2013			Proposed Rate June 1, 2013			\$ Increase/Decrease (per sq.ft)		
	<u>Commercial</u>	<u>Industrial</u>	<u>Institutional</u>	<u>Commercial</u>	<u>Industrial</u> ⁽²⁾	<u>Institutional</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Institutional</u>
Water Supply ⁽³⁾⁽⁴⁾	2.43	0.93	0.23	1.87	1.10	0.70	(0.56)	0.17	0.47
Sanitary Sewerage ⁽³⁾⁽⁴⁾	4.97	1.97	1.22	5.22	2.32	1.45	0.25	0.35	0.23
Regional Roads	11.46	1.76	3.75	5.56	1.67	5.87	(5.90)	(0.09)	2.12
Subtotal	18.86	4.66	5.20	12.65	5.09	8.02	(6.21)	0.43	2.82
Regional Transit ⁽¹⁾	0.31	0.31	0.31	0.31	0.31	0.31	-	-	-
	<u>19.17</u>	<u>4.97</u>	<u>5.51</u>	<u>12.96</u>	<u>5.40</u>	<u>8.33</u>	<u>(6.21)</u>	<u>0.43</u>	<u>2.82</u>

Notes:

- (1) These charges are imposed under a separate Development Charge By-law 47-2012.
- (2) The proposed rate at June 1, 2013 is 50% of the fully calculated industrial development charge (\$10.49 after recommended phase-in to be realized July 1, 2016 without allowance for indexing).
- (3) These charges are payable only in areas where the services are, or will be, available in an area designated for the particular service in the Region's Official Plan.
- (4) Not applicable to the Seaton Area as defined in Appendix A of the Background Study and Schedule F of the proposed by-law.

4.0 PROPOSED PHASE-IN FOR DEVELOPMENT CHARGES

4.1 Residential Development Charge

- 4.1.1 It is recommended that the full calculated residential development charge rates as outlined in Table ES-1 be implemented on June 1, 2013, including a new service category for Health and Social Services.

4.2 Commercial Development Charge

- 4.2.1 It is recommended that the full calculated commercial development charge for water supply, sanitary sewerage and Regional roads (\$12.65 / sq. ft.) be implemented on June 1, 2013.

4.3 Institutional Development Charge

- 4.3.1 It is recommended that the full calculated institutional development charge for water supply, sanitary sewerage and Regional roads (\$8.02/sq.ft.) be implemented on June 1, 2013.

4.4 Industrial Development Charge

- 4.4.1 It is recommended that the Region gradually introduce full cost recovery Regional industrial development charge as outlined in Table ES-5.
- 4.4.2 In order to permit the market to adapt to the higher charges, it is recommended that the 100% calculated industrial development charge rate be implemented in four phases. At implementation of the Development Charge By-law on June 1, 2013 the industrial charge is recommended to remain at 50% of the new full calculated rate. On July 1, 2014 the industrial charge would be 65% of the full calculated rate; on July 1, 2015 the industrial charge would be 80% of the full calculated rate; and, the final phase-in, on July 1, 2016 the industrial charge will be 100% of the calculated rate as outlined in Table ES-5 below. Indexing will be applied annually.

Table ES-5
Proposed Industrial Development Charges Phase-in
(\$ per square foot of Gross Floor Area)

Service Component	Current Rate ⁽¹⁾	June 1, 2013	July 1, 2014 ⁽²⁾	July 1, 2015 ⁽²⁾	July 1, 2016 ⁽²⁾
Water Supply ^{(3) (4)}	0.93	1.10	1.44	1.77	2.21
Sanitary Sewerage ^{(3) (4)}	1.97	2.32	3.02	3.71	4.64
Regional Roads	1.76	1.67	2.16	2.66	3.33
Total	<u>4.66</u>	<u>5.09</u>	<u>6.62</u>	<u>8.14</u>	<u>10.18</u>

Notes:

(1) Current rate is 50% of the calculated rate from the 2008 Development Charge Study, adjusted by indexing.

(2) These charges are proposed to be further adjusted for indexing on an annual basis.

(3) These charges are payable only in areas where the services are, or will be, available in an area designated for the particular service in the Region's Official Plan.

(4) Not applicable to the Seaton Area as defined in Appendix A of the Background Study and Schedule F of the proposed by-law.

5.0 ANTICIPATED DEVELOPMENT

- 5.1 The DCA, 1997 requires that the "anticipated amount, type and location of development, for which development charges can be imposed, must be estimated".
- 5.2 Accordingly, staff have prepared estimates of residential and non-residential development by population, dwelling unit type (e.g. single detached, apartment), employment and floor space by sector (e.g. commercial) for each service. Anticipated development forecasts reflect the growth forecasts as approved in ROPA 128. The forecasts assume growth will occur in the manner contemplated in the ROP, with development concentrated primarily within the designated Urban Areas. A small allowance for rural growth was also included.
- 5.3 The development anticipated over the fifteen year time period of July 1, 2013 – June 30, 2028 inclusive, including the Seaton area (which is detailed in Appendix A), is highlighted in Table ES-6:

TABLE ES-6
REGION OF DURHAM
GROWTH FORECASTS
2013-2028

TYPE OF GROWTH	AMOUNT	REFERENCE
Population Growth	232,280 Persons	Table A-3
Household Unit Growth	102,250 Households	Table A-3
Employment Growth	111,115 Employees	Table A-14
Additional Non-Residential Floor Space	7,172,870 Square Metres	Table A-14

6.0 SUMMARY OF THE CAPITAL COSTS AND DEDUCTIONS

- 6.1 As part of the analysis required by the DCA, 1997, the capital forecasts providing the eligible growth related capital costs required for the anticipated development have been prepared for each service and are detailed in Appendices E to H.
- 6.2 The capital costs eligible for Development Charge recoveries for General Services (Long Term Care, Development Related Studies, Regional Police, Health and Social Services, and Emergency Medical Services) are considered over the ten year planning period from 2013 to 2022. These are outlined in Table ES-7.
- 6.3 The capital costs eligible for Development Charge recoveries for Water Supply, Sanitary Sewerage and Regional Roads are considered over the 15-year period between 2013 and 2027. These are also outlined in Table ES-7.

Table ES-7
Summary of Capital Costs for all Eligible Programs
(\$2013, \$millions)

Services	Gross Cost \$	Less:					Net Growth		
		Ineligible (Level of Service) \$	Benefit to Existing Development \$	Subsidy Developer Contribution/ Other ⁽¹⁾ \$	Post Period Capacity \$	10% Statutory Deduction \$	Total \$	Res \$	Non-res \$
Hard Services (2013-2028):									
Water Supply	958.4	-	148.1	62.1	55.2	-	693.0	572.7	120.3
Sanitary Sewer	1,135.4	-	120.0	44.7	202.8	-	767.9	511.6	256.3
Regional Roads	1,743.6	-	640.3	8.0	90.4	-	1,004.9	683.1	321.8
Sub-total	3837.4		908.4	114.8	348.4		2,465.8	1,767.4	698.4
General Services (2013-2023):									
Regional Police Services	81.8	58.3	-	-	-	0.0	23.5	14.8	8.7
Emergency Medical Services	13.4	4.3	0.3	-	-	0.9	7.9	6.7	1.2
Long Term Care Health & Social Services	1.8	0.0	0.0	-	-	0.0	1.8	1.8	0.0
Development Related Studies	5.1	-	0.2	-	-	0.5	4.4	4.4	0.0
	2.0	0.0	-	-	-	0.1	1.9	1.2	0.7
Sub-total	104.1	62.6	0.5	-	-	1.5	39.5	28.9	10.6
Total⁽²⁾	<u>3,941.5</u>	<u>62.6</u>	<u>908.9</u>	<u>114.8</u>	<u>348.4</u>	<u>1.5</u>	<u>2,505.3</u>	<u>1,796.3</u>	<u>709.0</u>

Notes:

- (1) Includes Capital Cost Allocations to Seaton and Federal Lands in Pickering.
(2) May not add due to rounding.

- 6.4 The Region intends to implement the projects set out in this Study through its usual practice of preparing financial plans through annual water supply, sanitary sewerage and roads servicing and financing studies during the annual business planning and budget process. Accordingly, the timing of some of the projects which are to be development charge funded may be modified in subsequent business plans and budgets.

7.0 Development Charge Recovery of the Proposed Capital Programs

- 7.1 Table ES-7 on the previous page summarizes the total capital program considered, and the statutorily required deductions which form part of the calculation of the development charges. This leaves the remaining portion of the growth-related capital that is eligible for DC recovery. Under this Background Study, the total capital program of \$3.9 billion includes \$2.5 billion which is eligible for development charge recovery over the 10 and 15 year planning periods.

8.0 Proposed Changes to Development Charges Policies

- 8.1 The rules for exemptions, relief and adjustments for the charge are detailed in Chapter 6 and are included in the proposed by-law in Appendix K. The key proposed changes are:
- New Development Charge Service for Health and Social Services (see Appendix H)
 - Collection Policy Option for Residential Subdivisions: 50% of Development Charges for hard services at the signing of the subdivision agreement with the remaining payable at first year anniversary of the subdivision agreement (see 6.11.1)
 - 'Single and Semi-detached' category for residential development charges
 - Introduction of an Intensification Servicing Policy (see Appendix D)
 - Fully calculated industrial rate to be phased-in over three years (see 6.4.2)
 - Elimination of the large office development discount (see 6.4.3)
 - Treatment of all non-residential non-profit development as institutional (see 6.5.1)
 - Treatment of the first 7,000 square feet of accessory commercial buildings or structures as industrial (see 6.5.2)
 - Exemption of public hospitals (see 6.3.1)
 - Exemption of parking structures and gas canopies (see 6.3), and
 - Elimination of the Region Share allowance for non-residential sub-trunk extension (see 6.6.2)

A summary of all policy change recommendations is included in Table ES-8 which follows.

Table ES-8
Summary of Policy Change Recommendations

Policy	Current Treatment	Proposed Treatment
Designated Regional Services	Water Supply, Sanitary Sewerage, Regional Roads, Regional Police, Long Term Care, Emergency Medical Services and Development Related Studies.	Continue as prior by-law with the addition of Health and Social Services.
Collection Policy Option: Residential Subdivision Agreement Anniversary Milestone Payments	Development Charges for water supply, sanitary sewerage and Regional roads are payable 50% on the first anniversary of the signing of the agreement, and 50% on the second anniversary secured by a letter of credit in the amount of 55% of the Development Charges payable.	Development Charges for water supply, sanitary sewerage and Regional roads to be payable 50% at the time of signing the subdivision agreement and 50% at the first anniversary of the subdivision agreement signing secured with a letter of credit in the amount of 55% of the Development Charges payable.
Retirement Homes	2011 Amendment to By-law 44-2008 treats Retirement Homes as residential development at the 1 Bedroom or smaller rate.	No change is recommended.
Residential Unit Categories	1) Single detached, 2) Low density multiples which includes townhouses, semi-detached units and plexes; 3) 2-bedroom apartments or greater; and, 4) 1-bedroom and smaller apartments.	Modify to: 1) Single detached and semi-detached units; 2) Medium density multiples which includes townhouses and plexes; 3) 2-bedroom apartments or greater; and, 4) 1-bedroom and smaller apartments.
Intensification Policy	No specific policy.	A policy to fund specified site specific sanitary sewerage requirements related to residential intensification development within built-up areas.
Calculated Industrial Rate	Discounts the fully calculated industrial rate by 50%	Phase-in the fully calculated industrial rate by 2016. See section 6.4.2.5.
Large Office Discount	Office developments over 25,000 square feet receive a 75% commercial Development Charge discount.	Discontinue this discount.
Commercial Accessory Buildings or Structures	No specific policy. Charged at principal use, commercial rate.	Apply industrial rate to the first 7,000 square feet.
Non-residential, Non-profit development	Currently non-residential, non-profit development can be treated in various ways.	Charge any kind of non-residential, non-profit development the institutional Development Charge rate.

Discretionary Exemptions	Under the current Regional Development Charge by-law discretionary exemptions are afforded to: Places of worship, and agricultural development.	Continue current exemptions and exempt public hospitals, parking structures, gas canopies and roof-like structures.
	Garden Suites and Mobile homes, if removed within 10 years	No change is recommended.
Region Share for Non-residential development	2008 Background study recommended an extension of the Region Share policy to include cost sharing for the over sizing of sub-trunks to service non-residential lands.	Discontinue this allowance due to lack of uptake and enhanced forecast growth of employment lands.
Redevelopment Credit	Within 10 years of demolition.	10 years from the date the first demolition permit was issued.
	Not to exceed the amount the Development Charges otherwise payable with respect to the redevelopment.	A redevelopment credit is not issued if the development that is demolished would be exempt from Development Charges under the current by-law.

The following policies are unchanged:

8.2 Provisions in the Development Charges Act that specifically exempt schools and municipal facilities from paying development charges as well as industrial expansions (up to 50% of the existing floor space) and specified one and two unit residential intensification.

8.3 The Region Share Policy for Residential Development (Appendix B) and the Regional Well Interference Policy (Appendix C).

9.0 **INDEXING**

9.1 Under the DCA, 1997, the Region "...may also provide for the indexing of development charges based on the prescribed index" (s.s.5(1)10). Section 6, paragraph 2 requires that a development charge by-law must set out an express statement indicating how, if at all, the rules provide for the indexing of development charges.

9.2 The "prescribed index" is defined in O.Reg. 82/98 s.7 as, "The Statistics Quarterly, Construction Price Statistics, catalogue number 62-007 as the index for the purposes of paragraph of subsection 5(1) of the Act."

9.3 It is recommended that the Regional Residential and Non-residential Development Charge rates continue to be indexed annually as of July 1st of each year, in accordance with the change in the prescribed index for the most recently

available annual period, ending March 31. The first indexing will occur on July 1, 2014 so as to preserve the purchasing power of the charges.

10.0 CONSULTATION AND SUBSEQUENT COUNCIL APPROVAL

10.1 At this stage in the process, the Background Study and proposed Development Charge By-law are being provided for information purposes, as part of the consultation process. At such time as that process is complete and final Development Charge recommendations are made to Council, approval will be sought for:

- the 2013 Development Charge By-law; and
- the Background Study, including the growth projections, the development-related capital program, the Development Charge calculation and associated material, subject to any Addendum which may be produced prior to by-law adoption.

10.2 Consultations with the building and development industry have been scheduled for late March. The Boards of Trade and Chambers of Commerce and other business associations have been notified of the pending Background Study and offered contact information for any further discussion. In addition, local Area Municipal staff were briefed on the draft development, capital and policy provisions in early March.

10.3 As summarized below, the public meeting of Regional Council is expected to be held April 3, 2013 as required by Section 12 of the DCA. Council is expected to consider approval of the by-law on April 24, 2013.

Process		Date
1.	Outreach to the development community, business associations and Area Municipal Staff	Late February-March 2013
2.	Meeting Notice ad placed in newspaper(s)	By March 12, 2013
3.	Proposed By-law and Background Study Available to public	March 19, 2013
4.	Statutory Public Meeting	April 3, 2013
5.	By-law Revisions (if necessary)	Mid April, 2013
6.	Council considers adoption of background study and passage of by-law.	April 24, 2013
7.	Newspaper notice given of by-law amendment passage	By 20 days after passage
8.	Last day for by-law appeal	40 days after passage
9.	Region makes the pamphlet available	by 60 days after in force date

10.4 The proposed by-law will come into force on June 1, 2013.

1.0 INTRODUCTION

1.0 INTRODUCTION

1.1 Background

- 1.1.1 The Region of Durham is updating its Development Charge Background Study and By-law pending the expiry of By-law No. 44-2008 on July 1, 2013.
- 1.1.2 The purpose of the Development Charge Background Study is to establish the components of the Region's future capital expenditures which are attributable to new development and to calculate the development charge required to fund them. Growth-related capital expenditures represent the capital costs necessary to provide the increase in need for municipal services attributable to the anticipated development over the planning period (in this case the next 10-15 years), net of several statutory expenditure exclusions, for which development charges cannot be imposed. These development-related capital components are distinguished from replacement, upgrade or "state of good repair" items which are almost exclusively the funding responsibility of existing development, population and employment through property taxes and user rates.
- 1.1.3 Development-related expenditures are established herein in terms of the provisions of the *Development Charges Act, 1997* (DCA), which define a general form of calculation methodology which must be followed. Once that has been done, Council is then in a position to determine whether it wishes to impose some or all of the calculated development charges, on some or all of the development uses and geographic areas of the Region.
- 1.1.4 Thus, this Development Charge Background Study calculates the cost of new infrastructure required by the Region as a result of the increase in need for services to accommodate new development. The resultant charge is expressed as a dollar amount per residential unit by type and per square foot of non-residential gross floor area (GFA) by type.
- 1.1.5 This report has been prepared, in the first instance, to meet the statutory requirements applicable to the Region's Development Charge Background Study, as summarized below. In so doing, it addresses the requirement for "rules" (Chapter 6) as part of the proposed by-law, which has been included as part of this Background Study (Appendix K).

In addition, the study is designed to set out sufficient background on the legislation (Section 1.3), current Region DC policy (Chapter 2) and the basis for the calculations underlying the proposed charge, to make the exercise understandable to those who are involved.

Finally, it addresses post-adoption implementation requirements (Chapter 7) which are critical to the successful application of the new policy.

1.1.6 The Chapters in the report are further supported by Appendices containing the data required to explain and substantiate the calculation of the charge.

1.1.7 Figure 1-1 outlines the proposed schedule to be followed with respect to the development charge by-law adoption process.

1.1.8 The DCA requires that a development charge background study must be completed by a municipal council before passing a development charge by-law. The mandatory inclusions in such a study are set out in s.10 of the DCA and in s.8 of O.Reg. 82/98, as follows:

- a) the estimates under paragraph 1 of subsection 5(1) of the anticipated amount, type and location of development; [addressed in Chapter 3 of this report]
- b) the calculations under paragraphs 2 to 8 of subsection 5(1) for each service to which the development charge by-law would relate; [addressed in Chapters 4 and 5 of this report]
- c) an examination, for each service to which the development charge by-law would relate, of the long term capital and operating costs for capital infrastructure required for the service; [addressed in Appendix I of this report]
- d) the following for each service to which the development charge relates:
 - 1. The total of the estimated capital costs relating to the service.
 - 2. The allocation of the costs referred to in paragraph 1 between costs that would benefit new development and costs that would benefit existing development.
 - 3. The total of the estimated capital costs relating to the service that will be incurred during the term of the proposed development charge by-law.

4. The allocation of the costs referred to in paragraph 3 between costs that would benefit new development and costs that would benefit existing development.
5. The estimated and actual value of credits that are being carried forward relating to the service. (O.Reg. 82/98 s.8) [addressed in Chapter 6 of this report]

FIGURE 1-1
SCHEDULE OF KEY DEVELOPMENT CHARGE PROCESS DATES
FOR THE REGION OF DURHAM

Process		Date
1.	Outreach to the development community, business associations and staff from local area municipalities.	Late February-March 2013
2.	Meeting Notice ad placed in newspaper(s)	By March 12, 2013
3.	Proposed By-law and Background Study Available to public	March 19, 2013
4.	Statutory Public Meeting	April 3, 2013
5.	By-law Revisions (if necessary)	Mid April, 2013
6.	Council considers adoption of background study and passage of by-law.	April 24, 2013
7.	Newspaper notice given of by-law amendment passage	By 20 days after passage
8.	Last day for by-law appeal	40 days after passage
9.	Region makes the pamphlet available	by 60 days after in force date

1.2 Conformity With Applicable Legislation and Regional Policy

- 1.2.1 The Regional Development Charge By-law has been prepared in conformity with the provisions of the Development Charges Act, 1997, The Provincial Policy Statement, 2005 and the Durham Regional Official Plan.

1.3 Development Charges Act Requirements

1.3.1 Introduction

1. Development charges (DCs) are payments made by new development in Durham (and other municipalities) normally as part of the building permit approval and/or the subdivision/severance agreement process. These payments are made by all such new development, unless specifically exempt by the *Development Charges Act* or the Region's by-law.
2. These payments are made for the initial capital requirements of providing services to new development anticipated over the next decade or beyond in the case of "hard services" such as water supply, sanitary sewerage and Regional Roads. All Region-funded services are eligible for DC funding, except those specifically excluded via the *Development Charges Act*.
3. "Capital" is defined in the DCA to include the municipal cost to acquire, lease, construct or improve land or facilities, including rolling stock (7+ year life), furniture and equipment (other than computer equipment), library materials, as well as related study and financing costs.
4. The Region of Durham has imposed DCs throughout its amalgamated history and currently does so via By-law 44-2008, passed June 18, 2008, with a maximum lifetime of five years from its July 1, 2008 in force date (subsequently amended by By-law 40-2009, effective June 24, 2009).
5. This by-law provides for DC payments which vary with the amount and type of new development, as detailed in Chapter 3.
6. These charges are indexed for inflation as of July 1 each year, based on the prescribed Statistics Canada Quarterly *Construction Price Statistics* and By-law 44-2008.
7. The monies collected under By-law 44-2008 are maintained in seven separate reserve funds, one for each of the services involved. Most of the collections are for Water Supply, Sanitary Sewerage and Regional Roads. Small development charge components are also collected for Emergency Medical Services, Long Term Care, Regional Police and Development-Related Studies.
8. Each development charge paid is allocated, as a statutory requirement, to those reserve funds. It is also required that the monies only be expended for the purposes for which the DC was calculated.

9. In calculating the charge, it is necessary to:
 - establish a new development forecast for population and housing, and for employees and floor area;
 - determine and cost the additional services that such new development will require and ensure that the program has Council approval;
 - make the cost deductions required by the Act with respect to service level, benefit to existing development, excess capacity, grants and contributions, the statutory 10% deduction for soft services, etc.;
 - calculate development charges by type of use and document this in a background study and by-law along with associated policies; and,
 - take the study and proposed by-law through a public process, seeking Council approval thereof.
10. Development charges represent a significant capital funding source for many services and serve to provide a significant portion of funding for designated projects. The current by-law updating process is designed to identify full DC coverage for Regional services.

1.3.2 Development Charge Prerequisites

As per the *Development Charges Act, 1997*, the Region can impose development charges for:

1. A Regional service and funding responsibility other than:
 - cultural or entertainment facilities such as museums, theatres and art galleries;
 - tourism facilities, including convention centres;
 - parkland acquisition;
 - hospital provision;
 - waste management services; and
 - Municipal/local board general administration headquarters.
2. A service which will experience an increase in capital needs at least partially attributable to residential and/or non-residential growth in Durham 2013-2028.
3. A service for which Regional Council has or will (as part of the DC process) approve(d) a capital forecast, which includes capital capacity expansion projects as per paragraph 2.
4. Such capital capacity expansion projects are not fully funded by grants, subsidies or developer contributions.

5. Such capital projects involve the acquisition, lease, construction or improvement of land, buildings, including furniture and equipment, studies and borrowing costs (as well as library materials).
6. Such capital projects do not include computer equipment and rolling stock with an estimated useful life of less than 7 years.
7. Capital costs for "soft services" don't relate to a time beyond the end of the 10-year planning period.
8. Such capital costs don't serve to increase the future (per capita/employee) level of service beyond the historical average attained in Durham over the 2003-2012 period.

1.3.3 The following tabular text (Figure 1-2) sets out the method that must be used to determine development charges. The underlining has been added to the quotations for clarification/emphasis and is not part of the statute or regulation quoted on the left side of the page. The DC calculation process is also summarized schematically in Figure 1-3 which follows.

**Figure 1-2
SUMMARY OF STATUTORY DEVELOPMENT CHARGE
CALCULATION REQUIREMENTS**

s.s.5(1) of the DCA (and associated Regulations) Para- graph	Commentary
1. "The anticipated amount, type and location of development, <u>for which development charges can be imposed</u> , must be estimated."	Virtually all municipalities forecast <u>all</u> development (including DC-ineligible) in the first instance. That development is used as the denominator in the DC calculation with the <u>full</u> eligible cost of servicing all such development used as the numerator. That way, growth-related servicing costs are equitably spread over <u>all</u> benefiting development, the municipality does not recover DCs from exempt development and this would ensure that the requirements of s.s.5(6)3 have been met. That is, capital costs have not been offloaded from one type of development to another.
2. "The increase in the need for service <u>attributable to the anticipated development</u> must be estimated for each service to which the development charge by-law would relate."	This step involves estimating the additional service requirement, individually for water, wastewater, roads, etc., that is needed by the development increment in paragraph 1. The anticipated development in para. 1 must correspond to the service attribution in para. 2. This involves removing statutorily ineligible development (i.e. municipalities, schools, specified industrial expansions, specified residential intensification and other statutorily exempt public uses) and the servicing cost thereof. However, this would be very difficult to accomplish, because numerous unspecified geographic locations are involved for such development, which makes the servicing cost difficult to identify. As a result, the total cost/total development approach outlined above is used and has the same effect on the DC quantum.

s.s.5(1) of the DCA (and associated Regulations)	Commentary
3. "The estimate under paragraph 2 may include an increase in need only if the <u>council of the municipality has indicated that it intends to ensure that such an increase in need will be met.</u>"¹ O.Reg. 82/98 s.3. "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 <u>if the increase in service forms part of an official plan, capital forecast or similar expression of the intention of the council</u> and the plan, forecast or similar expression of the intention of the council has been approved by the council."	The capital forecast underpinning the DC calculation must be formally approved by Council in one of the ways indicated in the Regulation.
4. "The estimate under paragraph 2 must not include an increase that would result in <u>the level of service exceeding the average level of that service provided in the municipality</u> over the 10-year period immediately preceding the preparation of the background study required under section 10.¹ The estimate also must not include an increase in the need for service that relates to a time after the 10-year period immediately following the preparation of the background study unless the service is set out in subsection (5)." O.Reg. 82/98 s.4(1) "For the purposes of paragraph 4 of subsection 5(1) of the Act, both the quantity and quality of a service shall be taken into account in determining the level of service and the average level of service."	This provision creates a "service level cap" equal to the cost of providing service to the "anticipated development," consistent with the 10-year historical average level of service. In accordance with s.s.5(1)4, services such as Emergency Medical Services, are restricted to a maximum 10-year planning horizon. s.s.5(5) lists water, wastewater, storm water, road, police and fire services. They are not subject to a 10 year planning period cap. Services other than those excluded in s.s.2(4), may be defined by the municipality and, in some cases, grouped into "service categories" for purposes of reserve funds and credits (as per s.7). Two "level of service" considerations must be taken into account in satisfying compliance re the 10-year historical average level of service cap. These considerations involve "quantity" (e.g. floor space/capita) and "quality" (e.g. cost per sq ft of floor space).

¹ The Act notes that the provisions may be further governed by regulations.

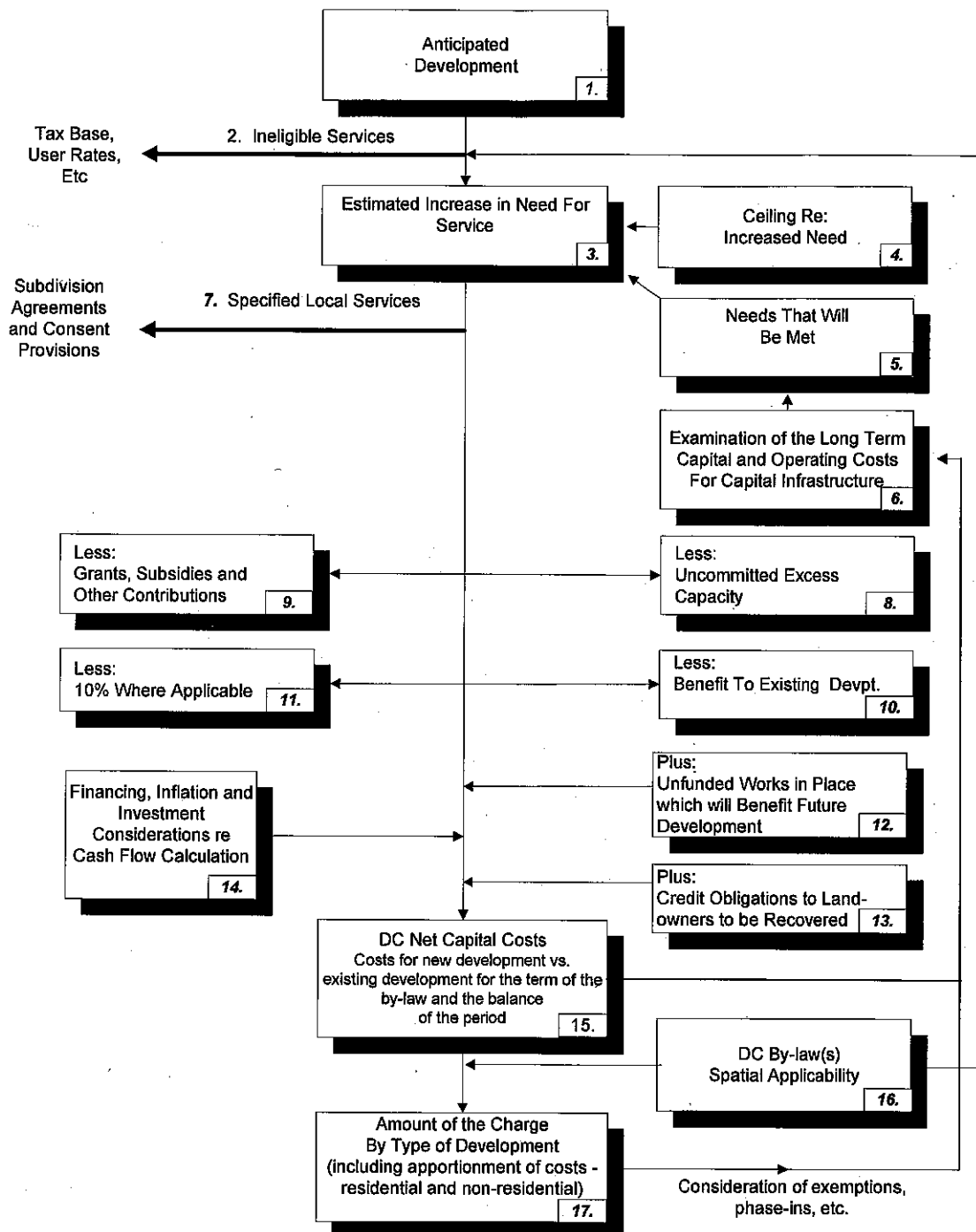
s.s.5(1) of the DCA (and associated Regulations)	Commentary
s.s.4(2) addresses the service level in an excluded geographic area where a service is not provided. s.s.4(4) limits the service level in part of a municipality to the level otherwise applicable to the full municipality. s.s.4(3) modifies the service level cap where a higher level is required by another Act.	Potentially affects area-specific charges.
O.Reg. 206/04 amended s.4 of O.Reg. 82/98 by adding the following subsection: "(1.1) In determining the <u>quality</u> of a service under subsection (1), the <u>replacement cost</u> of municipal capital works, exclusive of any allowance for depreciation, shall be the amount used. (underlining added)	The Regulation clarifies that the quality level of service measure is to be based on the undepreciated replacement cost of municipal capital works.
5. "The increase in the need for service attributable to the anticipated development must be <u>reduced</u> by the part of that increase that can be met <u>using the municipality's excess capacity, other than</u> excess capacity that the council of the municipality has indicated an intention would be paid for by new development."¹ O.Reg. 82/98 s.5. "For the purposes of paragraph 5 of subsection 5(1) of the Act, excess capacity is uncommitted excess capacity unless, either before or at the time the excess capacity was created, the <u>council of the municipality expressed a clear intention that the excess capacity would be paid for by development charges or other similar charges.</u>"	"Uncommitted excess capacity" is available capacity that obviates (part of) the need for new projects. It is different than "Post Period Capacity," which is <u>not</u> needed by development during the planning period and is provided for the use of subsequent, i.e. post-2021 development, which can be required to fund it through future DCs. The Regulation explains the circumstances under which (part of) the cost of "committed excess capacity," (i.e. infrastructure in the ground from prior DC by-laws or otherwise), can be recovered via future DC's.

s.s.5(1) of the DCA (and associated Regulations)	Commentary
6. "The increase in the need for service must be reduced by the extent to which an increase in service to meet the increased need would <u>benefit existing development</u>."¹ Note: no regulatory clarification has been provided.	Existing development benefits from: • the repair or unexpanded replacement of existing assets; • an increase in average service level or existing operational efficiency; • the elimination of a chronic servicing problem not created by growth; • providing services where none previously existed (e.g. water service).
7. "The <u>capital costs</u> necessary to provide the increased services must be estimated. The capital costs <u>must be reduced by the reductions set out in subsection (2)</u>. What is included as a capital cost is set out in subsection (3)."¹ O.Reg. 82/98 s. 6 indicates that: Unless the person making the grant, subsidy, etc., was specific as to how it is to be applied, the contribution is to be shared between growth and non-growth project components in proportion to the way in which the costs were allocated in s.s.5(1)6. s.s.5(3) defines capital costs to include: • the acquisition or lease of (an interest in) land; • construction, improvement, acquisition or lease (capital component only) costs for buildings/structures/facilities; • 7+ year useful life rolling stock; • FFE, other than computer equipment; • library materials; • studies re above; • DC Background Studies; and • interest on related borrowings.	s.s.5(2) refers to capital grants, subsidies and other contributions made to a municipality or that <u>Council anticipates will be made in respect of the capital costs</u>. These costs exclude "local services" related to a plan of subdivision or a consent approval, to be installed or paid for by the owner (s.s.2(5)). Includes debt payments related to previously constructed growth-related works.
8. "The capital cost must be reduced by 10 per cent. This paragraph does not apply to services set out in subsection (5)."	For example, the 10% reduction <u>does</u> apply to: • Emergency Medical Services • Long Term Care; • Studies The purpose of this reduction is undefined, beyond the Province's expressed wish in 1997 to moderate development charge quantum. The exclusion of various services under s.s.2(4) serves a similar purpose. (i.e. Cultural/entertainment facilities, including museums, theatres and art galleries; tourism facilities, including convention centres; parkland

s.s.5(1) of the DCA (and associated Regulations)	Commentary
	acquisition; public hospitals, waste management services; and general administration headquarters for municipalities/local boards).
9. "Rules <u>must be</u> developed to determine if a development charge is payable in any particular case and to determine the amount of the charge, subject to the limitations set out in subsection (6)." s.s.5(6): "The rules developed under paragraph 9 of subsection (1) to determine if a development charge is payable in any particular case and to determine <u>the amount of the charge are subject to the following restrictions:</u> 1. The rules must be such that the total of the development charges that would be imposed upon the anticipated development is less than or equal to the capital costs determined under paragraphs 2 to 8 of subsection (1) <u>for all the services to which the development charge by-law relates.</u> 2. If the rules expressly identify a type of development <u>they must not provide for the type of development to pay development charges that exceed the capital costs, determined under paragraphs 2 to 8 of subsection (1),</u> that arise from the increase in the need for services attributable to the type of development. However, it is <u>not necessary that the amount of the development charge for a particular development be limited to the increase in capital costs, if any, that are attributable to that</u>	These are mandatory DC by-law inclusions as to how the charge is to be applied to development types and circumstances. These are three over-riding tests to be met by the DC by-law. A municipality cannot collect more than the calculated cost for each service (if the amount of development and resultant revenue outpaces the forecast, then address via a reserve fund deduction in the DC calculation in the next round or other appropriate means). A municipality cannot offload the cost of servicing one type of development onto another type. e.g. Industrial servicing costs cannot be transferred to residential development and single detached unit servicing costs cannot be transferred to apartments. It is not necessary that the <u>average</u> municipal-wide per unit servicing costs funded by the DC reflect the needs of any <u>particular</u> development project.

s.s.5(1) of the DCA (and associated Regulations)	Commentary
<u>particular development.</u> 3. If the development charge by-law will exempt a type of development, phase in a development charge, or otherwise provide for a type of development to have a lower development charge than is allowed, <u>the rules</u> for determining development charges <u>may not provide for any resulting shortfall to be made up through higher development charges for other development.</u>"	Provides further clarification on the inability of the by-law to offload cost recovery from one type of development to another, in this case from exempt or discounted development to non-exempt development.
10. "The rules <u>may provide</u> for full or partial exemptions for types of development and for the phasing in of development charges. The rules <u>may also provide</u> for the indexing of development charges based on the prescribed index."	Optional by-law inclusions such as authority to set rules on discretionary exemptions, phasing in of DCs and indexing of DCs.

Figure 1-3
The Process of Calculating A Development Charge Under the DCA, 1997



2.0 CURRENT REGION OF DURHAM POLICY

2.0 CURRENT REGION OF DURHAM POLICY

2.1 Introduction

This chapter summarizes the Region's current development charge policy set out in its Region-wide development charge by-law.

2.2 Summary of By-law 44-2008

- 2.2.1 Regional Council passed by By-law 44-2008 on June 18, 2008. This by-law imposed development charges for seven services against four types of residential development (single, low density multiples, 2 bedroom + apartments and one bedroom or smaller apartments) and three non-residential uses (commercial, institutional and industrial). The non-residential charges were phased in over three time periods (beginning July 1 2008, beginning July 1, 2009 and beginning July 1, 2010).
- 2.2.2 The by-law established a full recovery rate for commercial development and introduced a separate rate for institutional and industrial uses. The institutional rate was charged at the full calculated rate, and industrial was set at half of the calculated rate.
- 2.2.3 The initial charge, the fully phased-in charges effective July 1, 2008 and the current charge, as of January 1, 2013, are shown on Tables 2-1, 2-2 and 2-3.
- 2.2.4 Residential and non-residential development charges were to have been indexed annually on July 1 of each year based on the changes in the Statistics Canada Quarterly, Construction Price Statistics, Catalogue Number 62-007 (s.24). However, in both 2009 and 2010 the Region amended the by-law to waive the annual indexing for each respective year.
- 2.2.5 This by-law applies to all lands in Durham except for the Seaton lands (for water and sewerage services only), subject to a number of exemptions both statutory and voluntary. The statutory exemptions are standard and relate to residential intensification, industrial expansion and defined institutional uses.

The voluntary exemptions established by the Region include:

- a) agricultural uses and farm buildings;
- b) places of worship; and
- c) garden suites and mobile homes if removed within ten years (eligible for DC refund).

Table 2-1
Region of Durham Residential Development Charges
Per Single Detached Unit

	January 1, 2013 Rate \$/Single Detached Unit
Water Supply ⁽¹⁾⁽²⁾	\$6,326
Sanitary Sewerage ⁽¹⁾⁽²⁾	6,118
Regional Roads	6,678
Regional Police Services	477
Long Term Care	35
Emergency Medical Services	117
Development Related Studies	<u>27</u>
Sub - Total	\$19,778
GO Transit ⁽³⁾	647
Regional Transit ⁽³⁾	<u>515</u>
Total	<u>\$20,940</u>
Notes: (1) These charges are only payable in areas where the services are, or will be, available in an area designated for the particular service in the Region's Official Plan. (2) Not applicable to the Seaton Area as defined in Appendix A of the Background Study and schedule F of the proposed by-law. (3) Additional Regional development charges exist for GO Transit and Regional Transit under By-law #86-2001 and By-law #47-2012 respectively.	

Table 2-2
Region of Durham Residential Development Charges
By Unit Type

<u>Service Category</u>	<u>July 1 2008⁽¹⁾</u> \$	<u>June 2011 Amendment⁽¹⁾</u> \$	<u>January 1 2013⁽²⁾</u> \$
Single Detached	18,486	19,502	20,940
Low Density Multiple	15,149	15,967	17,130
2 Bedroom Apt and Larger	10,808	11,400	12,239
1 Bedroom Apt and Smaller	10,790	7,163	7,693
Notes: (1) Includes Regional development charges for GO Transit and Regional Transit under By-law 86-2001 and 67-2007 respectively. (2) Includes Regional development charges for GO Transit and Regional Transit under By-law 86-2001 and 47-2012 respectively.			

Table 2-3
Region of Durham Non - Residential Development Charges
\$ per square foot of Gross Floor Area

INDUSTRIAL			
<u>Service Category</u>	<u>July 1 2008⁽³⁾</u>	<u>June 1, 2011 Amendment</u>	<u>Jan. 1 2013</u>
Water Supply ⁽¹⁾⁽²⁾	-	\$0.66	\$0.93
Sanitary Sewerage ⁽¹⁾⁽²⁾	-	1.39	1.97
Regional Roads	-	1.23	1.76
Regional Transit	0.23 ⁽⁴⁾	0.23 ⁽⁴⁾	0.31 ⁽⁵⁾
Total	<u>\$0.23</u>	<u>\$3.51</u>	<u>\$4.97</u>
COMMERCIAL			
<u>Service Category</u>	<u>July 1 2008</u>	<u>June 1, 2011 Amendment</u>	<u>Jan. 1 2013</u>
Water Supply ⁽¹⁾⁽²⁾	\$1.13	\$1.70	\$2.43
Sanitary Sewerage ⁽¹⁾⁽²⁾	2.04	3.49	4.97
Regional Roads	5.37	8.06	11.46
Regional Transit	0.23 ⁽⁴⁾	0.23 ⁽⁴⁾	0.31 ⁽⁵⁾
Total	<u>\$8.77</u>	<u>\$13.48</u>	<u>\$19.17</u>
INSTITUTIONAL:			
<u>Service Category</u>	<u>July 1 2008</u>	<u>June 1, 2011 Amendment</u>	<u>Jan. 1 2013</u>
Water Supply ⁽¹⁾⁽²⁾	\$0.11	\$0.17	\$0.23
Sanitary Sewerage ⁽¹⁾⁽²⁾	0.51	0.86	1.22
Regional Roads	1.76	2.63	3.75
Regional Transit	0.23 ⁽⁴⁾	0.23 ⁽⁴⁾	0.31 ⁽⁵⁾
Total	<u>\$2.61</u>	<u>\$3.89</u>	<u>\$5.51</u>
Notes:			
(1) These charges are only payable in areas where the services are, or will be, available in an area designated for the particular service in the Region's Official Plan.			
(2) Not applicable to the Seaton Area as defined in Appendix A of the Background Study and Schedule F of the proposed by-law.			
(3) Industrial development charges introduced July 1, 2009 pursuant to By-law 44-2008.			
(4) Additional Regional Transit development charges established under By-law 67-2007.			
(5) Additional Regional Transit development charges established under By-law 47-2012.			

2.2.6 Development charges are payable at the time of building permit issuance with two exceptions. The first exception applies to the water supply, sanitary sewerage and Regional roads DC components which are payable immediately upon the parties entering into a subdivision agreement based on the proposed number and type of dwelling units in the plan. This exception does not apply to high density or condominium block within a plan. The by-law provides that an

owner, who is required to pay the water supply, sanitary sewerage and Regional roads charges at the time of subdivision agreement, may enter into an agreement with the Region to pay 50% of the applicable charge on the first anniversary of the execution of the subdivision agreement, and the remaining 50% on the second anniversary (s. 20 (3)).

The other exception applies in instances where, other than described above, the Region and landowner enter into an agreement specifying a different payment schedule (s.20(5)).

2.2.7 s.18 of the by-law sets out the Region's development charge policy with respect to redevelopment. Where a demolition permit has been or will be issued within ten years prior to the date of payment of development charges or converted from one principal use to another, the DC's otherwise payable will be reduced as follows:

- a) in the case of residential building or the residential portion of a mixed use building, by the number and type of dwelling uses to be demolished or converted times the applicable charge;
- b) in the case of a non-residential building or the non-residential portion of a mixed use building, by the gross floor area to be demolished or converted times the applicable charge;

2.2.8 This by-law was amended four times over the course of the five-year period it was in effect. Amendments were made through By-law 40-2009 on June 24, 2009 and By-law 30-2010 for the purpose of waiving indexing and delaying the phase-in of Regional development charges as imposed under By-law 44-2008 for a period of one year. By-law 44-2008 was further amended by By-law 33-2011 on May 18, 2011 to adjust the development charge component for sanitary sewerage as a result of a major increase in the capital forecast. The fourth amendment, By-law 64-2011 on November 23, 2011, reclassified Retirement Residences from a commercial use to a residential use imposed under By-law 44-2008.

2.3 Summary of Other Regional Development Charge By-laws

In addition to By-law 44-2008, the Region also imposes Development Charges under four other by-laws:

- By-law 46-2008 – Area specific development charges for water supply works for the Carruthers Creek Development Area;
- By-law 45-2008 – Area specific development charges for sanitary sewerage services for the Carruthers Creek Development Area;
- By-law 86-2001 – Region-wide residential development charge for GO Transit Services;
- By-law 47-2012 – Region-wide development charges for Regional Transit Services.

It is not intended that these by-laws be amended or repealed as part of this Background Study. Separate DC Background Studies for the water supply and sanitary sewerage area specific development charges for the Carruthers Creek Development Area and Seaton are being submitted concurrently with this Background Study.

3.0 DURHAM'S DEVELOPMENT FORECAST 2013-2018

3.0 DURHAM'S DEVELOPMENT FORECAST 2013-2028

3.1 Requirements of the Act

Subsection 5(1) of the DCA sets out the method that must be used to determine development charges. The first step states that:

"The anticipated amount, type and location of development, for which development charges can be imposed, must be estimated."

Steps 2 and 5 go on to refer to "the increase in need for service attributable to the anticipated development ...". Thus, the estimate of anticipated development is an important starting point to the DC calculation process.

The requirement of the Act is for a development forecast, which refers to residential, commercial, industrial and institutional development. Such development generates increased service needs, via its occupancy and use, which is measured in terms of households, population, employment and visitors (tourists, customers, patrons and suppliers). This chapter therefore addresses both the anticipated increase in development and the users thereof. It covers all forms of development, whether or not they are included in the schedule of development charges, in order to avoid transferring the servicing cost responsibility of exempt development to non-exempt development.

The Act requires that the amount, type and location of development be estimated. "Timing" is not referenced, other than indirectly, in section 8 para. 3 of O.Reg. 82/98, where capital costs to be incurred during the term of the proposed development charge by-law, must be set out. The development forecast period was established as mid-2013 to mid-2028.

Also, s.s.5(1)4 of the Act restricts the estimate of the increase in the need for services other than roads, water supply, sanitary sewerage, storm water drainage and control, police and fire protection, to a maximum of 10 years following the preparation of the background study. Therefore, the development charge for all services other than water supply, sanitary sewerage and Regional roads, in this background study was calculated based on a ten year planning period. The sanitary sewerage, water supply and Regional roads capital planning period was established as calendar 2013-2027.

3.2 Summary of the Development Anticipated 2013-2028

3.2.1 Appendix A provides the growth forecast and its basis in detail. This chapter provides a summary thereof, as follows:

**Table 3-1
Anticipated Residential Development Growth**

	Mid-year 2013-2023 # of units			Mid-year 2013-2028 # of units		
	Seaton	Balance of Region Without Seaton	Regional Total	Seaton	Balance of Region without Seaton	Regional Total
Total Dwelling Unit Growth	13,385	49,510	62,900	18,600	83,650	102,250
Single and Semi Detached	5,855	27,065	32,920	7,925	40,475	48,400
Medium Density Multiple	5,745	10,265	16,010	7,810	19,135	26,945
B & 1 BR Apartment	625	4,265	4,890	1,005	8,415	9,415
2 BR+ Apartment	1,160	7,920	9,080	1,860	15,625	17,490
Total Population Growth	40,885	102,710	143,595	55,530	176,750	232,280

Source: Table A3 & Table A5

3.2.2 Residential development is expected to be approximately 4,375 units in 2013, 5,335 in 2014 and 6,295 units per year for 2015, 2016 and 2017. The unit forecast is expected to remain above 6,800 units per year for the remainder of the forecast period, increasing to approximately 7,800 units per year toward the end of the forecast period (See Figure A-2). This increase relates to Seaton and other anticipated planning approvals.

3.2.3 Based on Census tabulations, the average occupancy of new housing units in Durham during the first fifteen years of existence is expected to average 3.46 persons per unit for single and semi-detached dwellings, 2.78 for attached/multiples and 1.31-2.01 for small and large apartment units, respectively (See Table A-10).

3.2.4 When the increase in housing units over the two planning periods is converted to standard (single detached) equivalent (SDE) units, the following totals result:

Table 3-2
Anticipated SDE Unit Increase

Purpose	Mid-year 2013-2023 # of SDE units			Mid-year 2013-2028 # of SDE units		
	Seaton	Balance of Region without Seaton	Regional Total	Seaton	Balance of Region without Seaton	Regional Total
Roads and General	11,380	41,530	52,910	15,660	68,115	83,775
Water and Sewer	11,380	40,950	52,330	15,665	67,255	82,920

Source: Table A-11

3.2.5 Employment growth in the Region is anticipated as follows:

Table 3-3
Anticipated Employment Growth
(excluding primary & work at home)

Category	Mid-Year 2013-2023 # of Jobs			Mid-Year 2013-2028 # of Jobs		
	Seaton	Balance of Region without Seaton	Regional Total	Seaton	Balance of Region without Seaton	Regional Total
Industrial	10,890	34,520	45,410	14,765	42,940	57,705
Commercial	5,300	19,480	24,780	7,260	25,715	32,975
Institutional	2,070	7,050	9,120	3,015	9,680	12,695
Total	18,260	61,050	79,310	25,040	78,335	103,375

Source: Table A-14

3.2.6 Non-residential floor area (in m²) in the Region is expected to increase as follows:

Table 3-4
Anticipated Non-residential Floor Space Increase (m²)

Category	2013-2023 m ²			2013-2028 m ²		
	Seaton	Balance of Region without Seaton	Regional Total	Seaton	Balance of Region without Seaton	Regional Total
Industrial	794,895	3,203,710	3,998,605	1,077,920	3,962,785	5,040,705
Commercial	190,725	936,035	1,126,760	261,250	1,235,090	1,496,340
Institutional	103,400	353,665	457,065	150,700	485,120	635,820
Total	1,089,020	4,493,410	5,582,430	1,489,870	5,682,995	7,172,865

Source: Table A-14

3.2.7 The growth in non-residential floor space in the Region is forecast to occur at a gradually increasing annual rate, as follows:

- 2013-2018 – 570,972m²/year
- 2018-2023 – 545,551m²/year
- 2023-2028 – 318,087m²/year

Source: Table A-18

4.0 THE RESULTANT INCREASE IN THE NEED FOR SERVICE

4.0 THE RESULTANT INCREASE IN THE NEED FOR SERVICE

4.1 Introduction

This chapter addresses the requirements of s.s.5(1) of the DCA, 1997 with respect to the establishment of the need for service which underpins the development charge calculation, in accordance with the broad requirements set out in section 1.3.

4.2 Services Involved

- 4.2.1 Table 4-1 lists the full range of service categories which are municipally provided. A number of these services are defined in s.s.2(4) of the DCA, 1997 as being ineligible for inclusion in development charges. These are shown as "ineligible" on Table 4-1. Local roads, water, sanitary sewerage services are covered separately under subdivision agreements and related means (as are other local services). Services which are potentially eligible for inclusion in the Regional development charge are indicated with a "✓".

4.3 The Increase in the Need for Service

- 4.3.1 The development charge calculation commences with an estimate of "the increase in the need for service attributable to the anticipated development," for each service to be covered by the by-law. There must be some form of link or attribution between the anticipated development and the estimated increase in the need for service. While the need could conceivably be expressed generally in terms of units of capacity, s.s.5(1)3, which requires that Municipal Council indicate that it intends to ensure that such an increase in need will be met, suggests that a project-specific expression of need would be most appropriate.
- 4.3.2 Some of the need for services generated by additional development consists of local services related to a plan of subdivision, a consent, site plan or other form of development approval. As such, it will be provided as a condition of such development approvals, rather than as part of the development charge program.

TABLE 4-1
CATEGORIES OF MUNICIPAL SERVICES
TO BE ADDRESSED AS PART OF THE CALCULATION

CATEGORIES OF MUNICIPAL SERVICES	ELIGIBILITY FOR INCLUSION IN THE DC CALCULATION (T=Upper Tier)	SERVICE COMPONENTS	MAXIMUM POTENTIAL DC RECOVERY %
1. Services Related to a Highway	✓/Lower Tier Dev. Agreements Lower Tier ✓/Lower Tier Lower Tier/Dev. Agreements	1.1 Arterial roads 1.2 Collector roads 1.3 Local roads 1.4 Traffic signals 1.5 Sidewalks and streetlights	100 100 0 100 0-100
2. Other Transportation Services	✓ ✓ Lower Tier Lower Tier ✓ ✓ n/a n/a	2.1 Transit vehicles 2.2 Other transit infrastructure 2.3 Municipal parking spaces - indoor 2.4 Municipal parking spaces - outdoor 2.5 Works Yards 2.6 Rolling stock ¹ 2.7 Ferries 2.8 Airport facilities	90 90 90 90 100 100 90 90
3. Storm Water Drainage and Control Services	Lower Tier/Municipal Act Dev. Agreements Dev. Agreements	3.1 Main channels and drainage trunks 3.2 Channel connections 3.3 Retention/detention ponds	0-100 0 0
4. Fire Protection Services	Lower Tier Lower Tier Lower Tier	4.1 Fire stations 4.2 Fire pumps, aerials and rescue vehicles 4.3 Small equipment and gear	100 100 100
5. Outdoor Recreation Services (i.e. Parks and Open Space)	Ineligible Lower Tier Lower Tier Lower Tier Lower Tier Lower Tier	5.1 Acquisition of land for parks, woodlots and ESAs 5.2 Development of local parks 5.3 Development of district parks 5.4 Development of municipal-wide parks 5.5 Development of special purpose parks 5.6 Parks rolling stock ¹ and yards	0 90 90 90 90 90
6. Indoor Recreation Services	Lower Tier Lower Tier	6.1 Arenas, indoor pools, fitness facilities, community centres, etc. (including land) 6.2 Recreation vehicles and equipment ¹	90 90
7. Library Services	Lower Tier Lower Tier	7.1 Public library space (incl. furniture and equipment) 7.2 Library materials	90 90
8. Electrical Power Services	Ineligible Ineligible Ineligible	8.1 Electrical substations 8.2 Electrical distribution system 8.3 Electrical system rolling stock	100 100 100
9. Provision of Cultural, Entertainment and Tourism Facilities and Convention Centres	Ineligible Ineligible	9.1 Cultural space (e.g. art galleries, museums and theatres) 9.2 Tourism facilities and convention centres	0 0
10. Waste Water Services	✓	10.1 Treatment plants	100

¹ with 7+ year life time
computer equipment excluded throughout

CATEGORIES OF MUNICIPAL SERVICES	ELIGIBILITY FOR INCLUSION IN THE DC CALCULATION (T=Upper Tier)	SERVICE COMPONENTS	MAXIMUM POTENTIAL DC RECOVERY %
	✓ ✓/Dev. Agreements ✓	10.2 Sewage trunks 10.3 Local systems 10.4 Vehicles and equipment ¹	100 100 100
11. Water Supply Services	✓ ✓ ✓/Dev. Agreements ✓	11.1 Treatment plants 11.2 Distribution systems 11.3 Local systems 11.4 Vehicles and equipment ¹	100 100 100 100
12. Waste Management Services	Ineligible Ineligible Ineligible	12.1 Collection, transfer vehicles ¹ and equipment 12.2 Landfills and other disposal facilities 12.3 Other waste diversion facilities	0 0 0
13. Police Services	✓ ✓ ✓	13.1 Police detachments 13.2 Police rolling stock ¹ 13.3 Small equipment and gear	100 100 100
14. Homes for the Aged	✓	14.1 Homes for the aged space	90
15. Day Care	✓	15.1 Child care space	90
16. Health	✓	16.1 Health department operating space	90
17. Social Services	✓	17.1 Social service operating space	90
18. Ambulance	✓ ✓	18.1 Ambulance station space 18.2 Vehicles ¹	90 90
19. Hospital Provision	Ineligible	19.1 Hospital capital contributions	0
20. Provision of Headquarters for the General Administration of Municipalities and Local Boards	Ineligible Ineligible Ineligible	20.1 Office space (all services) 20.2 Office furniture 20.3 Computer equipment	0 0 0
21. Other Services	✓ ✓	21.1 Studies in connection with acquiring buildings, rolling stock, materials and equipment, and improving land ² and facilities, including the DC background study cost 21.2 Interest on money borrowed to pay for growth-related capital ²	0-100 0-100

¹ with a 7+ year life time

² same percentage as service component to which it pertains

- 4.3.3 The Region has established specific policy guidelines concerning the Regional share of local services, in terms of which development-related requirements are incorporated in the development charge calculation vs. being a separate and independent requirement of development agreements, over and above the payment of the development charge. Guidelines as to the developer's local servicing requirements outside of development charges are set out in Appendix B.

4.4 Capital Cost Estimates

- 4.4.1 These estimates involve capital costing of the increased services discussed above. This entails costing actual projects or the provision of service units, depending on how each service has been addressed.
- 4.4.2 Potential capital costs are set out in s.s.5 (3) of the DCA.
- 4.4.3 In addition, the development charge background study is required to present the following cost allocation for each service involved:
- costs benefiting new development vs. existing development, with respect to costs incurred during the term of the by-law vs. the balance of the planning period. This information is provided on a project and service-specific basis in Appendices E to H.
- 4.4.4 The capital costs determined in Appendices E to H in accordance with s.s.5(1) of the *Development Charges Act, 1997*, reference projects as part of defining the increase in the need for service. It is anticipated that a number of such projects will evolve over time in response to the specific needs of new development. As a result, the cost, timing and nature of such projects may be altered as part of the Region's annual capital budgetary process. It is intended that development charge draws will be made for such projects, based on the development-related percentages which have been identified. In some instances, an allowance for unallocated improvements has been made where the total capital program could not be accurately identified.
- 4.4.5 Growth-related costs which are specifically designated as benefiting development post-2027 are expected to be recovered in subsequent years, once the DC planning period extends beyond 2027, based on Council's approval of the 2013 Background Study and this recommendation which forms part of it.

4.5 Credits Carried Forward

- 4.5.1 Section 8 para. 5 of O.Reg. 82/98 indicates that a development charge background study must set out, "the estimated value of credits that are being carried forward relating to the service." As a result, this provision should be made in the calculation, in order to avoid a funding shortfall with respect to future service needs. The Region of Durham has made agreements with respect to sanitary sewerage works only and the outstanding credits total \$438,700 for the

Duffin Heights Community. This amount has been deducted from the Sanitary Sewerage Development Charge Reserve Fund opening balance.

4.6 Eligible Debt and Committed Excess Capacity

- 4.6.1 Section 66 of the DCA, 1997 states that for the purposes of establishing a development charge by-law, a debt incurred with respect to an eligible service may be included as a capital cost, subject to any limitations or reductions in the Act.
- 4.6.2 In order for such costs to be eligible, two conditions must apply. First, they must have funded excess capacity which is able to meet service needs attributable to the anticipated development. Second, the excess capacity must be "committed," that is, either before or at the time it was created, Regional Council must have expressed a clear intention that it would be paid for by development charges or other similar charges. The primary focus of this development charge calculation is on capital costs yet to be incurred. However, there are a number of instances where the cost of projects not yet fully funded have been included. Provision has been made in the calculation for financing costs to be incurred by the Region for development charge cost components as part of the cash flow calculation methodology which was used.

4.7 Council's Assurance

- 4.7.1 In order for an increase in need for service to be included in the DC calculation, Regional Council must indicate "... that it intends to ensure that such an increase in need will be met" (s.s.5(1)3). This can be done if the increase in service forms part of a Council-approved Official Plan, capital forecast or similar expression of the intention of Council (O.Reg. 82/98 s.3).
- 4.7.2 The Region prepares capital plans for Transportation and Water Supply and Sanitary Sewerage as part of its annual Five Year Servicing and Financing Study process, which requires Council approval. In addition Council approval is sought for the full capital program requirement in this Background Study.

5.0 DCA CALCULATION REQUIREMENTS

5.0 DCA CALCULATION REQUIREMENTS

5.1 Introduction

5.1.1 Subsection 5(1) of the DCA sets out the method that must be used to determine development charges. This method specifically calls for five different types of deductions to be made from municipal servicing costs which relate to the need for eligible services attributable to new development anticipated over the planning period. These are:

- level of service cap;
- uncommitted excess capacity;
- benefit to existing development;
- grants, subsidies and other contributions; and
- the 10% statutory deduction for "soft services."

5.1.2 Two other calculation deductions are addressed herein as being implicit requirements. These are:

- post-period capacity;
- uncommitted DC reserve fund balances.

The basis for, and nature of, each of these DC calculation deductions is outlined below.

5.2 Level of Service Cap

5.2.1 Paragraph 4 of subsection 5(1) of the DCA, 1997 states that the estimate of the increase in the need for service attributable to the anticipated development, made under paragraph 2 must not include an increase that would result in the level of service exceeding the average level provided in the Region over the 10 year period preceding the preparation of the background study.

5.2.2 s.s.4(3) of O.Reg. 82/98 provides for an exception, such that:

"If the average level of service determined is lower than the standard level of service required under another Act, the standard level of service required under the other Act may be deemed ... to be the average level of service."

Section 4 of the Regulation also provides that:

- both the quantity and quality of a service shall be taken into account in determining the average level of service.

- 5.2.3 A commonly-used quantity measure is units per capita (e.g. lane kms, square feet, m³ capacity, hectares, etc.), while quality is to be primarily measured in terms of replacement costs or cost per unit.

These level of service calculations are referenced in Appendices E to H. They are based on a variety of measures, reflecting the nature of the service involved. In most cases, these measures incorporate a quantity (inputs) level of service measure, relating to service provided per development unit benefiting. The "development units benefiting" from the capital expenditures are sometimes the blended numbers of population, employees, etc.

- 5.2.4 This approach has the advantage of enabling an increase in development (population and/or employees) to be translated directly into the additional service requirement and the cost associated therewith. In this regard, employment represents one part of the non-residential requirement and further represents a surrogate for the servicing needs of customers, visitors and suppliers.

Population alone is used as the denominator in the case of services which are exclusively or almost entirely of benefit to residential development.

- 5.2.5 Variations on this theme are employed in the case of engineered services which are more highly subject to statutory and MOE controls and to costs which vary with the physical engineered requirements of individual development and servicing circumstances.

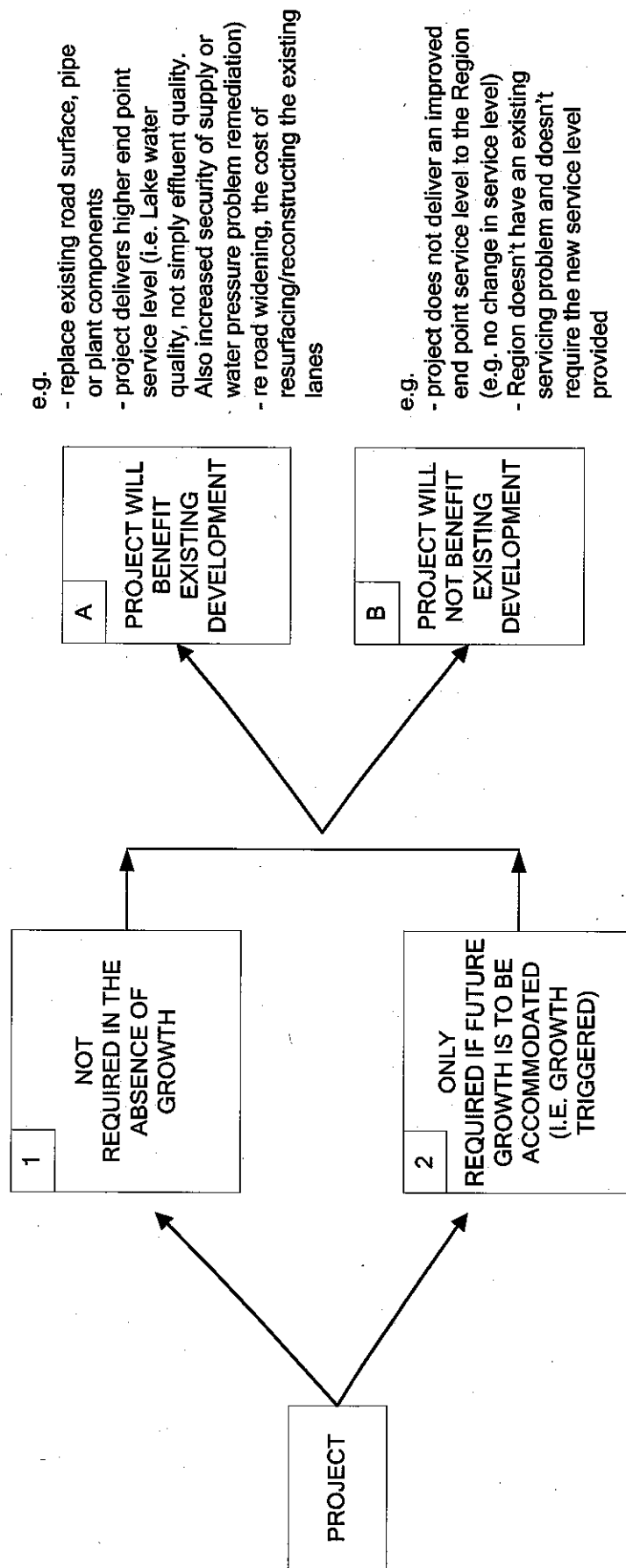
5.3 Uncommitted Excess Capacity

- 5.3.1 Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the Region's "excess capacity", other than excess capacity which is "committed", i.e. where Council has previously indicated a clear intention that it would be paid for by DCs or other similar charges, before or at the time it was created (s.5 of O.Reg. 82/98).
- 5.3.2 "Excess capacity" is undefined in the Act, but in this case must be able to meet some or all of the increase in need for service, in order to potentially represent a deduction. The deduction of "excess capacity" from the future increase in the need for service, occurs as part of the conceptual planning and feasibility work associated with justifying and sizing new facilities, e.g. if a road widening to accommodate increased traffic is not required because sufficient capacity is already available, then that widening would not be included as an increase in need, in the first instance. Another potential consideration is the relationship between the 2012 actual level of service and the ten year historical average and/or an operational review of the capacity functioning of a particular facility or service.

5.4 Benefit to Existing Development

- 5.4.1 Within a municipal-wide DC regime, benefit to existing development is typically established on a municipal-wide basis, without reference to the nature of the servicing gains or losses on a finer geographic basis. For example, road service level is typically measured based on overall volume/capacity or overall lane km/capita, without detailed reference to service capacity improvements or deficiencies that may be produced in some areas.
- 5.4.2 Figure 5-1 provides a basic outline of the circumstances in which some form of benefit to existing development deduction is normally made.

**FIGURE 5-1
BENEFIT TO EXISTING DEVELOPMENT OPTIONS**



5.5 Grants, Subsidies and Other Contributions

- 5.5.1 s.s.5(1)7 of the DCA requires that the capital costs must be reduced by the reductions set out in subsection (2).

s.s.5(2) states that:

"The capital costs, determined under para. 7 of subsection (1), must be reduced, in accordance with the regulations, to adjust for capital grants, subsidies and other contributions made to a municipality or that the Council of the municipality anticipates will be made in respect of the capital costs."

- 5.5.2 Section 6 of O.Reg. 82/98 indicates that any such grant, subsidy or other contribution (including developer contributions) must be used to reduce the s.s.5(1)7 capital costs in the same proportion as the increase in need was reduced under s.s.5(1), para. 6, unless at the time it was made, the person making it expressed a clear intention that all or part be used to benefit existing or new development. In the latter case, a deduction to capital costs must be made, but only to the extent that the funds were intended to benefit new development.

- 5.5.3 Any grants, subsidies, developer and other contributions anticipated have been reflected in Appendices E to H, in accordance with the provisions of the Act and Regulation.

5.6 10% Statutory Deduction for "Soft Services"

s.s.5(1)8 of the DCA requires that the capital cost calculation must be reduced by 10% for services other than water, sewer, storm water management, roads, fire and police.

5.7 Post-period Capacity

- 5.7.1 This is a term and a concept which is not specifically referenced in the DCA. It refers to development-related servicing capacity which has been added to a project and is not required by development anticipated over the Region's planning period, which will clearly benefit development in a **subsequent** planning period and should therefore be (partially) funded by such development, in this case post-2023 or post-2028 development.

5.7.2 For example if a sewage treatment plant is specifically sized to accommodate development beyond 2028, then the DC recovery of an appropriate portion of that cost should be deferred, such that it is funded by the development that ultimately benefits from it. This requirement is implicit in s.s.5(1)2 of the DCA, which requires the charge to be based on "the increase in the need for service attributable to the anticipated development...", in this case development 2013-2028. However, in the case of facilities which have not been significantly and explicitly oversized, no post-period capacity deduction is provided. Also, any deduction that is made is generally calculated on an incremental rather than average cost basis.

5.8 DC Reserve Fund Balances

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

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

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

5.8.3 The uncommitted balance of the Region's DC reserve fund (as of January 1, 2013) for roads, water, sanitary sewerage and long-term care, is to be applied against future spending requirements. Accordingly, these reserve fund amounts have been netted from the cash flow calculations for water, sanitary sewerage, roads and long term care.

5.8.4 This deduction is made in the case of these services, in that the DC calculation is geared to funding a large group of development-related works that are being implemented over the long term. While these works are also broadly subject to service level caps, each DC calculation is designed to fund an appropriate share of the overall program of works, over a "moving" long term period. Previous DC collections are, in effect, applicable only to projects they have been applied against. The calculation involves updating cost estimates and project descriptions, removing completed works and netting reserve fund balances, each time a new DC is established. This makes netting the reserve fund balance an appropriate and necessary part of the calculation for these kinds of services.

5.9 DC Calculation Methodology

5.9.1 The most common method of calculating a development charge is simply to divide the net residential development-related cost by the gross increase in population or single detached equivalent housing units. "Gross population" is used, in that it relates directly to the number of new housing units that will be subject to the charge. This approach implicitly assumes that an appropriate match will occur over time between DC receipts and expenditure requirements.

5.9.2 A more technical calculation method involves a cash flow approach. This method annualizes the expenditures to be DC funded as well as the amount of development expected to be subject to the charge. A development charge is calculated, based on appropriate indexing and interest assumptions, which is just sufficient to fund the expenditure cash flow. This approach has been adopted in Appendices E to H and involved the following steps:

- (a) Calculate net growth-related capital costs as per s.s.5(1) of the DCA;
- (b) Divide those costs between those attributable to residential vs. non-residential development, service by service;
- (c) Where applicable, start the DC cashflow calculation with the most recently available residential DC reserve fund balance for the service involved;
- (d) Subtract the net growth-related capital expenditures expected to be incurred for that service, during the year involved;
- (e) Subtract any other costs to be incurred during that year, such as DC credits, unfunded capital, debt charges, etc.;
- (f) Calculate the number of single detached equivalent units ("SDU") expected to pay DCs in that year (i.e. one apartment unit is less than one SDU because it has a lower occupancy and accordingly pays a lower DC);
- (g) Run the calculation model on an iterative basis, using different DC quantum assumptions until the closing reserve fund balance in the final year of the planning period is nil;
- (h) Calculate the expected DC revenues for that year (SDU's multiplied by the DC) and add them to the balance. Add any other applicable revenues;
- (i) Calculate the DC reserve fund closing balance for that year before interest;

- (j) Calculate interest earnings/costs expected to be incurred during that year, as the average of the opening and closing reserve fund balances times an annual rate of interest;
- (k) Add the interest earned or subtract the interest cost, in order to arrive at the closing balance for that year and repeat the calculation for the next (and subsequent) years in sequence. However, for each new year, inflate the capital expenditures involved other than in the case of debenture debt or other payments which may be fixed;
- (l) Also inflate the development charge rate using the same index used for capital expenditure inflation;
- (m) Repeat with necessary adjustments for the non-residential DC calculation.

6.0 DEVELOPMENT CHARGE RULES

6.0 DEVELOPMENT CHARGE RULES

6.1 Introduction

6.1.1 s.s.5(1)9 of the DCA states that rules must be developed:

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

Paragraph 10 of the section goes on to state that the rules may provide for exemptions, phasing in and/or indexing of development charges.

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

- the total of all DCs that would be imposed on anticipated development must not exceed the capital costs determined under 5(1) 2-8 for all services involved.
- if the rules expressly identify a type of development, they must not provide for it to pay DCs that exceed the capital costs that arise from the increase in the need for service for that type of development. However, this requirement does not relate to any particular development.

In order to address this requirement, the following conventions have been adopted:

1. The costs of residential uses have been assigned to different types of residential units based on the average occupancy for each housing type constructed during the first 15 years of occupancy.
 2. Costs are allocated to residential uses (as opposed to non-residential uses) based upon a number of factors, as may be suited to the circumstances of each individual service.
- if the rules provide for a type of development to have a lower development charge than is allowed, the rules for determining development charges may not provide for any resulting shortfall to be made up via other development.

6.1.3 With respect to “the rules”, Section 6 of the DCA states that a DC by-law must expressly address the matters referred to above re s.s.5(1) para. 9 and 10, as well as how the rules apply to the redevelopment of land.

6.2 Redevelopment Credits

6.2.1 Section 6, para. 3 of the DCA indicates that a development charge by-law must set out, “How the rules referred to in paragraph 1 [those for determining if a development charge is payable in any particular case and for determining the amount of the charge] apply to the redevelopment of land.”

- 6.2.2 In order to facilitate redevelopment, section 18 of By-law 44-2008 provides for a development charge credit to be applied in the amount of the applicable development charges within the current by-law. In the case of redevelopment to previously exempt land, buildings or structures (i.e. a former school property or a place of worship), this approach implies that no development charge reduction would be afforded as no DCs were chargeable as per the current exemptions within the by-law.
- 6.2.3 The proposed by-law includes a clause that explicitly clarifies that the redevelopment credit will only apply if the redeveloped structure or building is subject to development charges under the current by-law.
- 6.2.4 The current DC by-law also defines the period "...within ten years prior to the date of payment of development charges in regard to such redevelopment was, or is to be demolished..." (sec. 18. (1)) as the timeframe in which a redevelopment credit can be applied.
- 6.2.5 However, the current by-law does not explicitly identify what constitutes the demolition of the existing structure, which could range from when the demolition permit is issued, when the demolition actually starts or when the demolition is completed.
- 6.2.6 The proposed by-law amends the redevelopment credit policy to define the initiation of the 10-year redevelopment credit timeframe as the date when a demolition permit is issued.

6.3 Discretionary Exemptions

DC exemptions for non-residential development which are provided beyond the statutory provisions include places of worship and agricultural uses. The by-law also provides a residential exemption for garden suits and mobile homes, if removed within 10 years of the building permit issuance.

The proposed by-law introduces three new voluntary exemptions based on use:

- Public hospitals
- Parking structures
- Gas canopies and roof-like structures

6.3.1 Public Hospitals

- 6.3.1.2 It is recommended that public hospitals be exempt from development charges in the proposed DC by-law. This is the prevailing practice across many municipalities.

6.3.2 Parking Structures

- 6.3.2.1 Under the current By-law 44-2008, the Region includes 'parking garages' intended for the use for rental of parking spaces in the definition of retail use.
- 6.3.2.2 The proposed by-law includes an exemption for parking structures for non-residential development (includes at-, above, and below-grade parking).
- 6.3.2.3 In addition to the financial incentives for economic development, as well as intensification, this exemption provides incentive for a type of structure that is a more efficient use of land than surface parking lots.

6.3.3 Gas Canopies and Roof-like Structures

- 6.3.3.1 Under the current by-law, gas canopies have been assessed at the commercial development charge rate.
- 6.3.3.2 However, given the uses of such structures, it is proposed that canopies and other roof like structures be exempt.

6.4 Discounts

- 6.4.1 The current by-law included two key development charge discounts; a calculated rate discount for industrial development and a discount for Large Office developments. Each discount was introduced to ensure that the new commercial and industrial development charges, in 2008, would not discourage these types of development.

6.4.2 Industrial Discount

- 6.4.2.1 Prior to 2008, Durham Region only had a commercial non-residential development charge. By-law 44-2008 introduced the three non-residential categories. At the time it was concluded that the introduction of a nominal industrial development charge would not significantly hinder the growth of the industrial sector, based on the following rationale:
- Due to the relatively lower land prices compared to other GTA regions, Durham holds an advantage, cost-wise; and
 - Durham eliminated the municipal tax ratio on the Large Industrial Class resulting in all industrial properties being taxed at the residual industrial property tax rate.
- 6.4.2.2 With the advent of an industrial development charge in the 2008 DC by-law, a 50% discount was applied to the 2008-calculated rate of recovery for industrial development, thus ensuring that the Region's industrial charge was the lowest, and competitive among other Upper Tier municipalities in the Greater Toronto Area.

6.4.2.3 The proposed by-law includes a 100% calculated rate for industrial development. To date, the discounted costs to service the industrial development have been funded by the existing residents and business through higher user rates and property taxes. This practice is consistent with standard practice and will serve to somewhat moderate increases in property tax and user rates.

6.4.2.4 An analysis of the current industrial market in Durham Region demonstrates that industrial land and space is priced at the lowest per acre and per square foot within the Greater Toronto Area. This indicates that there is room in the market to absorb increased DC costs and remain price competitive with other Regions. The industrial development charge of \$10.18 per square foot in the proposed by-law (which will be \$10.49 with Transit DC charge) is cost competitive with other Regions in the GTA.

6.4.2.5 The following considerations, taken together, indicate that the feasibility of the Region gradually moving industrial development charges to a full cost recovery rate.

- i) Development costs and development charges are often rated as being secondary industrial site selection criteria; one of the most important of the criteria involves freeway access;
- ii) the extension of Highway 407, together with the North/South links, will significantly benefit the Region;
- iii) the Region has taken steps to reduce industrial facility operating costs by eliminating the Municipal tax ratio on the Large Industrial Class, thereby reducing industrial tax rates; and,
- iv) the industrial land prices in Durham Region are at the low end of the GTA scale. While this is, generally, a reflection of lower demand and industrial rents, it does provide the potential for development efficiencies and competitive development.

6.4.2.6 In order to permit the market to adapt to the higher charges, it is recommended that the new full cost recovery industrial development charge rate be phased in over a three-year period, commencing June 1, 2013 at 50% of the calculated rate (\$5.09 / sq. ft.) and increasing to the full rate by July 1, 2016.

6.4.3 Large Office Discount

6.4.3.1 Under the current DC by-law, office buildings are classified as commercial and subject to the commercial development charge. As an economic incentive, By-law 44-2008 introduced a commercial development charge discount of 75% for office buildings in excess of 25,000 square feet.

6.4.3.2 An analysis of large office development in Durham between 2008 and 2013 indicates that the large office discount did not provide a substantial incentive to large office development. Research of other municipalities indicates that this discount is not offered by any other Upper Tier municipality.

6.4.3.3 The proposed by-law does not include a discount for large office developments.

6.5 Application of Non-Residential Development Charge

6.5.1 Non-residential Non-Profit Development

6.5.1.1 Institutional development is one of the three non-residential categories in By-law 44-2008 defined as:

Lands, buildings, or structures used or designed for use by an organized body, society or religious group for promoting a public or non-profit purpose, and includes office uses where such uses are accessory to an institutional use. (s.1(r))

6.5.1.2 Much of the institutional sector is mandatorily exempt in the DC by-law via the Development Charges Act (i.e. schools and municipal facilities). The Region also provides discretionary exemptions for places of worship.

6.5.1.3 However, questions have been raised regarding how to apply the Regional Development Charges as they relate to non-residential non-profit purposes. For example if the development is for a retail purpose, such as a rental hall or a building at a golf course, it could be charged at the Commercial DC rate under the current by-law. However, under the definition in the current DC by-law, if the rental hall or golf course is owned and operated by a non-profit organization then the development could be charged the Institutional DC rate.

6.5.1.4 Non-profits, not-for-profits and charitable organizations are often used interchangeably to refer to an association, club, or society that is operated exclusively for social welfare, civic improvement, pleasure, recreation, or any other purpose except profit. The most common types of non-profit corporations are:

- General type - this would include such corporations as ratepayers' associations, professional associations, community organizations, etc.;
- Sporting and athletic organizations;
- Social clubs - these are corporations with objects in whole or in part of a social nature;
- Service clubs such as Rotary, Lions, Kiwanis and Optimist;
- Charities - these would include religious organizations and organizations that are engaged in carrying out certain good works that are of benefit to society.

6.5.1.5 The proposed by-law includes a broad definition as described above for the purpose of uniformly applying an institutional DC rate to non-residential development by non-profit organizations.

6.5.2 Commercial Accessory Buildings or Structures

- 6.5.2.1 Commercial developments (office and retail use) attract the highest non-residential DC rates of the three non-residential categories.
- 6.5.2.2 Under the current by-law, provisions were made to charge the lower industrial rate for office or retail space that is accessory to the principal industrial use. Similar provisions were made to charge the lower institutional rate for office uses where they are accessory to an institutional use. These policies ensure that uses accessory to industrial and institutional development that would normally attract a higher charge, are charged at the lower rate associated with the principal development.
- 6.5.2.3 There are no similar provisions afforded to retail development for structures or buildings that serve an accessory use, (i.e. mechanical storage or pump coverage).
- 6.5.2.4 A number of situations have arisen whereby the Region charged full commercial DCs on structures located on retail development sites that were not themselves retail in nature: this includes golf cart storage at a golf course and a pump house at a commercial race track. In such instances, the approach has been to consider each building or structure on the property as serving the principal, commercial, use.
- 6.5.2.5 The proposed by-law applies Development Charges for accessory commercial buildings and structures at the lower industrial rate. This is to ensure that the Region's policy is internally consistent in its existing treatment of other ancillary uses. That is, to charge accessory uses at a lower rate than would otherwise be the case, because of the reduced requirement for Regional services that they typically represent.
- 6.5.2.6 The following definition is recommended in the proposed by-law:

"Commercial Accessory Building or Structure" means a building or structure that complies with all of the following criteria:

- (i) is not essential to,
- (ii) is naturally and normally incidental to or subordinate in purpose to,
- (iii) is exclusively devoted to,
- (iv) is detached from, and
- (v) is situated on the same property as,

a principal commercial use. Commercial accessory buildings or structures shall include, but shall not be limited to, the separate storage of refuse, or the storage of mechanical equipment related to the operation or maintenance of the principal use, building, structure or site. Commercial accessory buildings or structures shall not include any building or structure, whether in whole or in part, falling within the definition of "commercial use" in this By-law."

- 6.5.2.7 Further, it is proposed that the application of the industrial rate to commercial accessory structures or buildings be limited to an aggregate of 7,000 square feet on the same site. Any square footage of such buildings in excess of 7,000 square feet will be charged at the prevailing commercial rate.

6.6 Region Share Policy

6.6.1 Residential Development

The Region Share Policy (Appendix B) provides the guidelines for the payment by the Region for capital works from development charges (not user rates or property taxes) required by the Region which are not of sole benefit to the landowner (e.g. internal Regional roads, a sanitary sewerage or a watermain which is oversized relative to that development's needs). These capital works are necessary to allow "upstream" development and efficient servicing. There are no recommended changes to the existing policy.

6.6.2 Region Share for the Over sizing of Sub-trunks for Non-residential Lands

- 6.6.2.1 In the 2008 Development Charge Background Study, it was recommended that the Region establish a strategy to allow a share of the non-residential development charge revenue be utilized to cost share with industrial developers for the extension of sub-trunks in strategic non-residential areas.
- 6.6.2.2 The Region had not historically provided financing for sub-trunks, related to non-residential development. At the time it was deemed that cost sharing for oversizing of strategic servicing of development-ready proposals would aid in meeting the employment objectives of the Regional Official Plan.
- 6.6.2.3 It is recommended that this allowance be discontinued in the 2013 Development Charge by-law. This allowance was not accessed or requested over the course of the 2008 DC by-law. Further, the increased density on employment lands through the recently approved Region Official Plan, the forthcoming extension of Highway 407 and the projected development of 40 acres of employment lands per year within Seaton are expected to abate the need for this sub-trunk Region Share Policy for oversizing of sub-trunks for Non-Residential Lands.

6.7 Well Interference Policy

- 6.7.1 The existing Regional Well Interference Policy (Appendix C) provides relief to residents in situations where their private well has potentially been negatively impacted by the construction of Regional services. The current policy has been Regional practice since 1999. Similar practices existed, in various forms, prior to 1999.
- 6.7.2 The existing Regional Well Interference Policy uses Development Charge revenue to:

- provide a temporary supply of water during construction of Regional Services to the affected homeowner;
- construct watermains and water services to homes that have been or will potentially be negatively impacted; and
- pay for work on private property, in cases of severe and direct impact.
- construct new wells as an alternative method of addressing impacted property owners that reside outside the water supply area or where it is not economically feasible to extend water services to the affected property

These costs are funded 100% from water supply development charges based on estimated activity levels.

6.8 Intensification Servicing Policy

- 6.8.1 The recently adopted Regional Official Plan requires that urban areas within the "Built Boundary" be planned to accommodate a minimum 40% of all residential development occurring annually through intensification within built-up areas. Overall servicing of this intensification has been included in the water supply and sanitary sewerage analyses contained in Appendix F and Appendix G. However, recent intensification-type developments across the Region have proven that such projects often occur on specific locations at a density beyond the average estimated for a broader area, as was considered in establishing these capital forecasts.
- 6.8.2 It is therefore recommended that the Region implement an Intensification Policy (Appendix D) to address servicing requirements specific to intensification development. Because the intensification related development charge works are site or area specific and cannot be predicted with any certainty in advance, it is recommended that a development charge component for such works be included to support intensification and a policy be created to provide access to these allowances.
- 6.8.3 The proposed policy, detailed in Appendix D, will create a sanitary sewerage development intensification allowance within the development charge and the capital program. There is no intensification allowance within the water supply capital program as capacity issues for water supply services did not exist in the sample of recent intensification projects that Regional staff considered.
- 6.8.4 This allowance will be funded by Region wide development charge collection of \$394 per single detached equivalent dwelling unit. Under the policy, developers can apply to use the funds, provided that certain criteria are met (located within the built-up area; must require DC work that is not already included in Appendix G; all local services are funded by the developer; and the development provides housing for at least 1000 people). Council approval will be required for all expenditures from this sanitary sewerage development intensification allowance.
- 6.8.5 This intensification policy ensures that the Regional Development Charge is sized so as to cover the unknown additional sanitary sewerage costs that are not included in the sanitary sewerage capital program. This development charge

component is addressed on an average Region-wide calculation basis, as with virtually all Regional servicing costs. Further, the development charge by-law provides an incentive for redevelopment via the redevelopment credit, which applies to non-exempt development being redeveloped.

6.9 Region-wide vs. Area-specific Charges

- 6.9.1 Most municipalities in Ontario have established uniform, municipal-wide development charges. This has been Durham's approach since 1991, with the exception of its approach to Seaton and Carruthers Creek.
- 6.9.2 When area-specific charges are used, it is generally to underpin master servicing and front-end financing arrangements, particularly in the case of stormwater management, collector/minor arterial roads and/or water and sanitary feeders applicable to defined "greenfield" development.
- 6.9.3 The Region is pursuing area-specific charges for water and sanitary sewerage in the case of the Seaton Community consistent with the front-ending agreements that will be required to advance the water and sewer infrastructure works in order to accommodate development in Seaton. Under the Development Charges Act, 1997, the Region plans to provide development charge credits to those developers entering into such front-ending agreements.
- 6.9.4 The rationale for separate area-specific charges for water and wastewater in Carruthers Creek reflects long-standing historical front end financing arrangements, which are explained in the separate background studies for these services.

6.10 DC Indexing

- 6.10.1 S.s.5 (1)9 of the DCA requires that rules must be developed to determine a number of things and they "... may also provide for the indexing of development charges based on the prescribed index" (s.s.5(1)10). Section 6, para. 2 requires that a DC by-law must set out an express statement indicating how, if at all, the rules provide for the indexing of development charges.
- 6.10.2 The "prescribed index" is defined in O.Reg. 82/98 s.7 as, "The Statistics Quarterly, Construction Price Statistics, catalogue number 62-007 as the index for the purposes of paragraph 10 of subsection 5(1) of the Act." Section 24 of the Region's existing DC by-law further specifies that such indexing is to occur on July 1 of each year based on data for the most recently available period ending March 31.
- 6.10.3 It is necessary that the Region's DC be indexed in order to ensure that there is sufficient funding for the works that the development charges have been calculated to cover, as the cost of those works to be constructed in future years increases with inflation.

6.10.4 Based on the use of the cash flow method of calculating the Region's DC, limited advantage is involved in indexing the charge more frequently than once per year. Any cash flow improvement is translated into reduced interest costs or increased reserve fund earnings and a commensurately lower DC. As a result, it is recommended that the Region continue with its annual indexing practice, commencing July 1, 2014.

6.11 Collection Policy

6.11.1 Residential Collection Timing

6.11.2 Under the Region's current DC By-law 44-2008, Regional Water Supply, Sanitary Sewerage and Regional Roads Development Charges for plans of subdivision are payable in full upon signing of a subdivision agreement or, at the option of the developer:

- a) 50% upon the first anniversary of the signing of the subdivision agreement with a letter of credit to be posted for 55% of the development charges at the execution of the subdivision agreement;
- b) 50% of the development charges otherwise payable on the second anniversary of the signing of the subdivision agreement, or as building permits are issued, whichever occurs first.

6.11.3 Under this type of arrangement, the Region can be placed in a position where the 55% security is insufficient to guarantee 100% payment by the second anniversary date if a developer builds very little in the first two years. As a result the Region has no recourse, because the security is exhausted. In these cases, which have arisen increasingly over the past four years the Region has had to work with local area municipalities to have a tax lien placed on the property to recover the payments. This has proved to be challenging administratively, and less than effective at recovering default payments.

6.11.4 To avoid the risk and cost to the Region, it is recommended that the current policy for the collection of development charges for hard services (water supply, sanitary sewerage and Regional roads), for plans of subdivision be modified to require payment in full upon signing of a subdivision agreement or, at the option of the developer:

- a) 50% upon execution of the subdivision agreement with a letter of credit to be posted for 55% of the total development charges at the execution of the subdivision agreement; and,
- b) the balance on the first anniversary date of the subdivision agreement or as building permits are issued, whichever occurs first.

6.11.5 The recommended accelerated timing of the collection of development charges would permit the Region to obtain reasonable cost recovery at the signing of a subdivision agreement, which is the time when capacity within the Regional

system is committed, as well as the assurance of full payment within a specified time period. The proposed requirement of full payment by the first anniversary date (or at building permit if sooner) ensures the Region is repaid the growth capital costs within a reasonable timeframe. Further, it minimizes the risks associated with invoking a lien on property taxes to recover unpaid development charges. Even with the condensed collection period, this collection policy remains somewhat more generous than some other GTA Regions.

- 6.11.6 Development charges payable for development not in the form of a plan of subdivision and high density blocks or condominium blocks in a residential plan of subdivision are payable at building permit issuance.

7.0 IMPLEMENTATION

7.0 IMPLEMENTATION

7.1 The By-law Adoption Process

- 7.1.1 The Region's proposed DC by-law is included in Appendix K.
- 7.1.2 Section 12 of the DCA, 1997 indicates that before passing a development charge by-law, Council must hold at least one public meeting, giving at least 20 clear days' notice thereof, in accordance with the Regulation. Council must also ensure that the proposed by-law and background study are made available to the public at least two weeks prior to the (first) meeting. Any person who attends such a meeting may make representations related to the proposed by-law.
- 7.1.3 If a proposed by-law is changed following such a meeting, the Council must determine whether a further meeting (under this section) is necessary (i.e. if the proposed by-law which is proposed for adoption has been changed in any respect, the Council should formally consider whether an additional public meeting is required), incorporating this determination as part of the final by-law or associated resolution. It is noted that Council's decision, once made, is final and not subject to review by a Court or the OMB.
- 7.1.4 The Region's 2013 development charge consultation process has included outreach to the GTA and Durham chapters of BILD; and the various Chambers of Commerce, Boards of Trade and other business associations. As well, Regional staff were approached by the private sector to consider the development charge treatment of hotels. Regional staff have met with local municipal staff to review an overview of the development, and capital programs as well as the potential policy changes. A meeting in late March has been scheduled with BILD. One letter of concern was received from a developer regarding a potential sports facility. In addition, in January 2012 the Region received two resolutions from the Oshawa City Council recommending Regional Development charge exemption for Secure Document Storage use and Self-Storage and Mini Warehouse uses. Report 2012-J-09 upheld the Regions position that secure document facilities fits within the retail definition under the current by-law and therefore appropriately attracts the commercial development charge.

7.2 Long Term Capital and Operating Cost Examination

- 7.2.1 Subsection 10(2)(c) of the Act requires that a DC Background Study include an examination for each service to which the development charge by-law would relate, of the long term capital and operating costs for capital infrastructure required for the service.
- 7.2.2 The capital costs include those required to initially put the necessary infrastructure in place, including the cost share to be absorbed by existing development (benefit to existing development, existing DC reserve fund balances and exemptions) as well as new development (calculated development charges, as well as future development charges from post period capacity). In addition, the

estimated cost of capital repairs, upgrades and ultimately asset replacement, over time should be set out.

- 7.2.3 Operating costs also need to be estimated, largely in order to verify the financial feasibility of the capital program from that perspective. While this analysis is less applicable to water, sewer and road works, which are in many cases, non-discretionary, than it is to some of the 'soft' services, it nevertheless represents a Background Study requirement.

Appendix I contains Durham's Long Term Capital and Operating Cost examination.

7.3 Potential Economic Impact on Development

- 7.3.1 One of the important considerations in the circumstance where a significant increase is proposed in the development charge, is the potential economic impact that such an increase may have upon the Region's future residential and non-residential development prospects.

- 7.3.2 Appendix J presents a summary of relevant DC comparisons and related material.

7.4 By-law Implementation

- 7.4.1 Once the Region has calculated the charge, prepared the complete Background Study, carried out the public process and passed a new by-law, the emphasis shifts to implementation matters. These include transitional arrangements, notices, potential appeals and complaints, credits, front-ending agreements, subdivision agreement conditions and finally the collection of revenues and funding of projects. The following section overviews requirements in each case.
- 7.4.2 In accordance with s.13 of the DCA, when a DC by-law is passed, the municipal clerk shall give written notice of the passing and of the last day for appealing the by-law (the day that is 40 days after the day it was passed). Such notice must be given no later than 20 days after the day the by-law is passed (i.e. as of the day of newspaper publication and the mailing of the notices).

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

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

- 7.4.3 In addition to the "notice" information, the Region must prepare a "pamphlet" explaining each development charge by-law in force, setting out:

- a description of the general purpose of the development charges;
- the "rules" for determining if a charge is payable in a particular case and for determining the amount of the charge;
- the services to which the development charge relates; and
- a general description of the general purpose of the Treasurer's statement and where it may be received by the public.

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

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

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

7.4.5 Over and above the right of approval, a person required to pay a development charge, or his agent, may "complain" to Regional Council imposing the charge that:

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

Sections 20-25 of the DCA, 1997 set out the requirements that exist, including the fact that a complaint may not be made later than 90 days after a DC (or any part of it) is payable. A complainant may appeal the decision of Regional Council to the OMB.

7.4.6 The Region and one or more landowners may enter into a front-ending agreement, which provides for the funding of the costs of a project, which will benefit an area in the Region to which the DC by-law applies. Such an agreement can provide for the costs to be borne by one or more parties to the agreement who are, in turn, reimbursed in future, by persons who develop land defined in the agreement. Part III of the DCA, 1997 (Sections 44-57) addresses front-ending agreements.

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

"local services, related to a plan of subdivision or within the area to which the plan related, to be installed or paid for by the owner as a condition of approval under section 51 of the *Planning Act*;"

"local services to be installed or paid for by the owner as a condition of approval under Section 53 of the *Planning Act*."

Appendix B sets out Durham's "Region Share Policy", which defines local services.

- 7.4.8 It is also noted that s.s.59(4) of the DCA, 1997 requires that the Region use its *Planning Act* power to impose conditions to ensure that the first purchaser of newly subdivided land is informed of all the development charges related to the development, at the time the land is transferred.

APPENDIX A

ANTICIPATED DEVELOPMENT, 2013-2028

INTRODUCTION

This Appendix presents the background information used to develop the anticipated amount, type and location of development for which development charges can be imposed.

Anticipated development forecasts are based on the growth forecasts prepared for the Durham Regional Official Plan Amendment No. 128 (ROPA 128) exercise, known as the “Growing Durham Study”. The forecasts assume growth will occur in the manner contemplated in the Regional Official Plan, with development concentrated primarily within the Urban Areas designated in the plan. A small allowance for rural growth is also included. The 2013 Development Charge Background Study is based on a 15 year interval from 2013 to 2028, in accordance with the Regional Official Plan, as amended by ROPA 128. This provides for the analysis to be conducted on uniform, 5-year intervals and is compliant with the *Development Charges Act, 1997*.

The anticipated residential and non-residential development is distributed by water supply and sanitary sewer servicing areas for purposes of developing the capital forecasts for those services. The residential and non-residential development is also distributed by transportation zone to calculate the Regional Roads capital forecast. Anticipated development is forecasted for the mid-year periods 2013 to 2018, 2018 to 2023, 2023 to 2028, 2013 to 2023, and 2013 to 2028.

Approach for Seaton Development

It is recognized that the development of the Seaton Community (refer to Figure A-1) must be in accordance with the Central Pickering Development Plan (CPDP).

The Regional development charge for Water Supply and Sanitary Sewerage is calculated based on the capital needs over the next 15 years, excluding Seaton. The Region is pursuing area-specific charges for water and sanitary sewerage in the case of the Seaton Community, as it is expected that front-ending agreements will be required to advance the water and sewer infrastructure works in order to accommodate development there. As such, the anticipated development forecasts are summarized with and without the forecasts for the Seaton community.

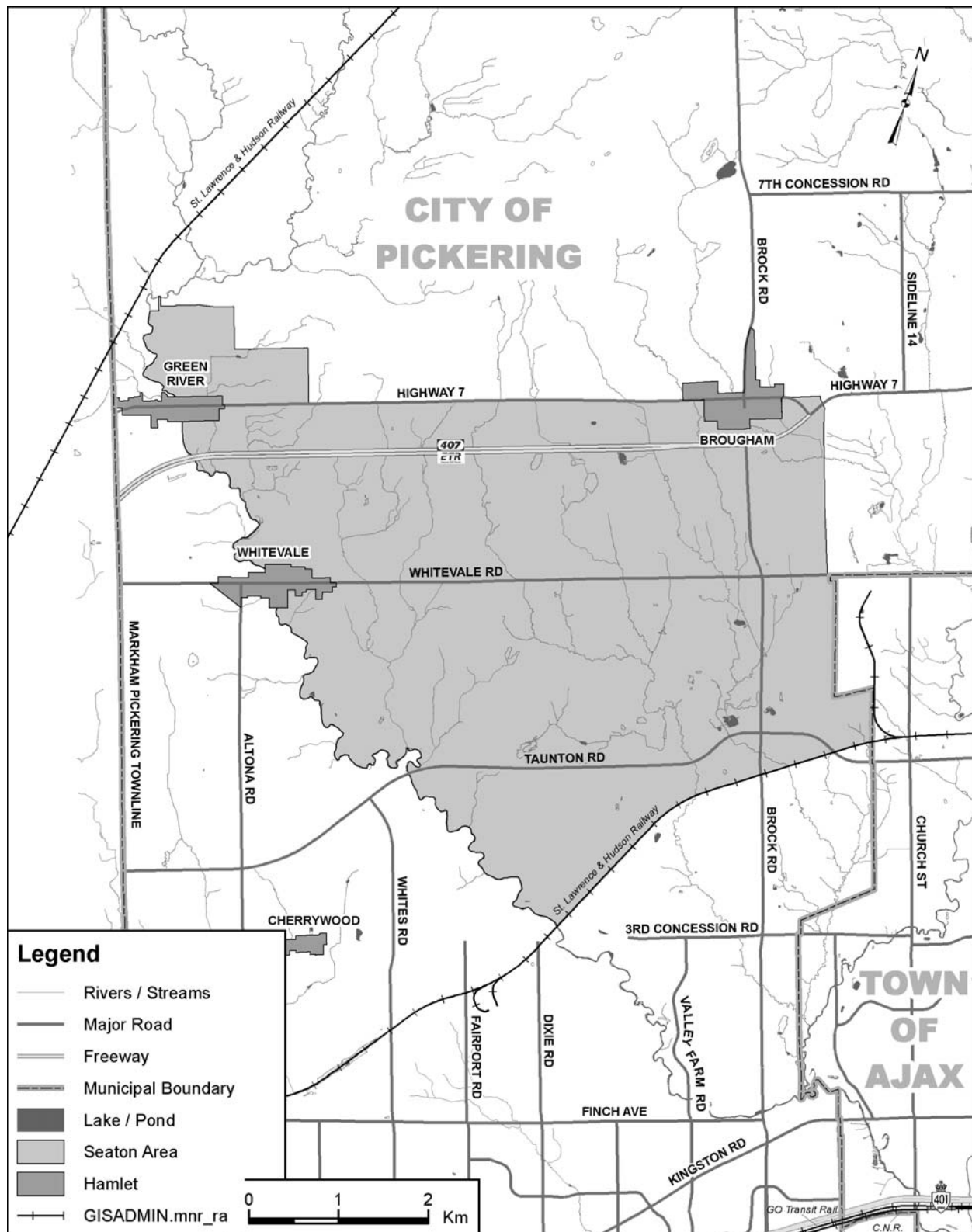
Water supply and sanitary sewerage treatment is planned on a local system basis and the requirements are specifically related to development in Seaton. Under this potential approach, developers/builders in the Seaton area would pay the area specific development charges for water and sewer, not the Regional Water Supply and Sanitary Sewerage Development Charges.

Other DC eligible services are calculated on a Region-wide basis, including Regional Roads, Transit, Long Term Care, Police, Emergency Medical Services (land ambulance), Health and Social Services and development-related studies. Development forecasts for these services include all of the Region.

The following looks first at the anticipated residential development, and then at the anticipated non-residential development. Each section presents tabular and graphic information used in developing the forecasts.

FIGURE A – 1

SEATON AREA



ANTICIPATED RESIDENTIAL DEVELOPMENT

The anticipated residential development was derived from demand-driven forecasts of future population growth, which were converted to dwelling units and distributed to servicing areas. The process can be summarized as follows:

- Population forecasts to the year 2031 were developed in the Growing Durham Study using the standard “cohort-survival” approach (the forecasts used in the Development Charges Study cover the 15-year period from 2013-2028). This methodology considers the change in three primary factors (births, deaths and net migration) in forecasting future population. It begins by calculating the natural increase in population as the difference between the total number of births and the total number of deaths for a particular “cohort,” or age category, over a given period of time. Historical trends from Statistics Canada Census data were used to predict future net migration rates. These future rates also reflect additional in-migration stemming from the realization of key structural elements recognized in the Regional Official Plan, such as the evolution of the university, the extension of Highway 407 and other key infrastructure projects. The forecasts do not assume any population related to the realization of an airport in north Pickering within the forecast period. The population forecast is derived from the 2031 population forecast figure (960,000) for Durham in Schedule 3 of the Provincial Growth Plan for the Greater Golden Horseshoe (2006);
- Household forecasts were then determined by applying typical person per household rates (trends derived from the 2006 Census data) to the population forecasts;
- The household figures, in turn, were converted to dwelling units by applying a factor for vacancy rate based on municipal assessment data; and
- The resulting forecasts of future population and dwelling units for the Region and area municipalities were distributed to the various servicing areas (i.e. transportation zones, water pressure zones and main drainage areas) based on phasing considerations, servicing constraints, and consideration of additional anticipated growth resulting from the realization of key structural elements mentioned above.

The following provides a summary of historical and forecasted population and dwelling unit information used to derive the anticipated residential development forecast:

- Table A-1 provides historical Statistics Canada Census population and household information since 1976, as well as assessed household and dwelling unit information since 1991.
- Table A-2 provides residential building permit information since 1976 by type of dwelling unit according to density (low, medium and apartment). Based on the Region's building permit data, the average annual number of new residential dwelling units, over the 15-year period 1997-2011, is 4,184. The results over the last five years have been less than this average, partly as a result of the recent national economic downturn.
- Table A-3 summarizes the forecasted dwelling units and population growth for the time periods 2013 to 2018, 2018 to 2023, 2023 to 2028, 2013 to 2023 and 2013 to 2028.
- Table A-4 provides the total population, with and without Seaton, for 2013; for the increase in population between 2013 and 2028; and for 2028.
- Table A-5 provides the residential dwelling unit forecast by type of unit for the time periods 2013 to 2018, 2018 to 2023, 2023 to 2028, 2013 to 2023 and 2013 to 2028. Based on historical Census data, the total apartments are proportioned so that 35% consists of bachelor and one bedroom units and 65% consists of units with two bedrooms or more.
- Table A-6 provides the percentage shares of urban and rural residential dwelling units as a proportion of total residential dwelling units for the periods 2013 to 2018, 2018 to 2023, 2023 to 2028, 2013 to 2023 and 2013 to 2028.
- Table A-7 provides the residential dwelling unit growth forecast by year for the relevant periods of time between 2013 and 2028. The forecast growth is shown for urban, rural, and total new dwelling units.
- Figure A-2 graphically illustrates the annual number of new residential dwelling units for the period 1995 to 2011, based on the increments of dwelling units in Table A-1, as well as the annual number of residential dwelling units forecast for the 2011 to 2028 period. The forecast results are derived from the forecast data contained in Table A-7.
- Table A-8 provides the distribution of the anticipated residential dwelling unit growth by area municipality for the periods 2013 to 2018, 2018 to 2023, 2023 to 2028, 2013 to 2023 and 2013 to 2028.
- Table A-9 provides the distribution of the anticipated population growth by area municipality for the periods 2013 to 2018, 2018 to 2023, 2023 to 2028, 2013 to 2023 and 2013 to 2028.

- Table A-10 provides the average number of persons per unit, by type of residential dwelling unit according to density. This is based on an analysis of residential dwelling units in Durham Region from 1-15 years old as reported by Statistics Canada (Special Tabulation) during the 2006 Census. Data from the 2011 Census was not available for this analysis.
- Table A-11 shows the calculation of the standard equivalent units which are used for revenue calculation purposes (refer to Appendices **E, F, G and H**). Standard equivalent units represent the total anticipated residential development as expressed in low density units (singles and semis), which is based on the relative average number of persons per density unit type. This table is calculated based on the information provided in previous tables. The information summarized in this table is used for calculating the residential development charge. The total “With Seaton” amounts (Section D) are used for the Regional Roads and General calculations, while the urban “Without Seaton” figures are used for Water Supply and Sanitary Sewerage purposes.

TABLE A-1

ASSESSED AND CENSUS POPULATION, HOUSEHOLDS AND DWELLING UNITS 1976 - 2011			
YEAR	POPULATION	HOUSEHOLDS	DWELLING UNITS
1976 Census	247,473	73,685	NA
1981 Census	283,639	90,650	NA
1986 Census	326,179	106,655	NA
1991 Census 1991 Census (Includes Undercount)	409,070 422,962	136,135	136,565
1991 Assessed	NA	135,697	142,843
1992 Assessed	NA	140,134	147,195
1993 Assessed	NA	143,494	150,324
1994 Assessed	NA	147,647	153,456
1995 Assessed	NA	150,690	156,106
1996 Census 1996 Census (Includes Undercount)	458,616 471,353	154,100	154,310
1996 Assessed	NA	154,306	158,907
1997 Assessed	NA	157,928	162,581
1998 Assessed	NA	161,103	165,433
1999 Assessed	NA	163,466	168,235
2000 Assessed	NA	167,800	172,242
2001 Census 2001 Census (Includes Undercount)	506,901 526,987	171,723	175,738
2001 Assessed	NA	173,127	177,375
2002 Assessed	NA	177,104	181,552
2003 Assessed	NA	NA	NA
2004 Assessed	NA	N/A	NA
2005 Assessed	NA	190,864	197,757
2006 Census 2006 Census (Includes Undercount)	561,258 584,360	194,672	202,155
2006 Assessed	NA	195,896	204,098
2007 Assessed	NA	NA	208,663
2008 Assessed	NA	NA	210,060
2009 Assessed	NA	NA	213,619
2010 Assessed	NA	NA	218,235
2011 Census 2011 Census (est. 3.95% undercount)	608,124 633,135	213,746	220,598
2011 Assessed	NA	NA	221,553
Source: Ministry of Revenue, MPAC and Statistics Canada. Notes: NA - Not Available (No enumeration conducted) or Not Applicable. Est. - Estimated. Census figures as of mid-year. Assessed households and dwelling units as of year-end. Households are defined as residential dwelling units that are occupied. Dwelling Units are defined as all residential dwelling units, occupied or unoccupied. 1991, 1996, 2001 and 2006 Census estimates (undercount included) for population from Statistics Canada Annual Demographic Statistics. 2011 Census estimate for population – assumes same % undercount as in 2006. Undercount refers to estimate of net postcensal undercoverage of population for Durham Region.			

NEW RESIDENTIAL UNITS BY TYPE OF DWELLING UNIT (FROM BUILDING PERMIT RECORDS)
1976 – 2011

YEAR	LOW DENSITY (Single/Semi)		MEDIUM DENSITY (Row/Town)		APARTMENT		TOTAL UNITS DURHAM REGION	TOTAL UNITS STATISTICS CANADA
	No.	%	No.	%.	No.	%.		
1976	2,816	53.0	1,040	19.6	1,455	27.4	5,311	4,673
1977	2,418	59.1	827	20.2	846	20.7	4,091	2,777
1978	2,559	68.1	358	9.5	843	22.4	3,760	3,750
1979	1,350	85.0	103	6.5	135	8.5	1,588	1,567
1980	1,043	78.1	9	0.7	283	21.2	1,335	1,329
1981	2,482	87.8	37	1.3	307	10.9	2,826	2,692
1982	1,892	66.5	193	6.8	762	26.8	2,847	2,848
1983	2,515	74.0	330	9.7	555	16.3	3,400	3,388
1984	2,624	92.7	116	4.1	92	3.2	2,832	2,772
1985	3,943	91.7	59	1.4	297	6.9	4,299	4,248
1986	6,554	91.0	169	2.3	480	6.7	7,203	7,245
1987	6,701	80.3	768	9.2	875	10.5	8,344	7,920
1988	6,538	79.6	542	6.6	1,137	13.8	8,217	8,194
1989	4,169	71.6	294	5.0	1,363	23.4	5,826	5,711
1990	2,398	64.0	673	18.0	673	18.0	3,744	3,428
1991	2,249	54.9	809	19.8	1,036	25.3	4,094	4,161
1992	1,804	66.6	536	19.8	368	13.6	2,708	2,765
1993	1,872	73.0	327	12.8	364	14.2	2,563	2,574
1994	2,943	76.7	634	16.5	261	6.8	3,838	3,975
1995	1,173	66.2	479	27.0	121	6.8	1,773	2,002
1996	2,517	74.6	604	17.9	251	7.4	3,372	3,278
Annual Avg. 1976-96	2,979	74.5	424	10.6	595	14.9	3,999	3,662
1997	3,203	85.8	453	12.1	77	2.1	3,733	3,657
1998	2,527	83.1	471	15.5	43	1.4	3,041	3,046
1999	3,171	77.7	536	13.1	375	9.2	4,082	3,953
2000	3,503	77.9	646	14.4	346	7.7	4,495	4,806
2001	3,259	78.4	772	18.6	128	3.1	4,159	4,287
2002	4,342	81.5	660	12.4	323	6.1	5,325	5,157
2003	4,988	80.1	966	15.5	277	4.4	6,231	6,164
2004	3,662	74.6	869	17.7	380	7.7	4,911	4,903
2005	4,482	77.5	1,080	18.7	221	3.8	5,783	5,538
2006	3,693	70.4	1,011	19.3	540	10.3	5,244	5,266
2007	2,914	78.0	645	17.3	179	4.8	3,738	3,640
2008	2,125	66.9	963	30.3	89	2.8	3,177	3,114
2009	1,568	72.3	330	15.2	270	12.5	2,168	2,151
2010	2,010	66.7	690	22.9	312	10.4	3,012	2,984
2011	2,340	63.8	727	19.8	600	16.4	3,667	3,567
Annual Avg. 1997-11	3,186	76.1	721	17.2	277	6.6	4,184	4,149
Annual Avg. 2002-11	3,212	74.3	794	18.4	319	7.4	4,326	4,248

Based on area municipal building permit reports, and Statistics Canada data.
Low Density" includes Singles, Semi-detached, and links.
Medium Density" includes row/townhouse units and apartments in duplex.

TABLE A-3

RESIDENTIAL DWELLING UNIT AND POPULATION GROWTH FORECAST 2013-2028		
PERIOD	DWELLING UNIT GROWTH	POPULATION GROWTH
TOTAL		
2013-2018	28,600	66,565
2018-2023	34,295	77,030
2023-2028	39,350	88,685
2013-2023	62,900	143,595
2013-2028	102,250	232,280
WITHOUT SEATON		
2013-2018	21,880	45,680
2018-2023	27,630	57,030
2023-2028	34,135	74,040
2013-2023	49,510	102,710
2013-2028	83,650	176,750
SEATON ONLY		
2013-2018	6,720	20,885
2018-2023	6,665	20,000
2023-2028	5,210	14,645
2013-2023	13,385	40,885
2013-2028	18,600	55,530
Note: Numbers may not add due to rounding. The time period for each specified year in the range represents the end of May to coincide with Census enumeration. Seaton population figures derived from CPDP Amendment #1 which identifies a 2031 population target for Seaton of 61,000.		

TABLE A-4

POPULATION 2013-2028			
TOTAL	2013	2013-2028	2028
With Seaton	641,620	232,280	873,905
Without Seaton	641,290	176,750	818,040
Note: Numbers may not add due to rounding.			

TABLE A-5

RESIDENTIAL DWELLING UNIT GROWTH FORECAST BY TYPE 2013-2028				
PERIOD	LOW DENSITY (Single/Semi)	MEDIUM DENSITY (Row/Town)	APARTMENT	
			BACHELOR/ ONE BEDROOM	TWO BEDROOMS OR MORE
			(35%)	(65%)
WITH SEATON				
2013-2018	16,600	6,605	1,890	3,505
2018-2023	16,320	9,405	3,000	5,570
2023-2028	15,480	10,935	4,530	8,410
2013-2023	32,920	16,010	4,890	9,080
2013-2028	48,400	26,945	9,415	17,490
SEATON				
2013-2018	2,705	3,180	290	545
2018-2023	3,150	2,565	335	620
2023-2028	2,070	2,060	375	700
2013-2023	5,855	5,745	625	1,160
2013-2028	7,925	7,810	1,005	1,860
WITHOUT SEATON				
2013-2018	13,895	3,425	1,595	2,965
2018-2023	13,170	6,840	2,670	4,955
2023-2028	13,405	8,870	4,150	7,710
2013-2023	27,065	10,265	4,265	7,920
2013-2028	40,475	19,135	8,415	15,625
Note: "Low density" includes single and semi-detached residential dwelling units as well as links. "Medium density" includes all townhomes and apartments in duplex. "Apartment" refers to an apartment unit in a high-rise building which has five or more stories, as well as low rise apartments, basement apartments, flats in converted houses, and apartments attached to non-residential buildings. All figures are rounded. The time period for each specified year in the range represents the end of May to coincide with Census enumeration.				

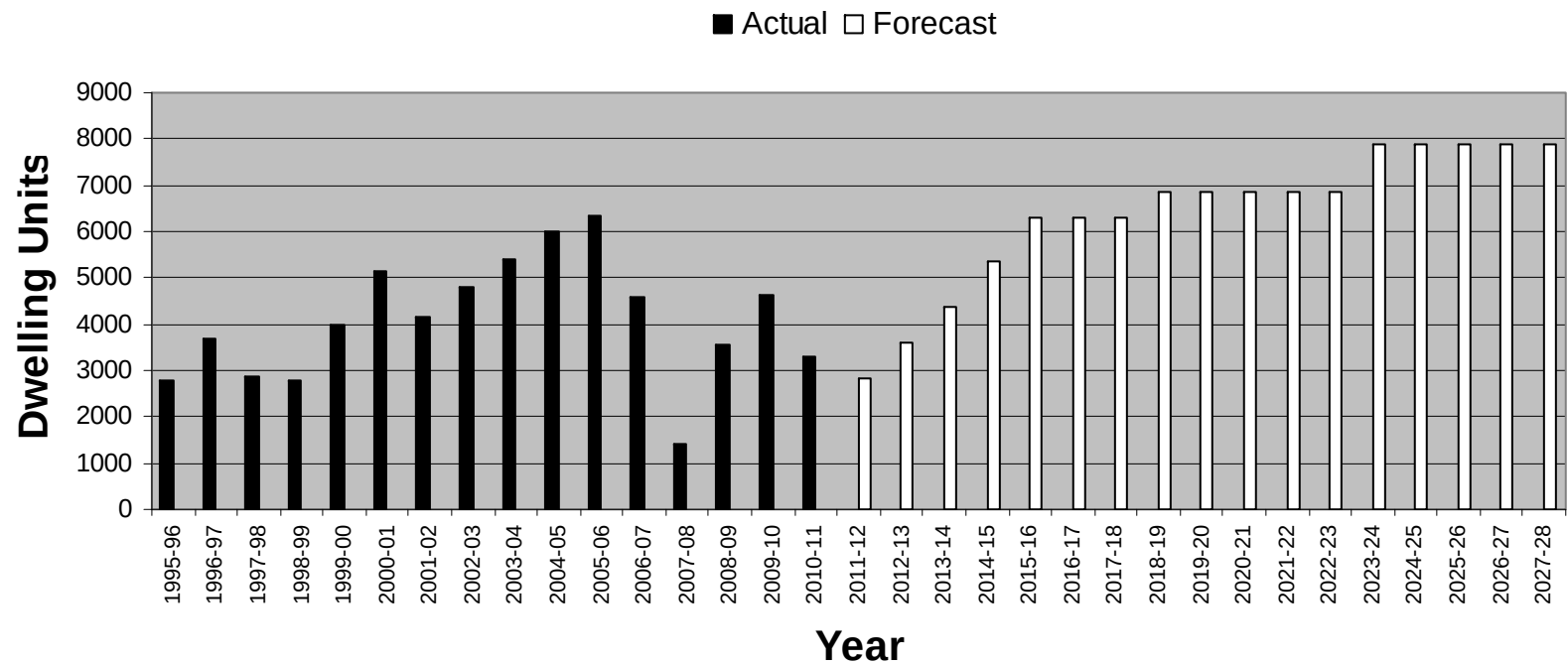
TABLE A-6

PERCENTAGE SHARES OF URBAN AND RURAL RESIDENTIAL DWELLING UNITS 2013-2028		
PERIOD	URBAN	RURAL
WITH SEATON		
2013-2018	98.8%	1.2%
2018-2023	99.0%	1.0%
2023-2028	99.1%	0.9%
2013-2023	98.9%	1.1%
2013-2028	99.0%	1.0%
WITHOUT SEATON		
2013-2018	98.4%	1.6%
2018-2023	98.7%	1.3%
2023-2028	99.0%	1.0%
2013-2023	98.6%	1.4%
2013-2028	98.8%	1.2%

TABLE A-7

RESIDENTIAL DWELLING UNIT GROWTH FORECAST (NEW UNITS) BY TIME PERIOD, 2013-2028			
YEAR	URBAN (NEW UNITS)	RURAL (NEW UNITS)	TOTAL (NEW UNITS)
WITH SEATON			
2013-14	4,305	70	4,375
2014-15	5,265	70	5,335
2015-16	6,225	70	6,295
2016-17	6,225	70	6,295
2017-18	6,225	70	6,295
2013-2018	28,260	345	28,600
2018-19	6,790	70	6,860
2019-20	6,790	70	6,860
2020-21	6,790	70	6,860
2021-22	6,790	70	6,860
2022-23	6,790	70	6,860
2018-2023	33,950	345	34,295
2023-2028	39,000	350	39,350
2013-2023	62,210	690	62,900
2013-2028	101,210	1,040	102,250
WITHOUT SEATON			
2013-14	4,305	70	4,375
2014-15	4,305	70	4,375
2015-16	4,305	70	4,375
2016-17	4,305	70	4,375
2017-18	4,305	70	4,375
2013-2018	21,535	345	21,880
2018-19	5,455	70	5,525
2019-20	5,455	70	5,525
2020-21	5,455	70	5,525
2021-22	5,455	70	5,525
2022-23	5,455	70	5,525
2018-2023	27,285	345	27,630
2023-2028	33,785	350	34,135
2013-2023	48,825	690	49,510
2013-2028	82,610	1,040	83,650
Note: Numbers may not add due to rounding.			

FIGURE A-2
Region of Durham
Residential Dwelling Unit Growth



Note: "Actual" is based on dwelling unit growth in Table A-1.

TABLE A-8

RESIDENTIAL DWELLING UNIT GROWTH FORECAST BY AREA MUNICIPALITY (WITH AND WITHOUT SEATON), 2013-2028					
AREA MUNICIPALITY	2013-2018	2018-2023	2023-2028	2013-2023	2013-2028
Ajax	4,725	2,370	1,525	7,090	8,620
Brock	260	410	540	665	1,205
Clarington	4,210	5,625	6,735	9,835	16,570
Oshawa	3,925	5,380	7,670	9,305	16,975
Pickering	9,930	11,040	10,020	20,970	30,985
With Seaton Community					
Without Seaton Community	3,210	4,375	4,810	7,585	12,385
Scugog	425	580	760	1,005	1,765
Uxbridge	680	865	910	1,545	2,455
Whitby	4,450	8,030	11,190	12,485	23,670
Durham	28,600	34,295	39,350	62,900	102,250
With Seaton Community					
Without Seaton Community	21,880	27,630	34,135	49,510	83,650
Note: Figures may not add due to rounding.					

TABLE A-9

POPULATION GROWTH FORECAST BY AREA MUNICIPALITY (WITH AND WITHOUT SEATON), 2013-2028					
AREA MUNICIPALITY	2013-2018	2018-2023	2023-2028	2013-2023	2013-2028
Ajax	11,690	4,975	2,390	16,660	19,050
Brock	75	420	740	500	1,240
Clarington	10,180	13,260	15,750	23,440	39,190
Oshawa	5,950	8,905	14,585	14,855	29,440
Pickering	27,620	28,860	26,165	56,480	82,645
With Seaton Community					
Without Seaton Community	6,735	8,855	11,520	15,595	27,115
Scugog	225	655	1,215	875	2,090
Uxbridge	1,135	1,465	1,565	2,600	4,165
Whitby	9,690	18,490	26,275	28,185	54,455
Durham	66,565	77,030	88,685	143,595	232,280
With Seaton Community					
Without Seaton Community	45,680	57,030	74,040	102,710	176,750
Note: Figures may not add due to rounding.					

TABLE A-10

AVERAGE NUMBER OF PERSONS PER UNIT BY TYPE FOR DWELLING UNITS AGED 1-15 YEARS		
DWELLING UNIT DENSITY	PERSONS PER UNIT	% OF SINGLE DETACHED
Low Density (Single and Semi Detached)	3.46	100.00%
Medium Density (Attached/Multiple)	2.78	80.35%
Apartment (Bachelor/One Bedroom)	1.31	37.86%
Apartment (Two bedroom and greater)	2.01	58.09%
Single detached refers to a single dwelling unit not attached to any other dwelling or structure (except its own garage or shed). Semi-detached refers to one of two dwellings attached side by side (or back to front) to each other, but not to any other dwelling or structure (except its own garage or shed). Attached/Multiple refers to other dwelling unit types not included above such as townhouses. Apartment refers to an apartment unit in a high-rise building which has five or more stories, as well as low rise apartments, basement apartments, flats in converted houses, and apartments attached to non-residential buildings. Based on 2006 Census Special Tabulations.		

STANDARD EQUIVALENT UNITS 2013-2028

STANDARD EQUIVALENT UNITS 2013-2028											
Years	(A) Residential Dwelling Unit Forecast (All Types of Units)	(B) Residential Dwelling Unit Forecast (By Type of Unit)				(C) Standard Equivalent Units (By Type of Unit)				(D) Standard Equivalent Units (Total Units)*	
		Low Density (Single/ Semi)	Medium Density (Row/ Town)	Apartment 2 Bedroom +	Apartment Bach./1 Bedroom	Low Density 100%	Medium Density 80.35%	Apartment 2 Bedroom + 58.09%	Apartment Bach./1 Bedroom 37.86%	Roads & General	Water & Sewer
WITH SEATON											
2013-14	4,375	2,780	685	595	320	2,780	550	345	120	3,795	3,735
2014-15	5,335	3,165	1,140	670	360	3,165	915	390	135	4,605	4,550
2015-16	6,295	3,550	1,595	750	405	3,550	1,280	435	150	5,420	5,360
2016-17	6,295	3,550	1,595	750	405	3,550	1,280	435	150	5,420	5,360
2017-18	6,295	3,550	1,595	750	405	3,550	1,280	435	150	5,420	5,360
2018-2023	34,295	16,320	9,405	5,570	3,000	16,320	7,555	3,235	1,135	28,250	27,965
2023-2028	39,350	15,480	10,935	8,410	4,530	15,480	8,785	4,885	1,715	30,865	30,590
2013-2023	62,900	32,920	16,010	9,080	4,890	32,920	12,865	5,275	1,850	52,910	52,330
2013-2028	102,250	48,400	26,945	17,490	9,415	48,400	21,650	10,160	3,565	83,775	82,920
WITHOUT SEATON											
2013-14	4,375	2,780	685	595	320	2,780	550	345	120	3,795	3,735
2014-15	4,375	2,780	685	595	320	2,780	550	345	120	3,795	3,735
2015-16	4,375	2,780	685	595	320	2,780	550	345	120	3,795	3,735
2016-17	4,375	2,780	685	595	320	2,780	550	345	120	3,795	3,735
2017-18	4,375	2,780	685	595	320	2,780	550	345	120	3,795	3,735
2018-2023	27,630	13,170	6,840	4,955	2,670	13,170	5,500	2,875	1,005	22,555	22,270
2023-2028	34,135	13,405	8,870	7,710	4,150	13,405	7,135	4,475	1,565	26,585	26,310
2013-2023	49,510	27,065	10,265	7,920	4,265	27,065	8,255	4,600	1,610	41,530	40,950
2013-2028	83,650	40,475	19,135	15,625	8,415	40,475	15,385	9,075	3,175	68,115	67,265
Notes: * - "Roads & General", "With Seaton", used for Regional Roads and Soft Services rate calculations. - "Water & Sewer", "Without Seaton", used for Water Supply and Sanitary Sewerage rate calculation purposes. - Figures are rounded.											
1. Section A is from Table A-7 2. Section B is obtained from Table A-5 3. Section C is obtained by applying the relative difference in average number of persons/unit by type from Table A-10 to Section B. 4. Section D is obtained as follows: Roads & General are 100% of total units in Section C; Water & Sewer is obtained by applying the share of urban units from Table A-6 to the total units in Section C. 5. Numbers may not add due to rounding.											

ANTICIPATED NON-RESIDENTIAL DEVELOPMENT

The anticipated non-residential development forecast is derived from future employment growth, converted to floor space (expressed in square metres) and assigned to servicing areas. The process can be summarized as follows:

- Employment forecasts to the year 2031 were developed in the Growing Durham Study (the forecasts used in the Development Charges Study cover the 15-year period from 2013-2028). The forecasts do not assume any population or employment related to the realization of an airport in north Pickering within the forecast period. The employment forecasts are derived from the 2031 employment forecast figure (350,000) for Durham in Schedule 3 of the Provincial Growth Plan for the Greater Golden Horseshoe (2006);
- Non-residential floor space forecasts were derived for each major category by applying typical density conversion factors (i.e. square metres per employee) to the employment forecast for that sector. The typical density figures for the industrial and commercial sectors are based on an analysis of historical and current trends in Durham Region. The institutional density figure is based on existing floor space and land area utilization data obtained from the Municipal Property Assessment Corporation (MPAC) property assessment information and the Region's employment lands database, reflecting local conditions. The floor space forecasts by major category were allocated by area municipality; and
- The resulting forecasts of future employment for the Region were then distributed to the various servicing areas (i.e. transportation zones, and "demand areas", a composite of water pressure zones and main drainage areas). The forecasts were first separated into expansion (i.e. additions to existing buildings) and new (i.e. construction of new buildings) growth shares based on historical building permit data. The forecast shares were then assigned to servicing areas, recognizing phasing considerations and servicing constraints. The expansion growth share was allocated to servicing areas according to the existing distribution of non-residential development. New growth was distributed based on available land supply (for Employment Area), non-residential parcel area (for Built Boundary Area), and the location and magnitude of dwelling unit growth (for Greenfield Area).

The following provides a summary of the historical and forecast employment and floor space information used to derive anticipated non-residential development:

- Table A-12 provides historical population, employment and activity rates for Durham Region from 1991, 1996, 2001 and 2006 Statistics Canada Census data. The employment information is summarized according to the major Statistics Canada categories, being Primary, Industrial, Commercial and Institutional. The following types of employment are included in these categories:
 - Primary – agriculture, fishing, trapping, logging, forestry, mining, quarrying, oil well;
 - Industrial – manufacturing; transportation and storage; communication and other utility; and wholesale trade;
 - Commercial – retail trade; finance, insurance, and real estate; business services; accommodation, food and beverage services; and other services; and
 - Institutional – government, educational, health and social services.
- “Work at Home” employment is also provided. However “No Fixed Place of Work” employment is not included.
- Table A-13 shows the historical non-residential floor space created in Durham Region for the 1984 – 2011 period based on building permit data for Industrial, Commercial, Institutional and Governmental uses. For the purposes of the Development Charges Background Study, the Institutional and Governmental categories are combined into an Institutional category consistent with the Statistics Canada building permit and employment information. The average percentage share of non-residential floor space created by category over this period is: Industrial (36.15%); Commercial (32.85%); and Institutional (31.00%).
 - Table A-14 summarizes forecast employment and non-residential floor space for the 2013 – 2028 period by major employment category. Separate forecasts are provided with and without the Seaton community. Floor space assumptions (square meters/employee) for each area municipality were applied to each respective employment forecast by Industrial, Commercial and Institutional categories to determine the Floor Space values. Over the forecast period, the Region’s employment is anticipated to grow by about 111,115 jobs, from 216,835 to 327,950 (including Seaton). This employment growth is expected to create an additional 7.2 million m² of non-residential floor space, increasing the total amount in Durham from about 12.7 million m² to 19.8 million m².

- Table A-15 provides the overall floor space per employee results for Durham Region, for each employment category, for the entire 2013-2028 period, with and without the Seaton community.
- Figure A-3 graphically compares historical and forecast employment from Tables A-12 and A-14, illustrating the growth in employment over the forecast period.
- Figure A-4 summarizes forecasted non-residential floor space by major employment category from Table A-14. Non-residential floor space is anticipated to grow at a steady rate over the 2013-2023 forecast period, with a decline in the amount of growth over the 2023-2028 forecast period.
- Table A-16 shows the historical shares of urban and rural floor space as a proportion of total non-residential floor space created for the 1986 – 2011 period. Differentiation by urban and rural areas is required to determine the proportion of forecast floor space subject to Regional water supply and sanitary sewer services (urban only). On average, 96% of the non-residential floor space added annually over the past 26 years has been constructed in the urban area.
- Figure A-5 compares actual historical and forecast growth in non-residential floor space by year from Tables A-13 and A-14. Non-residential development activity in Durham has been cyclical over time, as a result of changes in the economy. For example, the non-residential sector created about 224,085 m² of additional floor space in 1984. By 1988, floor space generation reached its peak at 476,335 m², coincident with the economic boom experienced in the Greater Toronto Area. Non-residential building permit activity diminished significantly during the economic downturn of the early 1990's. The low point occurred in 1993 when only 88,000 m² of additional floor space was created. The moderate economic recovery during the late 1990's and during the 2000's has spurred additional non-residential development growth, with floor space growth reaching 491,930 m² in 2003. Since 2008, the floor space growth has diminished somewhat, because of recent uncertain economic conditions. The inconsistent growth trend highlights the challenge of projecting future non-residential growth.
- Over the 2013 – 2023 period, the annual non-residential development is expected to exceed the 16 year historical average of 281,200 m² per year (Figure A-5), which is consistent with the employment forecast. Annual average floor space growth is expected to decline over the remaining forecast period. Non-residential floor space is expected to increase from approximately 225,000 m² in 2012 to approximately 615,200 m² in 2016, then fall to approximately 545,600 m² per year in 2019, and about 318,100 m² per year in 2024 (Figure A-5).
- Table A-17 provides the distribution of the anticipated employment growth by area municipality for the periods 2013 to 2018, 2018 to 2023, 2023 to 2028, 2013 to 2023 and 2013 to 2028.

- Table A-18 provides the distribution of the anticipated non-residential floor space growth by area municipality for the periods 2013 to 2018, 2018 to 2023, 2023 to 2028, 2013 to 2023 and 2013 to 2028.
- Table A-19 summarizes forecast non-residential floor space growth by year for the 2013 – 2028 period. The forecast is summarized by rural, urban, and total floor space for each major employment category. Separate forecasts are provided with and without the Seaton community.
- The information summarized in Table A-19 is used for calculating the non-residential development charge (refer to Appendices **E, F, G and H**). The Total “With Seaton Community” amounts are used for the Regional Roads and General calculations, while the Urban “Without Seaton Community” figures are used for Water Supply and Sanitary Sewerage purposes.

TABLE A-12

HISTORICAL POPULATION, EMPLOYMENT AND ACTIVITY RATES BY SECTOR (FROM CENSUS DATA) 1991 – 2006											
YEAR	POPULATION ¹	PRIMARY	WORK AT HOME	INDUSTRIAL		COMMERCIAL		INSTITUTIONAL		TOTAL	
				JOBS	ACT. RATE	JOBS	ACT. RATE	JOBS	ACT. RATE	JOBS	ACT. RATE
1991	422,970	2,125	12,635	63,615	0.150	45,695	0.108	31,410	0.074	155,480	0.368
1996	471,360	1,775	13,855	54,670	0.116	48,700	0.103	30,125	0.064	149,125	0.316
2001	526,990	1,475	16,290	59,175	0.112	62,225	0.118	34,235	0.065	173,400	0.329
2006	584,360	1,545	18,505	59,860	0.102	70,550	0.121	39,615	0.068	190,075	0.325

¹ The population figures for 1991, 1996, 2001 and 2006 include the Census undercount.
Source (Employment Data): Watson and Associates Economists Ltd., September 2012.
Does not include 'No Fixed Place of Work' employment.
All Figures are rounded.

TABLE A-13

HISTORICAL NON-RESIDENTIAL FLOOR SPACE CREATED BY SECTOR (FROM BUILDING PERMIT RECORDS), 1984 – 2011							
YEAR	INDUSTRIAL		COMMERCIAL		INSTITUTIONAL ¹		TOTAL
	(m ²)	%	(m ²)	%	(m ²)	%	(m ²)
1984	98,850	44.10%	105,775	47.20%	19,460	8.70%	224,085
1985	142,440	54.50%	100,675	38.50%	18,435	7.00%	261,550
1986	235,460	65.10%	86,755	24.00%	39,620	10.90%	361,835
1987	233,610	54.60%	134,885	31.50%	59,235	13.80%	427,730
1988	160,630	33.70%	229,460	48.20%	86,245	18.10%	476,335
1989	225,670	52.20%	128,385	29.70%	78,040	18.10%	432,095
1990	90,930	26.70%	69,160	20.30%	180,530	53.00%	340,620
1991	27,190	28.30%	26,460	27.60%	42,260	44.10%	95,910
1992	13,750	10.80%	26,530	20.80%	87,280	68.40%	127,560
1993	6,590	7.50%	44,705	50.80%	36,705	41.70%	88,000
1994	31,255	21.70%	45,480	31.60%	67,285	46.70%	144,020
1995	86,205	40.30%	64,120	30.00%	63,375	29.70%	213,700
1996	10,180	9.90%	37,880	36.70%	55,035	53.40%	103,095
1997	39,035	27.40%	66,690	46.80%	36,655	25.70%	142,380
1998	52,700	30.90%	76,440	44.80%	41,330	24.20%	170,470
1999	171,020	47.80%	90,495	25.30%	96,235	26.90%	357,750
2000	125,570	30.40%	127,860	30.90%	160,290	38.70%	413,720
2001	87,990	36.90%	47,220	19.80%	103,035	43.20%	238,245
2002	111,425	36.55%	67,715	22.20%	125,920	41.30%	305,060
2003	138,295	28.10%	166,110	33.75%	187,525	38.10%	491,930
2004	153,445	44.65%	87,550	25.50%	102,555	29.85%	343,550
2005	77,445	25.20%	118,510	38.60%	111,175	36.20%	307,130
2006	209,065	56.70%	77,310	20.95%	82,345	22.35%	368,720
2007	75,835	27.05%	94,795	33.85%	109,580	39.10%	280,210
2008	42,935	14.05%	157,555	51.60%	104,785	34.30%	305,275
2009	42,830	17.45%	90,280	36.75%	112,600	45.85%	245,710
2010	33,455	19.50%	67,425	39.30%	70,590	41.15%	171,465
2011	40,665	19.45%	75,595	36.15%	92,950	44.45%	209,210
Annual Avg. 1984 – 2011	98,730	36.15%	89,750	32.85%	84,680	31.00%	273,160

¹ "INSTITUTIONAL" combines both Institutional and Governmental sectors from building permit reports.
All Figures are rounded.

TABLE A-14

EMPLOYMENT AND NON-RESIDENTIAL FLOOR SPACE FORECASTS BY SECTOR, 2013-2028											
PERIOD	POPULATION	EMPLOYMENT						FLOOR SPACE (m ²)			
		Industrial	Commercial	Institutional	Primary	W At H	Total	Industrial	Commercial	Institutional	Total
WITH SEATON											
TOTAL											
2013	641,620	70,615	80,330	43,880	1,650	20,360	216,835	6,611,690	3,855,350	2,193,335	12,660,375
2018	708,185	93,535	93,165	48,610	1,760	22,555	259,620	8,647,415	4,437,390	2,430,245	15,515,055
2023	785,215	116,020	105,110	53,000	1,890	25,190	301,210	10,610,295	4,982,110	2,650,405	18,242,805
2028	873,905	128,320	113,305	56,575	2,030	27,720	327,950	11,652,395	5,351,690	2,829,160	19,833,240
GROWTH											
2013-18	66,565	22,920	12,835	4,730	110	2,195	42,785	2,035,730	582,040	236,910	2,854,680
2018-23	77,030	22,490	11,945	4,390	130	2,635	41,590	1,962,875	544,720	220,155	2,727,755
2023-28	88,685	12,295	8,195	3,575	140	2,530	26,740	1,042,100	369,580	178,755	1,590,435
2013-23	143,595	45,410	24,780	9,120	240	4,830	84,380	3,998,605	1,126,760	457,065	5,582,435
2013-28	232,280	57,705	32,975	12,695	380	7,365	111,115	5,040,705	1,496,340	635,820	7,172,870
WITHOUT SEATON											
TOTAL											
2013	641,290	70,615	80,330	43,880	1,650	20,360	216,835	6,611,690	3,855,350	2,193,335	12,660,375
2018	686,970	88,515	90,340	47,655	1,760	21,900	250,165	8,280,810	4,335,760	2,382,545	14,999,120
2023	744,000	105,135	99,815	50,930	1,890	23,925	281,695	9,815,395	4,791,380	2,547,005	17,153,780
2028	818,040	113,555	106,050	53,560	2,030	25,985	301,180	10,574,475	5,090,440	2,678,460	18,343,370
GROWTH											
2013-18	45,680	17,900	10,010	3,780	110	1,540	33,330	1,669,125	480,415	189,210	2,338,745
2018-23	57,030	16,620	9,475	3,275	130	2,030	31,530	1,534,585	455,620	164,455	2,154,660
2023-28	74,040	8,420	6,235	2,630	140	2,060	19,485	759,080	299,055	131,455	1,189,590
2013-23	102,710	34,520	19,480	7,050	240	3,570	64,860	3,203,710	936,035	353,665	4,493,410
2013-28	176,750	42,940	25,715	9,680	380	5,625	84,345	3,962,785	1,235,090	485,120	5,683,000

"W At H" = "Work At Home".

Numbers may not add precisely due to rounding.

Seaton employment figures have been derived from CPDP Amendment #1 which identifies a 2031 employment target for Seaton of 30,500.

TABLE A-15

DURHAM 2013-2028	SQUARE METERS FLOOR SPACE/ EMPLOYEE			
	Industrial	Commercial	Institutional	Total
With Seaton	87	45	50	69
Without Seaton	92	48	50	73

Source: Durham Region Planning and Economic Development Department.

FIGURE A-3
Region of Durham
Historical and Projected Employment

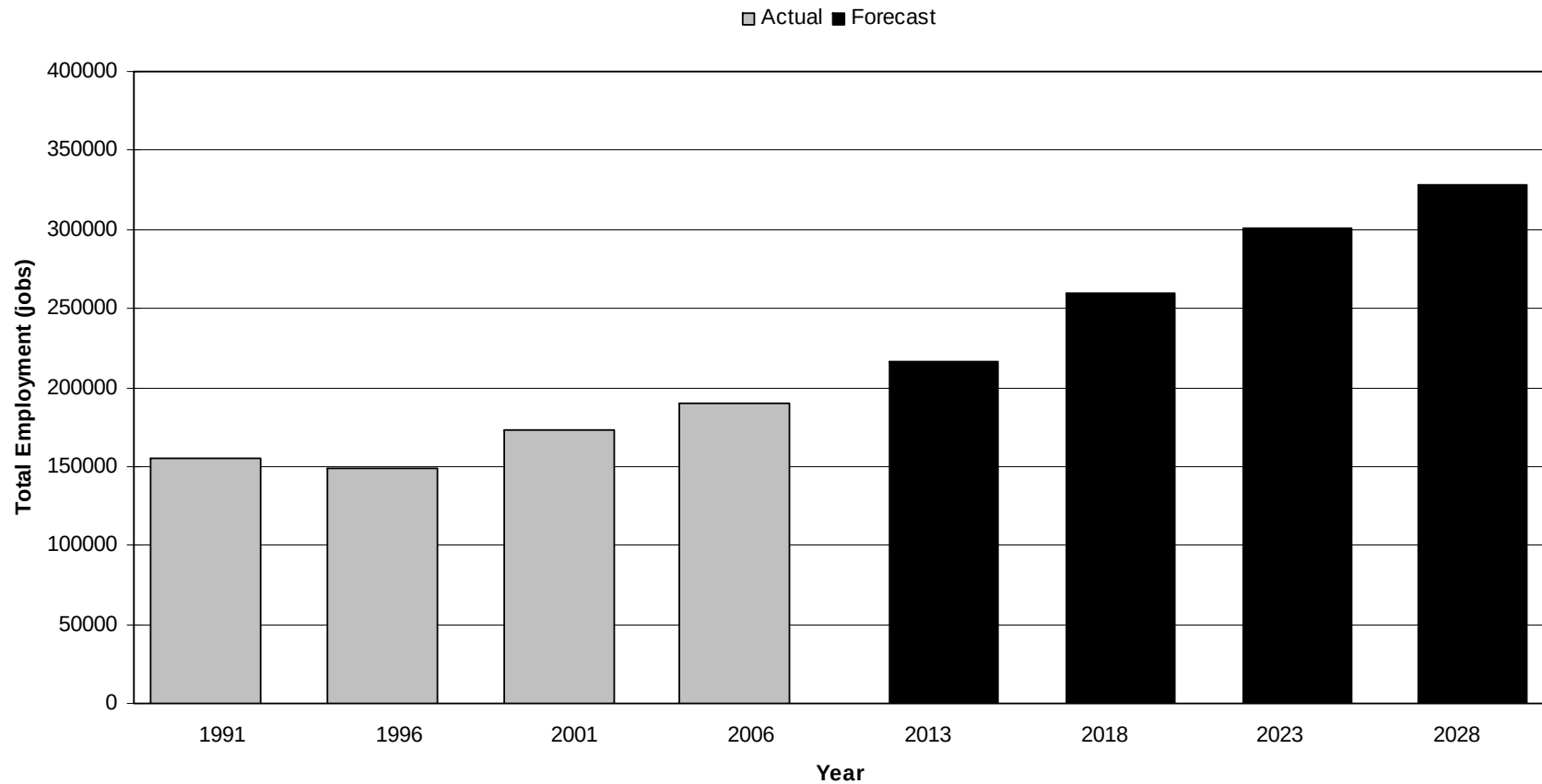


FIGURE A-4
Region of Durham
Projected Non-Residential Floor Space by Sector

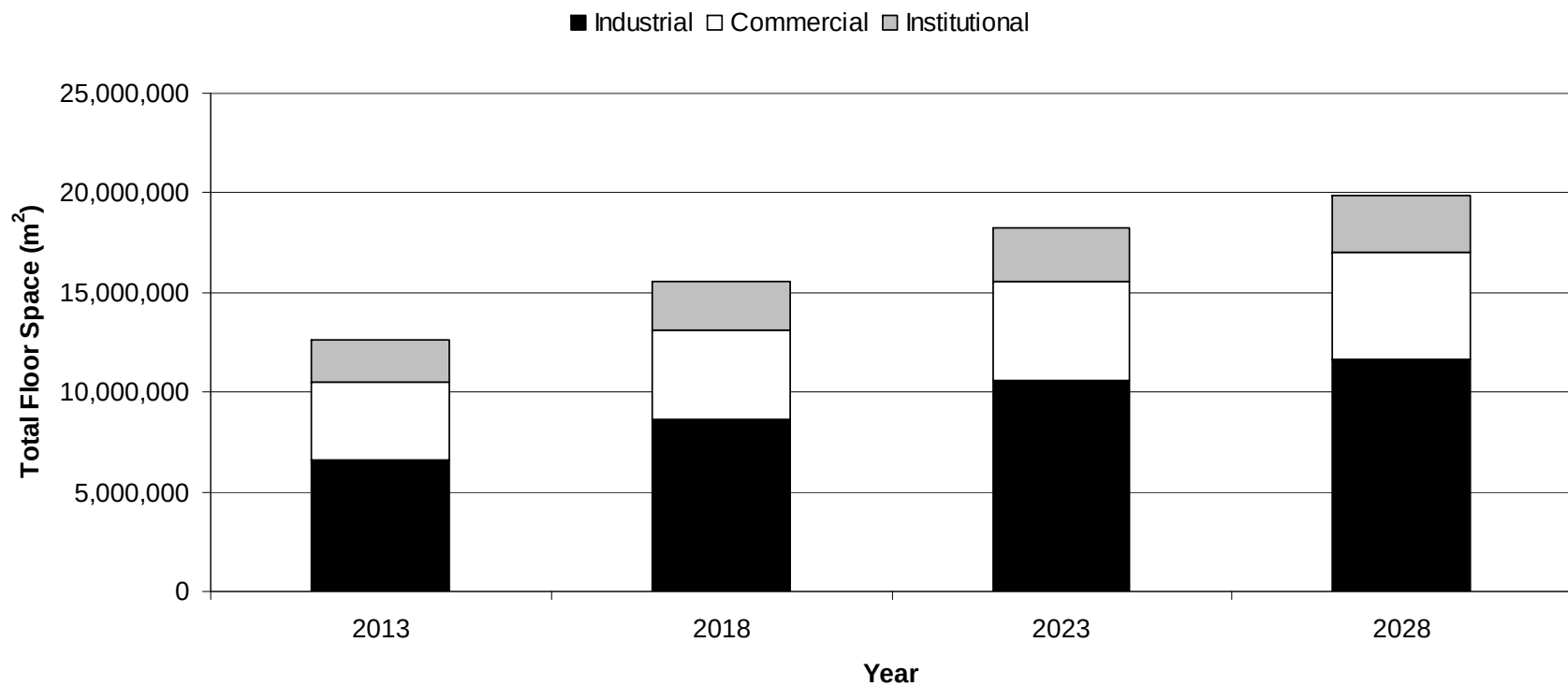


TABLE A-16

HISTORICAL URBAN AND RURAL SHARES OF NON-RESIDENTIAL FLOOR SPACE CREATED (FROM BUILDING PERMIT RECORDS), 1986 – 2011					
YEAR	URBAN		RURAL		TOTAL
	(m²)	%	(m²)	%	(m²)
1986	350,980	97%	10,855	3%	361,835
1987	414,900	97%	12,830	3%	427,730
1988	457,280	96%	19,055	4%	476,335
1989	427,775	99%	4,320	1%	432,095
1990	337,215	99%	3,405	1%	340,620
1991	84,505	88%	11,405	12%	95,910
1992	121,695	95%	5,865	5%	127,560
1993	84,740	96%	3,260	4%	88,000
1994	142,425	99%	1,595	1%	144,020
1995	210,830	99%	2,870	1%	213,700
1996	101,270	98%	1,825	2%	103,095
1997	135,975	96%	6,405	4%	142,380
1998	162,775	95%	7,695	5%	170,470
1999	342,320	96%	15,430	4%	357,750
2000	397,270	96%	16,450	4%	413,720
2001	227,665	96%	10,580	4%	238,245
2002	300,920	99%	4,135	1%	305,055
2003	461,460	94%	30,475	6%	491,935
2004	330,975	96%	12,575	4%	343,550
2005	296,375	96%	10,755	4%	307,130
2006	346,370	94%	22,345	6%	368,715
2007	257,370	92%	22,840	8%	280,210
2008	297,025	97%	8,250	3%	305,275
2009	235,410	96%	10,300	4%	245,710
2010	164,320	96%	7,150	4%	171,465
2011	207,050	99%	2,160	1%	209,210
Annual Avg. 1986 – 2011	265,265	96%	10,185	4%	275,450
Note: All Figures are rounded.					

FIGURE A-5
Region of Durham
Historical and Projected Non-Residential Floor Space Growth by Year

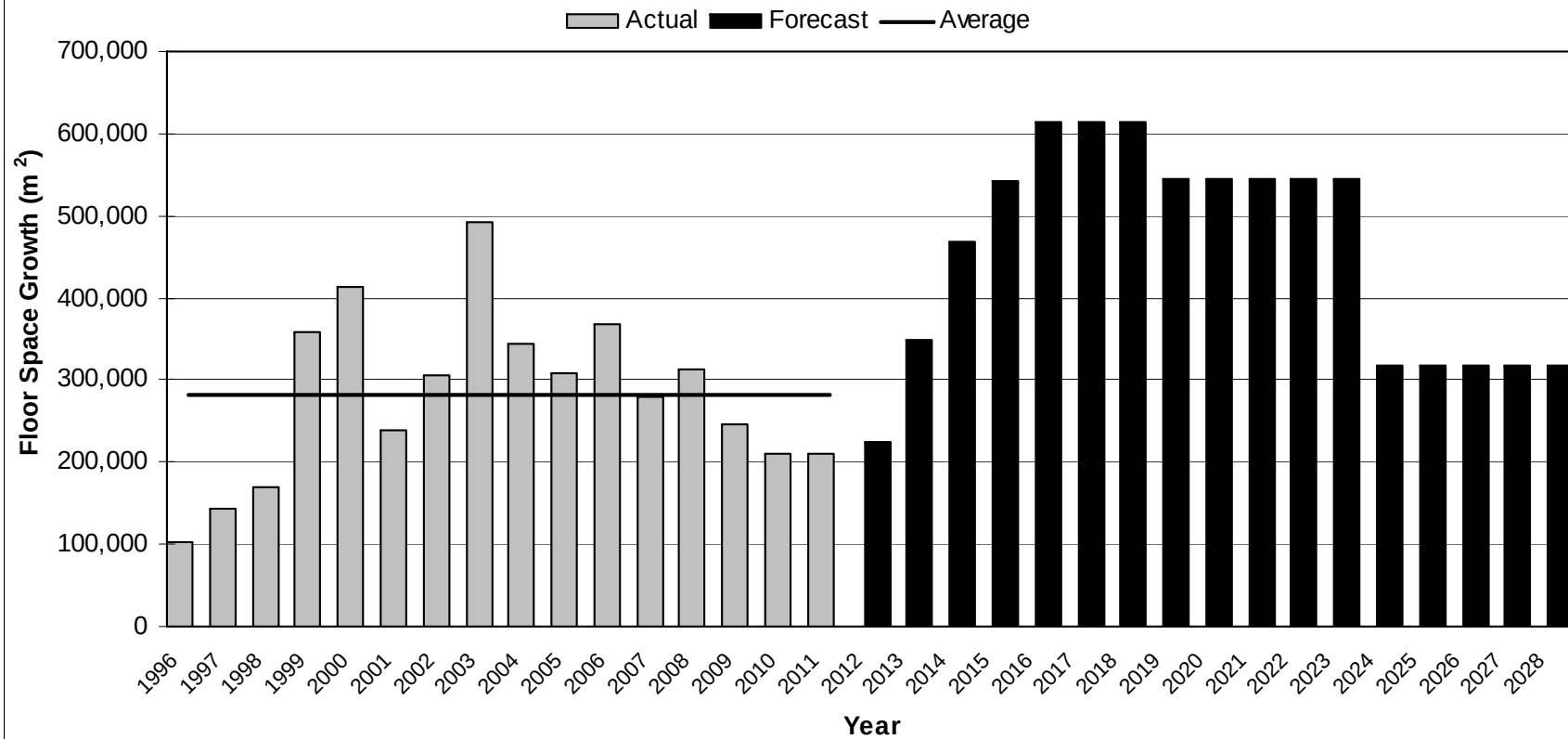


TABLE A-17

EMPLOYMENT GROWTH FORECAST BY AREA MUNICIPALITY (WITH AND WITHOUT SEATON), 2013-2028					
AREA MUNICIPALITY	2013-2018	2018-2023	2023-2028	2013-2023	2013-2028
Ajax	5,890	4,240	1,675	10,130	11,805
Brock	225	270	240	495	735
Clarington	4,240	4,750	3,740	8,995	12,735
Oshawa	7,175	6,865	3,760	14,040	17,800
Pickering	16,530	14,960	8,540	31,490	40,030
Without Seaton Community	7,075	4,900	1,285	11,975	13,260
Scugog	425	385	310	810	1,120
Uxbridge	880	880	535	1,760	2,295
Whitby	7,415	9,240	7,935	16,655	24,590
Durham	42,785	41,590	26,740	84,380	111,115
Without Seaton Community	33,330	31,530	19,485	64,860	84,345
Notes: 1. Does not include 'No Fixed Place of Work' employment. 2. Figures may not add due to rounding.					

TABLE A-18

NON-RESIDENTIAL FLOOR SPACE GROWTH FORECAST BY AREA MUNICIPALITY (WITH AND WITHOUT SEATON), 2013-2028					
AREA MUNICIPALITY	2013-2018	2018-2023	2023-2028	2013-2023	2013-2028
Ajax	365,750	266,470	101,015	632,220	733,235
Brock	15,520	18,885	15,835	34,405	50,240
Clarington	345,660	365,500	241,810	711,160	952,970
Oshawa	466,435	421,415	177,685	887,850	1,065,535
Pickering	1,082,510	972,470	509,080	2,054,980	2,564,060
Without Seaton Community	566,580	399,375	108,235	965,955	1,074,190
Scugog	32,615	24,405	16,540	57,020	73,560
Uxbridge	71,590	68,585	32,700	140,175	172,875
Whitby	474,600	590,025	495,765	1,064,625	1,560,390
Durham	2,854,680	2,727,755	1,590,435	5,582,435	7,172,870
Without Seaton Community	2,338,745	2,154,660	1,189,590	4,493,410	5,683,000
Note: Figures may not add due to rounding.					

TABLE A-19

NON-RESIDENTIAL FLOOR SPACE GROWTH FORECASTS BY SECTOR AND BY RURAL AND URBAN (WITH AND WITHOUT SEATON), 2013-2028												
TIME PERIOD	RURAL (m ²)				URBAN (m ²)				TOTAL (m ²)			
	Ind.	Com.	Ins.	Total	Ind.	Com.	Ins.	Total	Ind.	Com.	Ins.	Total
WITH SEATON COMMUNITY¹												
2013-14	10,765	720	90	11,575	323,060	95,365	37,750	456,175	333,825	96,085	37,840	467,750
2014-15	10,765	720	90	11,575	375,435	109,880	44,565	529,880	386,195	110,600	44,655	541,455
2015-16	10,765	720	90	11,575	427,805	124,400	51,380	603,585	438,570	125,120	51,470	615,160
2016-17	10,765	720	90	11,575	427,805	124,400	51,380	603,585	438,570	125,120	51,470	615,160
2017-18	10,765	720	90	11,575	427,805	124,400	51,380	603,585	438,570	125,120	51,470	615,160
2013-2018	53,820	3,600	450	57,870	1,981,910	578,440	236,460	2,796,810	2,035,730	582,040	236,910	2,854,680
2018-2023	49,960	3,935	650	54,545	1,912,920	540,785	219,505	2,673,210	1,962,875	544,720	220,155	2,727,755
2023-2028	18,835	3,070	400	22,310	1,023,260	366,510	178,355	1,568,125	1,042,100	369,580	178,755	1,590,435
2013-2023	103,780	7,535	1,100	112,415	3,894,830	1,119,225	455,965	5,470,020	3,998,605	1,126,760	457,065	5,582,435
2013-2028	122,615	10,610	1,500	134,725	4,918,090	1,485,735	634,320	7,038,145	5,040,705	1,496,340	635,820	7,172,870
WITHOUT SEATON COMMUNITY²												
2013-14	10,765	720	90	11,575	323,060	95,365	37,750	456,175	333,825	96,085	37,840	467,750
2014-15	10,765	720	90	11,575	323,060	95,365	37,750	456,175	333,825	96,085	37,840	467,750
2015-16	10,765	720	90	11,575	323,060	95,365	37,750	456,175	333,825	96,085	37,840	467,750
2016-17	10,765	720	90	11,575	323,060	95,365	37,750	456,175	333,825	96,085	37,840	467,750
2017-18	10,765	720	90	11,575	323,060	95,365	37,750	456,175	333,825	96,085	37,840	467,750
2013-2018	53,820	3,600	450	57,870	1,615,305	476,815	188,760	2,280,875	1,669,125	480,415	189,210	2,338,745
2018-2023	49,960	3,935	650	54,545	1,484,625	451,685	163,805	2,100,115	1,534,585	455,620	164,455	2,154,660
2023-2028	18,835	3,070	400	22,310	740,240	295,985	131,055	1,167,280	759,080	299,055	131,455	1,189,590
2013-2023	103,780	7,535	1,100	112,415	3,099,930	928,495	352,565	4,380,995	3,203,710	936,035	353,665	4,493,410
2013-2028	122,615	10,610	1,500	134,725	3,840,170	1,224,480	483,620	5,548,275	3,962,785	1,235,090	485,120	5,683,000

¹ "TOTAL WITH SEATON COMMUNITY" used for Regional Roads and Soft Services rate calculations.

² "URBAN WITHOUT SEATON COMMUNITY" used for Water Supply and Sanitary Sewerage rate calculation purposes.

"Ind." = "Industrial"; "Com" = "Commercial"; "Ins" = "Institutional".

Figures may not add precisely due to rounding.

APPENDIX B

REGION SHARE POLICY FOR RESIDENTIAL DEVELOPMENT

APPENDIX B - REGION SHARE POLICY

1.0 INTRODUCTION

The purpose of this policy paper is to examine Regional policy of cost sharing with developers for the construction of sanitary sewers, watermains and Regional roads in conjunction with residential development and to recommend appropriate modifications to the policy.

2.0 APPLICABILITY

This policy is intended to be applicable to **all residential development for the areas specified in this by-law**, whether the development proceeds by plan of subdivision, consent or issuance of a building permit.

3.0 DEVELOPMENT CHARGES ACT

The Development Charges Act, 1997, states that:

“ss.59(1) a municipality shall not, by way of a condition or agreement under section 51 or 53 of the *Planning Act*, impose directly or indirectly a charge related to a development or a requirement to construct a service related to development except as allowed in subsection (2).

(2) a condition or agreement referred to in subsection (1) may provide for:

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

The term "local services" is not specifically defined in the DCA, 1997 or the associated regulations.

The existing Region's share policy is consistent with the requirements referenced above.

3.1 Definition of "Local Service"

For the purposes of Region's share, "Local Service" may be defined as the components of the sanitary sewerage system, water supply system or Regional road system which conform to Regional design guidelines and are of the minimum size required to provide service to the proposed development in its entirety.

4.0 CURRENT POLICY

4.1 General Philosophy

There is a range of significantly different approaches which can be taken under the DCA, 1997 with respect to the provision of municipal services.

One end of the range is to use the Front-ending provisions of the Act or the equivalent and have willing developers pay the full cost of necessary infrastructure with eventual collection and reimbursement by the municipality from other benefiting, but not contributing, landowners. This approach works relatively well in municipalities with only a few developers controlling large areas of land and a housing market that can support large scale land development. The developers have control over the cost and timing of servicing and the municipality does not have to provide major capital funding and assume the associated risk that developers will not proceed in a timely fashion.

At the opposite end of the range of approaches is for the municipality to partner with developers and provide major infrastructure through its capital budget. Infrastructure (beyond local services) constructed by developers, under this approach, is limited and eligible for either a credit against development charges or a cash rebate from the municipality. This is a workable approach in municipalities with a multitude of developers controlling relatively small and fragmented parcels of property. It also results in more competition among developers, which should result in lower consumer costs, and allows development to proceed in a slower housing market.

Elements of the developer's capital requirements and risk are reduced, or rather, shifted to the municipality.

Due to the fragmented land ownership and the multitude of developers in much of Durham Region, the Region has traditionally tended toward the second approach to the provision of infrastructure. This has allowed the Region to maintain growth and a comparatively affordable housing product in a relatively slow growth market (compared to the overall Greater Toronto Area). The existing Region Share policy has been crafted in accordance with this philosophy and has worked well within the economic and market realities faced by Durham Region.

4.2 Existing Regional Policy, Established 1991, Amended 1993, 1999 and 2003

The current Region Share policy covers all Regional "hard" services, consisting of sanitary sewers, watermains and Regional roads, constructed in conjunction with residential development. The Policy came into effect in November 1991 and has been subsequently amended in 1993, 1999 and 2003 by Regional Council. The original policy provided for the Region to pay for oversizing of services internal to the subdivision and all works external to the subdivision.

The policy was amended, by Council, in May 1993, to recognize the special case of abutting services and to require developers to pay for 50% of the minimum size of abutting services. The policy was amended further by Council, in July 1999, to address oversizing for non-sequential development and allow developers to claim a cost recovery prior to 100% payment of their development charges. In August 2003, the policy was amended to reduce the Region's share for external services for sequential development from the full cost of the works to the oversizing cost only, similar to the Region's share for non-sequential development. There were no changes in the 2008 DC Study.

The current Region Share policy is as follows:

Category of Service	Source of Financing	
	Developer	Region
Sequential External Works	Min. Size	Oversizing Share
Non-Sequential External Works	Min. Size	Oversizing Share
Internal Works	Min. Size	Oversizing Share
Abutting Works	50% of Min. Size	Remainder

The definitions of the service categories may be found in Attachment No. 1.

4.3 Sequentiality

Sequentiality is defined as "something which follows something else, or something which occurs in a chronological order of events". In the context of subdivision development, it can be defined as the next subdivision which may proceed geographically and for which all necessary external infrastructure is in place.

In order for a development to be defined as sequential, the following criteria must be satisfied:

- Adequate Water Pollution Control Plant capacity;
- Adequate Water Supply Plant capacity;
- Trunk sewers available;
- Feeder mains available;
- Sanitary Sewerage Pumping stations available;
- Water booster pumping station available;
- Reservoir storage available;
- The development must be the next, closest, geographic extension of service to allow residential development (extension of services over open spaces or other non-developable lands may be permitted depending on the site location).

For services to be "available," they must exist, be committed in a Council approved tender award, or be contained within an executed servicing agreement (backed by 100% performance guarantees).

Development which does not fit the above criteria is non-sequential.

Regional staff is currently authorized to arrange up to \$500,000 in Regional financing for sequential development and up to \$100,000 in Regional financing for non-sequential development. For larger amounts, Council authorization is required.

4.4 Oversizing/external/abutting Services

The Region cost shares (with funding largely from development charge revenue) the portion of those services which are sized or located so as to benefit lands beyond the proposed development. These include: services which are oversized beyond the minimum size required by the development or the minimum size permitted by the Regional Design Guidelines, whichever is larger; services which are external to, or not required by the development; and services which abut the development and provide direct service to adjacent lands.

The developer funds the minimum size of services required for the subject development, or the Regional Design Guideline minimum size, whichever is larger, in the case of internal or external oversizing. The developer funds one half of the cost of the minimum size, or the Regional Design Guideline minimum size of services, in the case of abutting services of direct benefit to adjacent lands. The Region bears the remainder of the cost (one half of the cost of the minimum size plus oversizing).

The Region eventually receives reimbursement through the collection of frontage charges as the adjacent lands develop.

No compensation is given to a developer for any extra cost incurred due to increased depth of service which is necessary to accommodate lands beyond the proposed development.

4.5 Projected Value of Region Share

The estimated financial impact on the development charge quantum using current policy and based on projections of sanitary sewer, watermain and road construction required to support the residential activity in the next 15 year period, is:

<u>Average Cost Per</u> <u>Single Detached Equivalent Unit (\$2013)</u>	
Sanitary Sewers	\$268
Water Supply	313
Regional Roads	<u>36</u>
TOTAL	<u>\$617</u>

4.6 Timing of Payment

Currently, the payment of Region's share is made once the following are satisfied:

- a) All required works have been completed and received Regional approval, as evidenced by a Completion Acceptance Certificate; and
- b) The required documentation in a form satisfactory to the Region has been submitted.

The required documentation consists of:

- an invoice with actual cost backup data; and
- a Statutory Declaration satisfactory to the Region.

Documentation should normally be filed with the Region shortly after completion of construction.

4.7 Form of Payment

The Region's share can be paid in the form of Development Charge credits or cash.

Under the current extended timeframe for the payment of Region's share, credits are popular with developers as they effectively speed up repayment to the developer, who receives recovery upon obtaining building permits. Unfortunately, the Region usually cannot quantify the amount of the credit until i) the works are completed, ii) the contractor has submitted the final invoice and iii) the developer has invoiced the Region for their share.

For this reason, payment of the Region's share by cash is preferred once the conditions in the agreement have been satisfied and a satisfactory invoice from the developer has been received.

5.0 PROPOSED POLICY

There are no recommended changes to the Region's Cost Sharing Policy as described below.

5.1 External Services – Non-Sequential

Under the current policy, where the development is considered to be non-sequential, the developer pays for the minimum size of external sanitary sewers and watermain and the Region pays for oversizing. It is proposed that this policy remain in effect.

5.2 External Services - Sequential

Under the current policy the Development Charge By-law requires the developer to pay for the minimum size of external sanitary sewers and watermain and the Region to pay only for over sizing. For an external service which is not required to service the subdivision, the Region shall pay 100 percent of the cost, subject to the availability of financing as approved by Regional Council. It is proposed that this policy remain in effect.

5.3 Regional Roads and Storm Drainage

Under the current policy, the developer pays for Regional road improvements required to access a development and for the minimum size of Regional storm drainage works required to service a development.

The Region's cost sharing policy for Roads mainly consists of paying for Regional road improvements over and above the cost of those required for the development and for the oversizing of Regional storm sewers. The Region also pays for its share of any non-Regional storm drainage works that are oversized to convey or treat runoff from Regional roads.

5.4 Remaining Services

The current cost sharing policy with respect to internal and abutting services is a mechanism for equitably distributing the costs of network benefits over all other developments within the network. No revisions are proposed for these components of the policy.

5.5 Summary

The Region's share policy is proposed to remain unchanged as follows:

Category Service	Source of Financing	
	Developer	Region
Sequential External Works	Min. size	Oversizing
Non-Sequential External Works	Min. Size	Oversizing
Internal Works	Min. Size	Oversizing
Abutting Works	50% of Min. Size	Remainder

Examples of the above are illustrated in Attachment No. 2.

6.0 FINANCIAL IMPACT

With no changes to the Region's current cost sharing policy, the estimated financial impact on the development charge quantum based on projections of sanitary sewer, watermain and road construction required to support the residential activity in the next 15 year period, is:

<u>Average Cost Per</u> <u>Single Detached Equivalent Unit (\$2013)</u>	
Sanitary Sewers	\$268
Water Supply	313
Regional Roads	36
TOTAL	<u>\$617</u>

7.0 FINANCING OF REGION SHARE PAYMENTS TO DEVELOPERS

The construction of municipal sewer, watermain and road services in conjunction with new residential development also provides capacity for new non-residential development and occasionally for existing residential or non-residential development.

The new residential development component of the rebate to the developer is funded from the Residential Development Charge Fund. A share is also recovered from Non-residential Development Charges (Commercial, Institutional and Industrial). Any shortfall in the Non-residential Development Charge funding is financed from User Revenue for Water Supply and Sanitary Sewerage systems and Property Taxes for Regional Roads.

Historically during years 2008 to 2012, the financing of the Region Share Payments to developers has been as follows:

<u>Service</u>	<u>Residential Development Charge Reserve Fund</u>	<u>Commercial Development Charge Reserve Fund</u>	<u>Property Tax/ User Revenue ⁽¹⁾</u>
Water Supply	90.90%	3.20%	5.90%
Sanitary Sewerage	73.00%	8.60%	18.40%
Regional Roads	61.00%	20.00%	19.00%

(1) Due to the funding shortfalls with the institutional and industrial non-residential development charge shares

During the review of the Development Charges study, an updated analysis has been undertaken with respect to determining the percentage allocation attributable between the Regional Development Charge Reserve Funds.

The proposed attribution of financing is based on historic and projected data and is summarized in the Capital Cost Summary Tables as explained in Appendix E, F and G of the Development Charges Background Study.

8.0 RECOMMENDATIONS

It is recommended that where applicable, the Region continue to cost share in the oversizing of infrastructure required for future residential development and that no changes to the Region's Cost Sharing Policy be made.

Attachments

Attachment No.1 – Cost Sharing Policy for Regional Services

Attachment No.2 – Illustration of Region's Share Calculation for Sewer and Water

ATTACHMENT NO. 1

COST SHARING POLICY FOR REGIONAL SERVICES

SCHEDULE H

TO SUBDIVISION AGREEMENT dated the _____ day of _____

B E T W E E N:

-and-

THE REGIONAL MUNICIPALITY OF DURHAM

-and-

COST SHARING POLICY FOR REGIONAL SERVICES

A. DEFINITION OF TERMS

- | | | |
|------------------|---|--|
| Abutting service | - | shall include a service either existing or proposed, that is either located on a road allowance outside the limit of a subdivision but abuts the subdivision or located on a road allowance within the limit of a subdivision but abuts other lands outside the subdivision. |
| Cost | - | for an existing service, shall be the current cost, as determined by the Region, of constructing the service. |
| | - | for a proposed service, shall be the final cost of designing and constructing the service, as determined by the Region, after the construction is complete. |
| External service | - | shall include a service, either existing or proposed, that is located outside the limit of a subdivision but shall not include abutting service. |
| Internal service | - | shall include a service, either existing or proposed, that is located within the limit of a subdivision but shall not include an abutting service. |

Minimum size	-	shall be the size of a service of sufficient size, as determined by the Region, to service a subdivision provided that the minimum size shall not be less than a two lane urban cross section road for regional roads, 200 millimetres in diameter for sanitary sewers, 100 millimetres in diameter for sanitary sewer connections, 300 millimetres in diameter for storm sewers, 150 millimetres in diameter for storm sewer connections, 150 millimetres in diameter for watermains and 19 millimetres in diameter for water connections.
Regional road	-	shall be a road and related appurtenances that form part of the road system under the jurisdiction and control of the Regional Municipality of Durham and designed in accordance with Regional standards.
Regional road connection	-	shall be that portion of a road and related appurtenances designed in accordance with Regional standards that provide direct access from the travelled portion of the regional road to a road under or planned to be under the jurisdiction of a lower-tier municipality or to a private driveway issued in accordance with the Region's Entranceway policy and by-law.
Sanitary sewer	-	shall refer to a sanitary sewer system and related appurtenances designed in accordance with regional standards.
Sanitary sewer connection	-	shall refer to a sanitary sewer service connection and related appurtenances designed in accordance with regional standards.
Sequential development	-	the next development which may proceed geographically for which all necessary external regional service infrastructure is in place.
Service	-	shall be a sanitary sewer, sanitary sewer connection, storm sewer, storm sewer connection, watermain or water connection.

Shared stormwater management facility

- shall refer to the portion of a storm sewer system, such as a storm water detention or retention pond, and related appurtenances that accommodates storm water drainage from a Regional Road, and may be shared with other benefiting users.

Storm sewer

- shall refer to a storm sewer system including catchbasins, connections, outfalls, inlets and related appurtenances under the jurisdiction and control of the Regional Municipality of Durham and designed in accordance with regional standards.

Storm sewer connection

- shall refer to a storm sewer service connection and related appurtenances under the jurisdiction and control of the Regional Municipality of Durham and designed in accordance with regional standards.

Subdivision

- shall mean the draft plan of subdivision approved, in accordance with the Planning Act, by the Regional Municipality of Durham, the Ministry of Housing or the Ontario Municipal Board subject to the conditions set out in Schedule C of this Agreement.

Water connection

- shall refer to a water service connection and related appurtenances designed in accordance with regional standards.

Watermain

- shall refer to a watermain system and related appurtenances designed in accordance with regional standards.

B. **POLICY**

1. **Sanitary Sewer, Storm Sewer and Watermain**

(a) **Internal service**

The cost of an internal service shall be shared between the Region and the Subdivider on the following basis:

- (i) For an internal service, which is not required to service the subdivision, the Region shall pay for 100 percent of the cost.
- (ii) For an internal service, which is required to service the subdivision, the Subdivider shall pay for 100 percent of the cost for the minimum size required to service the subdivision and the Region shall pay for the balance of the cost.

(b) Abutting service

The cost of an abutting service shall be shared between the Region and the Subdivider on the following basis:

- (i) For an abutting service, which is not required to service the subdivision, the Region shall pay for 100 percent of the cost.
- (ii) For an abutting service which is required to service the subdivision as well as other lands which are located outside the limit of the subdivision and abut the service, the Subdivider shall pay 50 percent of the cost for the minimum size required to service the subdivision and the Region shall pay for the balance of the cost.
- (iii) For an abutting service, which is required to service the subdivision, but will not service other lands which are located outside the limit of the subdivision and abut the service, the Subdivider shall pay for 100 percent of the cost for the minimum size required to service the subdivision and the Region shall pay for the balance of the cost.

(c) External service

The cost of an external service shall be shared between the Region and the Subdivider on the following basis:

- (i) For an external service, which is required to service the subdivision, the Subdivider shall pay 100 percent of the cost for the minimum size required to service the subdivision and the Region shall pay for the balance of the cost.
- (ii) For an external service, which is not required to service the subdivision, the Region shall pay for 100 percent of the cost.

2. **Sanitary Sewer Connection, Storm Sewer Connection and Water Connection**

The cost of sanitary sewer connections, storm sewer connections and/or water connections shall be shared between the Region and the Subdivider on the following basis:

- (a) **For lands within the subdivision**
The Subdivider's cost of sanitary sewer connections, storm sewer connections and/or water connections shall be the total cost of the connections to each lot, block or building site within the subdivision.
- (b) **For lands external to the subdivision**
The cost of sanitary sewer connections, storm sewer connections and/or water connections to lands external to the subdivision shall be 100 percent paid for by the Region.

3. **Regional Road Connection**

The cost of a regional road connection shall be shared between the Region and the Subdivider on the following basis:

- (a) The cost of Regional road improvements over and above the cost of those required for the development shall be 100 percent paid for by the Region.
- (b) All other costs necessary to provide safe and efficient access and egress to the subdivision, including, but not limited to, costs for turning lanes, tapers and traffic control measures, shall be 100 percent paid for by the Subdivider.

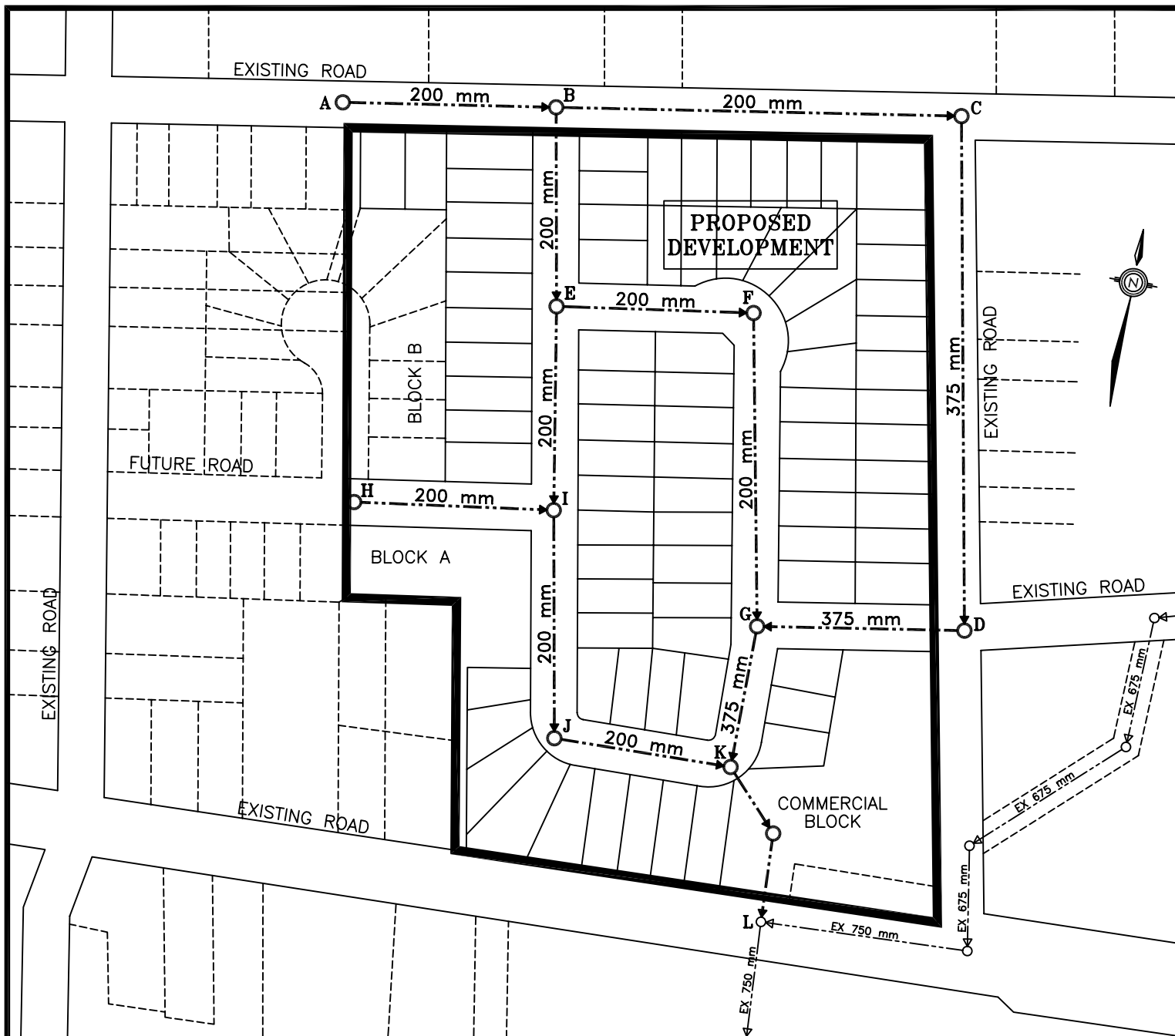
4. **Shared Stormwater Management Facility**

The cost of a shared stormwater management facility shall be shared between the Region and the Subdivider on the following basis:

- (a) The Subdivider shall pay for 100 percent of the cost of the minimum size required to service the subdivision and other contributing lands owned by the Subdivider.
- (b) The oversizing cost shall be attributed to other contributing parties, including the Region, based on each party's contributing area multiplied by runoff coefficient.
- (c) The Region shall pay for its share of the oversizing cost based on the Region's contributing area multiplied by runoff coefficient.

ATTACHMENT NO. 2

ILLUSTRATION OF REGION SHARE CALCULATION FOR SEWER AND WATER



COST SHARING			
SECTION	SIZE	DEVELOPER'S SHARE	REGION'S SHARE
A-B, B-C	200 mm	50 %	50 %
C-D	375 mm	50% OF MINIMUM SIZE	BALANCE
D-G, G-K, K-L	375 mm	100% OF MINIMUM SIZE	BALANCE
OTHERS	200 mm	100 %	--

Note: EXTERNAL AND ABUTTING INFRASTRUCTURE FINANCED BY THE REGION OF DURHAM WILL BE SUBJECT TO COLLECTIONS FROM FUTURE BENEFITTING DEVELOPMENT OR LANDOWNERS.



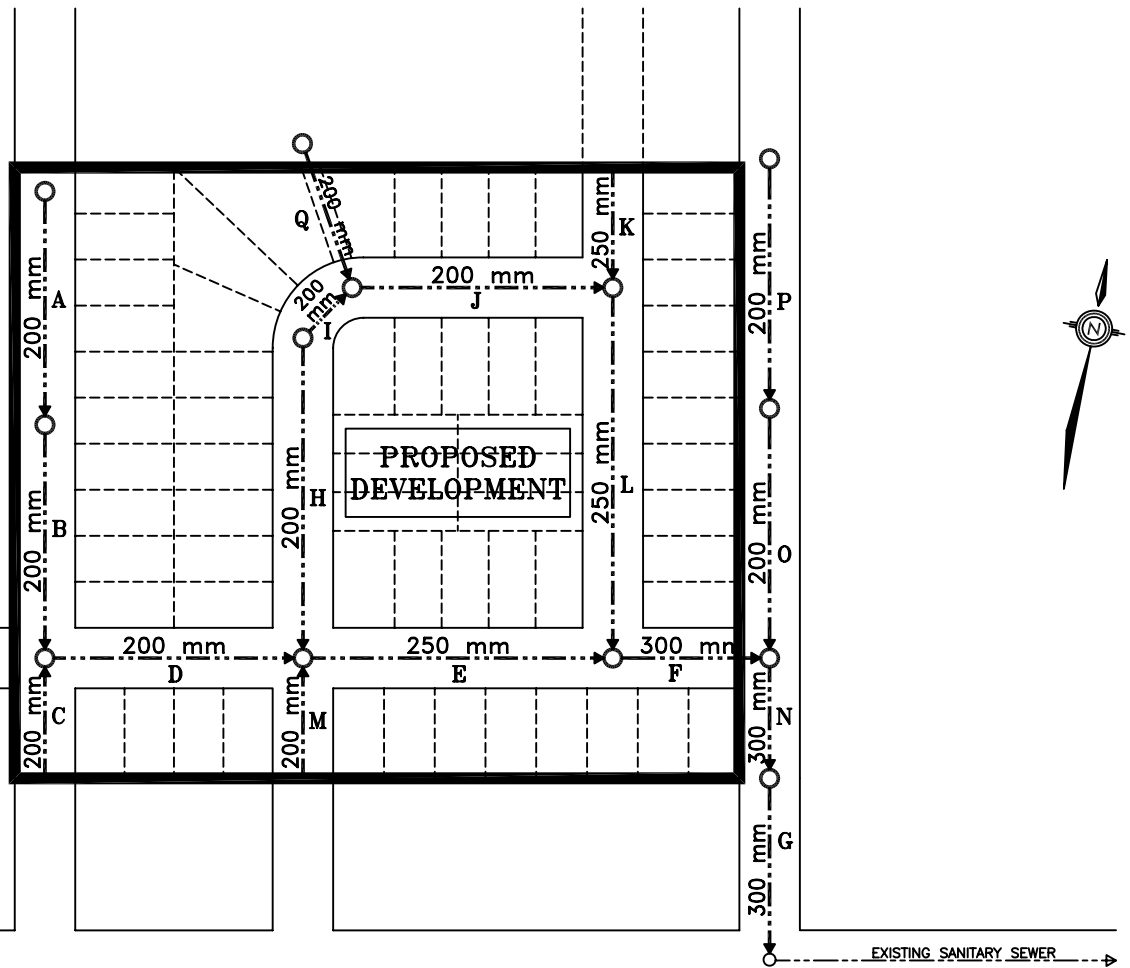
LEGEND

EX 750 mm EXISTING SANITARY SEWER
 200 mm REQUIRED SANITARY SEWER

50 25 0 20 40 60 80 100 Metres

May 5, 2003

TYPICAL EXAMPLE
COST SHARING
SANITARY SEWER SERVICING
Attachment No. 2 – Page 1



COST SHARING

SECTION	SIZE	DEVELOPER'S SHARE	REGION'S SHARE	SECTION	SIZE	DEVELOPER'S SHARE	REGION'S SHARE
A	200 mm	50% OF MINIMUM SIZE	50 %	J	200 mm	100 %	--
B	200 mm	50% OF MINIMUM SIZE	BALANCE	K	250 mm	100% OF MINIMUM SIZE	BALANCE
C	200 mm	--	100%	L	250 mm	100% OF MINIMUM SIZE	BALANCE
D	200 mm	100 %	--	M	200 mm	--	100 %
E	250 mm	100% OF MINIMUM SIZE	BALANCE	N	300 mm	50% OF MINIMUM SIZE	BALANCE
F	300 mm	100% OF MINIMUM SIZE	BALANCE	O	200 mm	--	100 %
G	300 mm	100% OF MINIMUM SIZE	BALANCE	P	200 mm	--	100 %
H	200 mm	100 %	--	Q	200 mm	--	100 %
I	200 mm	100 %	--				

Note: EXTERNAL AND ABUTTING INFRASTRUCTURE FINANCED BY THE REGION OF DURHAM WILL BE SUBJECT TO COLLECTIONS FROM FUTURE BENEFITTING DEVELOPMENT OR LANDOWNERS.

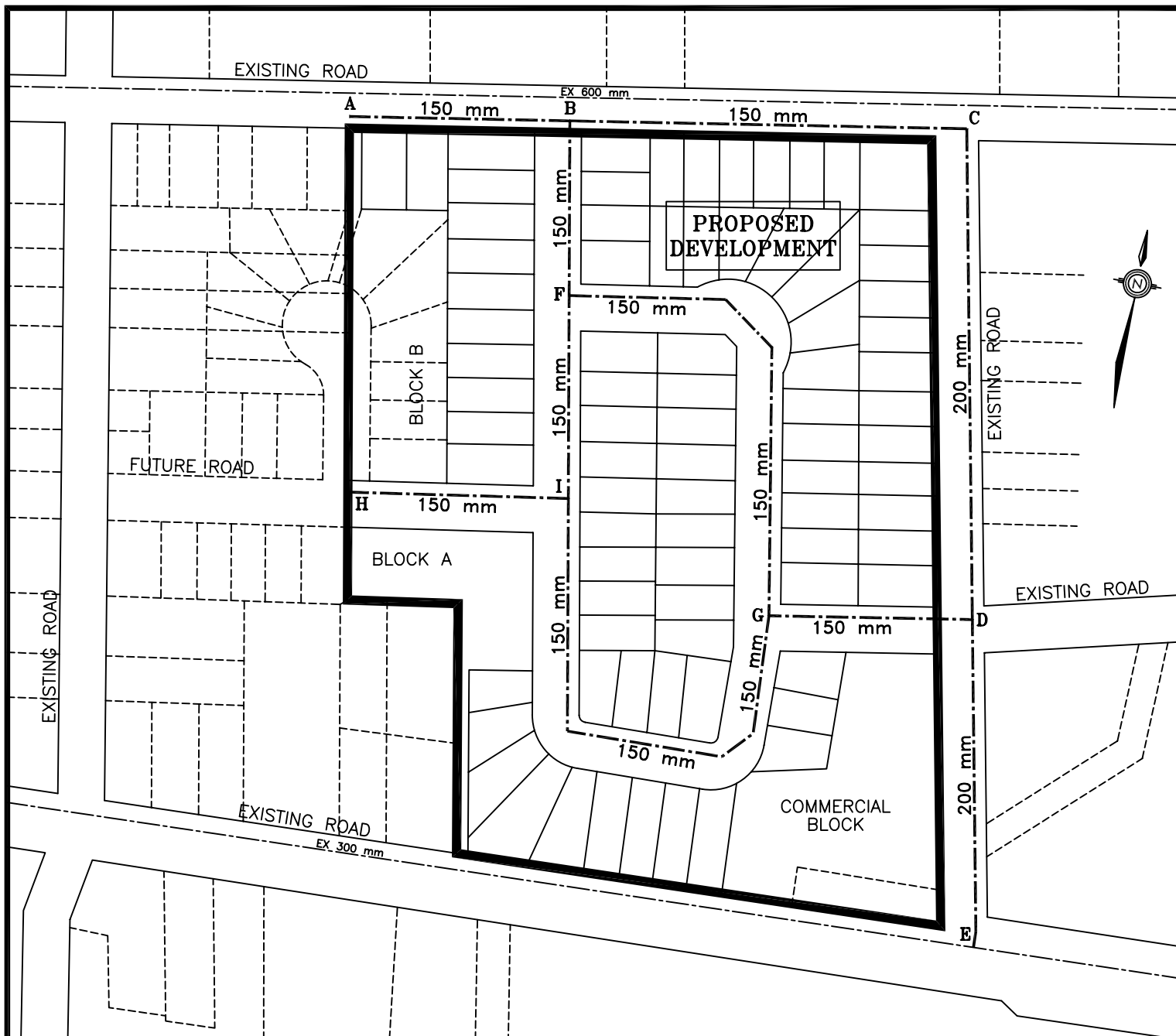


LEGEND

EX. 750 mm EXISTING SANITARY SEWER
 200 mm REQUIRED SANITARY SEWER

May 5, 2003

SCHEMATIC
 COST SHARING
 SANITARY SEWER SERVICING
 Attachment No. 2 – Page 2



COST SHARING			
SECTION	SIZE	DEVELOPER'S SHARE	REGION'S SHARE
A-B, B-C	150 mm	50 %	50 %
C-D	200 mm	50% OF MINIMUM SIZE	BALANCE
D-E	200 mm	100 %	--
OTHERS	150 mm	100 %	--

Note: EXTERNAL AND ABUTTING INFRASTRUCTURE FINANCED BY THE REGION OF DURHAM WILL BE SUBJECT TO COLLECTIONS FROM FUTURE BENEFITTING DEVELOPMENT OR LANDOWNERS.



LEGEND

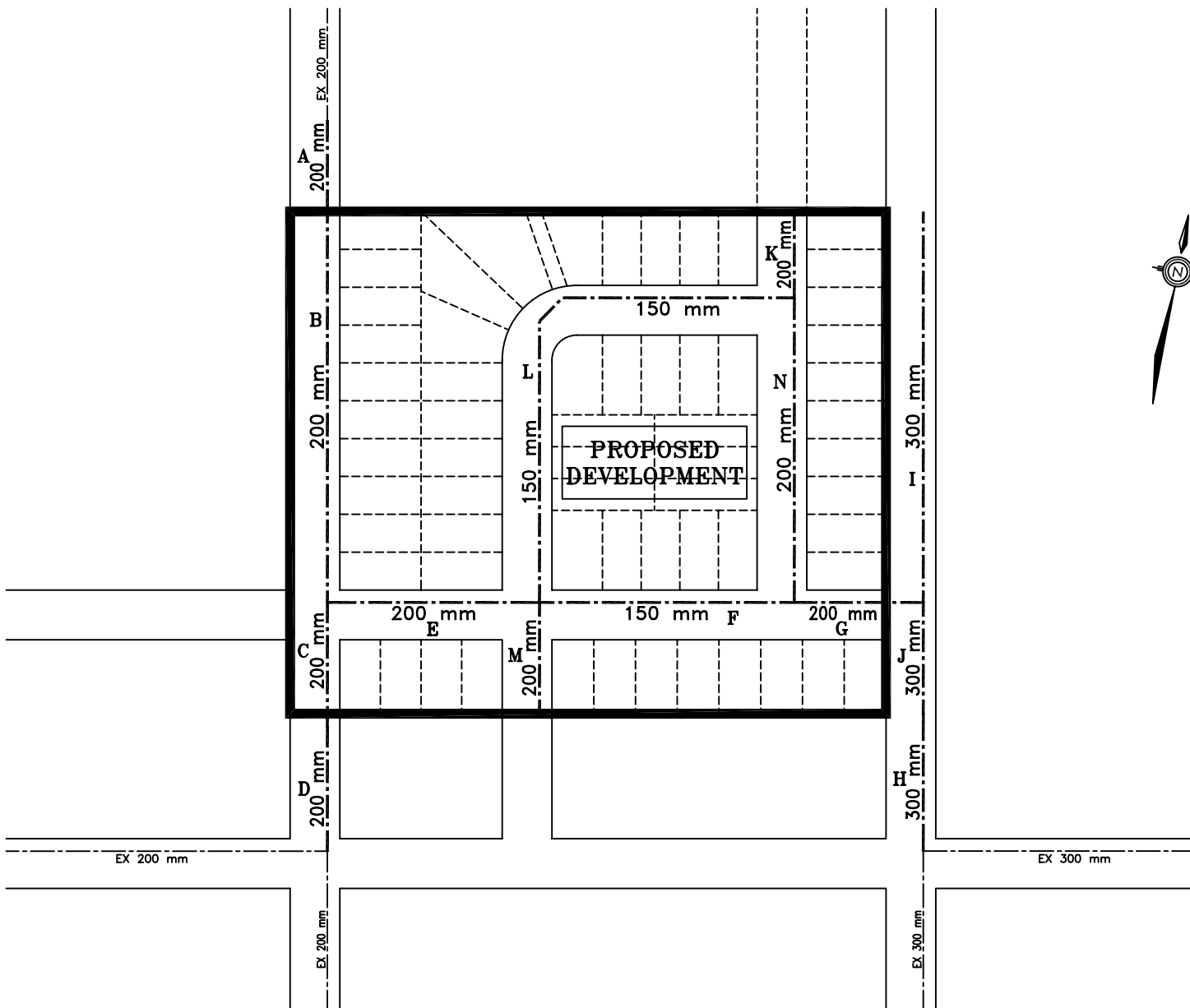
EX 200 mm EXISTING WATERMAIN

200 mm
K
REQUIRED WATERMAIN

50 25 0 20 40 60 80 100 Metres

May 5, 2003

TYPICAL EXAMPLE
COST SHARING
WATER SUPPLY SERVICING
Attachment No. 2 – Page 3



COST SHARING

SECTION	SIZE	DEVELOPER'S SHARE	REGION'S SHARE	SECTION	SIZE	DEVELOPER'S SHARE	REGION'S SHARE
A	200 mm	100% OF MINIMUM SIZE	BALANCE	H	300 mm	100% OF MINIMUM SIZE	BALANCE
B	200 mm	50% OF MINIMUM SIZE	BALANCE	I	300 mm	--	100 %
C	200 mm	50% OF MINIMUM SIZE	BALANCE	J	300 mm	50% OF MINIMUM SIZE	BALANCE
D	200 mm	100% OF MINIMUM SIZE	BALANCE	K	200 mm	100% OF MINIMUM SIZE	BALANCE
E	200 mm	100% OF MINIMUM SIZE	BALANCE	L	150 mm	100 %	--
F	150 mm	100 %	--	M	200 mm	--	100 %
G	200 mm	100% OF MINIMUM SIZE	BALANCE	N	200 mm	100% OF MINIMUM SIZE	BALANCE

Note: EXTERNAL AND ABUTTING INFRASTRUCTURE FINANCED BY THE REGION OF DURHAM WILL BE SUBJECT TO COLLECTIONS FROM FUTURE BENEFITTING DEVELOPMENT OR LANDOWNERS.



LEGEND

EX 200 mm EXISTING WATERMAIN
 200 mm K REQUIRED WATERMAIN

May 5, 2003

SCHEMATIC
 COST SHARING
 WATER SUPPLY SERVICING
 Attachment No. 2 – Page 4

APPENDIX C

REGIONAL WELL INTERFERENCE POLICY

APPENDIX C - REGIONAL WELL INTERFERENCE POLICY

1.0 Introduction

The purpose of this policy paper is to examine the existing Regional Well Interference Policy and make any recommendations deemed appropriate.

The existing Regional Well Interference Policy provides relief to residents in situations where their private well has potentially been negatively impacted by the construction of Regional services. The current policy has been Regional practice since 1999. Similar practices existed, in various forms, prior to 1999.

The existing Regional Well Interference Policy uses Development Charge revenue to:

- provide a temporary supply of water during construction of Regional Services to the affected homeowner; and
- construct watermains and water services to homes (i.e. to the front line of homes) that have been or will potentially be negatively impacted (work on private property at homeowner's expense).

These costs are included in the Development Charge Study and are funded 100% from water development charges.

2.0 Current Policy

In general, the current policy can be described under four (4) subheadings. These are; during construction, post construction, future redevelopment of the lands, and other matters.

2.1 Well Interference Provisions During Construction of Regional Services

- a) A Temporary Supply of Water will be provided to an Affected Party at no cost during the construction period where there is a direct impact on the existing private well supply. This often takes the form of water deliveries and temporary above ground tanks. In order to invoke this aspect of the Policy, there needs to be some evidence of an actual impact related to the construction of Regional services as determined by Regional staff, such as:
 - Lowering of the water level in the well beyond a usable level; and/or
 - Negative impact on the quality of the water.

2.2 Well Interference Provisions Post Construction of Regional Services

- b) When Regional services are constructed, water services will be extended to adjacent properties that have private wells which potentially could be negatively impacted by construction (must be within or abutting the urban boundary).
- c) Once the watermain and water service is constructed to the property line, the temporary water supply is removed and the affected homeowner is given the choice to connect to the Regional service. This offer never expires.
- d) The normal Regional frontage charges and connection fees are waived if the homeowner decides to connect to the Regional Water Supply.
- e) The costs of constructing the Works on Private Property, including any plumbing requirements and the abandonment of unused wells will be borne by the property owner.
- g) Private wells can be constructed for property owners that reside outside of the water service area (outside the urban boundary) or when it is not economically feasible to extend water services to the affected party.
- h) Council approval is required for well interference works that exceeds \$100,000 and approval of the Commissioners of Works and Finance is required for works under \$100,000.

2.3 Future Re-development of the Affected Properties

- i) In the event that a property which has received the benefits of this policy is severed or subdivided in the future, Frontage Charges and Connection Fees will be payable to the Region for any new lots created at the rates in effect at the time of connection of the newly created lots to the Regional water supply system.
- j) In the event that a property which has received the benefits of this policy is rezoned or redeveloped in the future for a different use, Frontage Charges and Connection Fees will be payable to the Region for the property at the rates in effect at the time of rezoning or redevelopment application.

2.4 Other Matters

- k) Once connected to the Regional water supply system and provided the benefits of the Policy, the residents will be charged for water usage based on water meter readings and Regional water rate policies as approved by Council.
- l) Any existing unconnected properties that are experiencing impacts, where the watermain was previously constructed, will be granted the benefits of the Policy. The Policy is not retroactive to any previously connected properties that paid frontage and connection charges at the time of connection.

- m) Where the Region requests that the developer of a nearby development construct a watermain under the Well Interference Policy, the developer will be compensated for those works upon issuance of the “Completion Acceptance Letter” and provision of supporting documentation in accordance with the terms of the executed subdivision or servicing agreement.
- n) In the event that well monitoring is required, this work is to be completed by the Region and funded by the well interference program.
- o) In the event that there is a dispute with respect to the issue of actual well impact, the Region will request that the Ministry of the Environment review the situation and provide a decision in the matter as a means of resolving the dispute.

3.0 Summary of Proposed Policy Revisions

There are no recommended changes to the Region’s Well Interference Policy.

4.0 Financial Impact

The number of units that will fall under the well interference policy over the 2013-2028 forecast period is estimated at 415 units, resulting in a total cost of approximately \$13.4 million (average cost per unit is approximately \$32,300 per unit). The estimated financial impact of the \$13.4 million in well interference costs on the development charge quantum over the next 15 year period (67,265 standard equivalent units) is approximately \$199 per new single detached dwelling unit.

There is no matching user rate contribution as 100% of the cost associated with the well interference policy is funded by development charges.

6.0 Recommendations

It is recommended that the Region continue to address well interference in accordance with this Policy and that no changes be made to this policy.

ATTACHMENT NO. 1
WELL INTERFERENCE POLICY

WELL INTERFERENCE POLICY

A. DEFINITION OF TERMS

Affected Party	Shall be the owner of the property that is subject to a Well Impact.
Connection Fee	Shall be the fee paid by a homeowner for a Water Connection, as defined in the Region's Water System by-law.
Frontage Charge	Shall be the charge paid by a homeowner for a Watermain, as defined in the Region's Water System by-law.
Regional Service	Shall be a Watermain, Water Connection, sanitary sewer, sanitary sewer connection, Regional storm sewer, Regional storm sewer connection or Regional Road.
Temporary Supply of Water	Shall be a system of supplying water to an Affected Party during the construction period by any method deemed appropriate by the Region.
Water Connection	Shall refer to a water service connection and related appurtenances designed in accordance with Regional standards and located within the road right-of way, between the Watermain and the private property line.
Watermain	Shall refer to a watermain system and related appurtenances designed in accordance with Regional standards.
Well Impact	Shall refer to negative influences on the performance of a well, as determined by the Region, that reasonably, and in light of all available data can be attributed to the construction of a Regional Service.
Works on Private Property	Shall refer to all works outside of the municipal road right-of-way including, but not limited to, underground piping, internal and external plumbing, and the abandonment of unused wells.

B. POLICY

1.0 Well Interference Provisions During Construction

- a) A Temporary Supply of Water will be provided to an Affected Party at no cost during the construction period where there is a direct impact on the existing private well supply. Once a Water Connection is constructed and available for use to the property, this provision no longer applies. In order to invoke this aspect of the Policy, there needs to be some evidence of an actual impact related to the construction of Regional services as determined by Regional staff, such as:
 - o Lowering of the water level in the well beyond a usable level; and/or
 - o Negative impact on the quality of the water.

2.0 Well Interference Provisions Post Construction

- a) The Region will waive the applicable Frontage Charges and Connection Fee for properties serviced by Regional Water supply under this policy.
- b) The costs of constructing the Works on Private Property, including any plumbing requirements and the abandonment of unused wells will be borne by the property owner.

3.0 Future Redevelopment of the Lands

- a) In the event that a property which has received the benefits of this policy is severed or subdivided in the future, Frontage Charges and Connection Fees will be payable to the Region for any new lots created at the rates in effect at the time of connection of the newly created lots to the Regional water supply system.
- b) In the event that a property which has received the benefits of this policy is rezoned or redeveloped in the future for a different use, Frontage Charges and Connection Fees will be payable to the Region for the property at the rates in effect at the time of rezoning or redevelopment application.

4.0 Other Matters

- a) Once connected to the Regional water supply system and provided the benefits of the Policy, the residents will be charged for water usage based on water meter readings and Regional water rate policies as approved by Council.
- b) Any existing unconnected properties that are experiencing impacts, where the watermain was previously constructed, will be granted the benefits of the Policy. The Policy is not retroactive to any previously connected properties that paid frontage and connection charges at the time of connection.

- c) Where the Region requests that the developer of a nearby development construct a watermain under the Well Interference Policy, the developer will be compensated for those works upon issuance of the "Completion Acceptance Letter" and provision of supporting documentation in accordance with the terms of the executed subdivision or servicing agreement.
- d) In the event that well monitoring is required, this work is to be completed by the Region and funded by the well interference program.
- e) In the event that there is a dispute with respect to the issue of actual well impact, the Region will request that the Ministry of the Environment review the situation and provide a decision in the matter as a means of resolving the dispute.
- f) In the event that an Affected Party is located outside of the water supply service area, a new well may be constructed as an alternative method of addressing a well impact, subject to the approval of Works Committee and Council.
- g) That Council approval be required for well interference work that exceeds \$100,000 and approval of the Commissioners of Works and Finance be required for works under \$100,000.

APPENDIX D

INTENSIFICATION SERVICING POLICY

APPENDIX D – INTENSIFICATION SERVICING POLICY

1.0 INTRODUCTION

The purpose of this policy paper is to examine the costs of sanitary sewerage and water supply servicing associated with the 40% intensification requirement in the Durham Regional Official Plan (ROP).

1.1 Background

The ROP requires that urban areas be planned to achieve the following growth management objective on a Region wide basis:

“By 2015, and each year thereafter, accommodate a minimum 40% of all residential development occurring annually through intensification within built-up areas”.

Accordingly, the population forecasts contained in Appendix A have distributed 40% of the population growth in the urban areas throughout the built-up areas, based on density considerations for key structural elements of the Regional Official Plan (e.g. Urban Growth Centres, Regional Centres and Corridors, Commuter Stations and Waterfront Places).

Overall servicing of this intensification has been included in the water supply and sanitary sewerage analyses contained in Appendix F and Appendix G. However, even though the forecasted growth has been targeted to strategic areas on an average density basis, intensification projects occur on specific locations at a density beyond the average estimated for a broader area, such as a Regional Corridor. In these instances additional development charge works are required to service the specific sites.

Because the required development charge works are site or area specific and cannot be predicted with any certainty in advance, it is necessary to include an allowance for such works required to support intensification and to create a policy to provide access to these allowances, based on the costs of recent experiences in Durham Region.

2.0 APPLICABILITY

This policy is intended to be applicable to **all residential development within the built-up areas**, whether the development proceeds by plan of subdivision or condominium, consent or issuance of a building permit on an existing vacant parcel or redevelopment site.

3.0 DEVELOPMENT CHARGES ACT

The Development Charges Act, 1997, states that:

“ss.59(1) a municipality shall not, by way of a condition or agreement under section 51 or 53 of the *Planning Act*, impose directly or indirectly a charge related to a development or a requirement to construct a service related to development except as allowed in subsection (2).

(2) a condition or agreement referred to in subsection (1) may provide for:

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

The term "local services" is not specifically defined in the DCA, 1997 or the associated regulations.

The proposed Intensification Servicing Policy is consistent with the requirements referenced above.

3.1 Definition of "Local Service"

For the purposes of intensification servicing, "Local Service" may be defined as the components of the sanitary sewerage system and water supply system, which conform to Regional design guidelines and are of the minimum size required to provide service to the proposed development in its entirety.

4.0 ANALYSIS OF RECENT INTENSIFICATION PROJECTS

Over the course of the last several years, a number of large developments have been constructed or initiated in Durham that are representative of the type of intensification that is consistent with the new policy directions of the ROP, and that had development charge funded works (i.e. costs) associated with them, including:

- Simcoe Street Corridor, south of Durham College/UOIT, Oshawa
- The San Francisco by the Bay project, on Bayly Street, Pickering
- The Medallion Corporation project on Bayly Street and Harwood Avenue, Ajax

A brief description of each project and the development charge works that are required to service these intensification sites is provided below.

Simcoe Street Corridor

Student housing pressures in this corridor have been ongoing for several years. Through discussions with the City of Oshawa, provision has been made within the sanitary sewerage system to provide housing for 6,800 additional people. In order to provide service to these lands, modifications were required to the Simcoe Street Sanitary Pumping Station and forcemain totaling an estimated development charge cost of \$548,000. There are no development charge funded water supply works required to service this intensification project.

San Francisco by the Bay

This project involved the redevelopment of an underutilized shopping plaza into condominium apartments and townhouses for an ultimate population of 1,200 people. This project required the replacement of undersized sanitary trunk sewers downstream at a development charge cost of \$1,565,000. There are no development charge funded water supply works required to service this intensification project.

Medallion Bayly Street and Harwood Avenue

This project will create several apartment blocks over several phases. The ultimate population is planned for 3,190 people. Sanitary sewerage servicing required for this development is the construction of a new sanitary sewage pumping station and forcemain. These works will be oversized to allow for further intensification north of the subject site for an additional 4,800 people. The estimated development charge component of the cost of these works is \$2,555,000. There are no development charge funded water supply works required to service this intensification project.

There has also been a number of smaller developments constructed that are representative of the type of intensification required by the ROP that did not require any development charge funded works (i.e. costs) associated with them, including:

- 44 Bond Street, Oshawa: Redevelopment of an office building into condominiums for 229 people
- 400 Bloor Street East, Oshawa: Redevelopment of an abandoned industrial property into apartments for 90 people.
- 50 Station Street, Ajax: Redevelopment of an abandoned industrial property into apartments for 136 people.

There were no development charge funded water supply works or sanitary sewage works required to service any of these small intensification projects.

None of the above projects required any upgrades to the water supply system. Regional water supply systems are designed to support domestic uses as well as fire fighting demands. Fire fighting demands have a significant impact on the sizing of the systems as compared to increases in domestic uses resulting from intensification. It is, therefore, reasonable to only address sanitary sewerage servicing in this intensification policy.

The following table summarizes the additional sanitary sewerage servicing development charge costs per person required to service the intensification associated with the preceding examples:

Project	Intensification Population	Sanitary DC Cost	Sanitary DC Cost / Person
Simcoe Street Corridor	6,800	\$ 548,000	\$ 81
SF by the Bay	1,200	\$ 1,565,000	\$ 1,304
Bayly and Harwood	7,990	\$ 2,555,000	\$ 320
44 Bond Street	229	\$ 0	\$ 0
400 Bloor Street East	90	\$ 0	\$ 0
50 Station Street	136	\$ 0	\$ 0
Total	16,445	\$ 4,668,000	\$ 284

This analysis illustrates that while some intensification projects may have significant development charges funded works associated with them, others may have little-to-none.

The above table indicates that for every person planned to be added within the built boundary for this particular sample, it has cost \$284 to provide sanitary sewerage servicing. However, only 40% of the Region wide growth is planned to be provided within the built-up area, therefore, on a Region wide basis, a cost of \$114/person (\$284 x 40%) is the required sanitary servicing cost.

5.0 COMPARISON OF GREENFIELD VS. INTENSIFICATION COSTS

The Regional Official Plan requires that 40% of all new development occur within the built-up area. This policy direction serves to reduce the need for additional new growth (i.e. greenfield) areas while accommodating the population forecasts in the Plan.

The sanitary servicing analyses contained within this Background Study assume that 60% of the growth will occur within greenfield areas and 40% will occur within the built-up area as intensification, consistent with the directions of the ROP. Analyses of alternative shares between greenfield and intensification have not been completed. A direct comparison of whether or not intensification is less expensive than greenfield is not possible based on the data at hand.

6.0 PROPOSED POLICY

The proposed policy will create an intensification allowance within the sanitary sewage development charge quantum calculation. This allowance will be funded by Region wide development charge collection of **\$114** per person.

Developers can apply to use the funds in this allowance if their proposed development meets the following conditions:

- The proposed development must be located within the existing built-up area.
- The proposed development must require a development charge sanitary sewage work that is not already listed in the projects included in Appendix G.
- All local works as defined in Section 3.0 of this Appendix must be funded by the developer.
- The development must include new housing for at least 1,000 people.

Council approval will be required for all expenditures from this allowance.

As a condition of all future updates to this bylaw, actual sanitary sewage development charge servicing costs within the built-up area should be continuously monitored, added to the analyses contained within this Appendix, and the charge per person updated.

7.0 FINANCIAL IMPACT

The estimated financial impact on the development charge quantum based on the analyses contained in this Appendix is:

	<u>Average Cost Per</u> <u>Dwelling Unit (3.46 ppu) (\$2013)</u>
Sanitary Sewerage	<u>\$394</u>
TOTAL	<u>\$394</u>

8.0 RECOMMENDATIONS

It is recommended that the Region implement an Intensification Policy, as outlined above, to address site specific sanitary sewage servicing requirements within the built-up area and that the Sanitary Sewerage capital program include a provision for the anticipated additional growth related infrastructure costs in order to accommodate site specific, population-intense residential developments.

This intensification policy ensures that the Regional Development Charge is sized so as to cover the unknown additional sanitary sewerage costs that are not included in the sanitary sewerage capital program. This development charge component is addressed on an average Region-wide calculation basis, as with virtually all Regional servicing costs. Further, the development charge by-law provides an incentive for redevelopment via the redevelopment credit, which applies to non-exempt development being redeveloped.

APPENDIX E

REGIONAL ROADS SERVICE LEVELS, CAPITAL COSTS AND DC CALCULATIONS

APPENDIX E - REGIONAL ROADS

1.0 INTRODUCTION

This appendix documents the analysis completed to establish the Regional Roads component of the development charge. The appendix presents:

- An examination of the historical ten year average and projected fifteen year levels of service;
- A forecast of capital works expenditures required to address the increase in need for Regional road service attributable to the anticipated new development over the period January 1, 2013 – December 31, 2027; and
- The calculation of the development charge quantum.

2.0 SERVICE LEVELS

The following table lists the historical and projected service levels for Regional roads provided by the Region of Durham. This information has been estimated to ensure that the projected capital expenditures do not provide a standard of service that exceeds the average level that has been provided over the preceding ten (10) years. The analysis considered both the quantity and quality of service as required by subsection 4(1) of O. Reg. 82/98.

The quantity level of service was defined in terms of lane-kilometres of roadway per capita. The quality level of service was defined in terms of the average volume to capacity ratio combined for both directions of travel (vehicle travel in passenger car equivalents divided by the carrying capacity of the infrastructure) at four screenlines (lines that coincide with natural or man-made features, such as creeks and roads). The four screenlines examined were Highway 401 and Taunton Road for north-south travel, and Lake Ridge Road and Townline Road (Oshawa/Clarington)/Mid-Scugog for east-west conditions.

REGION OF DURHAM COMPARISON OF HISTORICAL AND PROJECTED LEVELS OF SERVICE FOR REGIONAL ROADS		
Service Measure	Historical 2001-2011	Projected 2028
<u>Quantity of Service</u> Average lane-kilometres of Regional Road per 1000 capita	3.6	3.0
<u>Quality of Service</u> Average volume to capacity ratio at screenline (combined for both directions of travel, A.M. peak hour):		
Highway 401(Pickering to Oshawa)	0.42	0.50
Taunton Road (Pickering to Oshawa)	0.32	0.42
Lake Ridge Road (Victoria St. to Myrtle Rd.)	0.53	0.54
Townline Road/Mid-Scugog (Hwy. 401 to Hwy. 7A)	0.33	0.35
All Screenlines	0.40	0.46

The expenditures described in the capital works forecast presented in the following Tables E.1 and E.2 provides a service level, in terms of both quantity and quality, which is less than the historical average over the last 10 years. Accordingly, all growth-related Regional Road improvement costs are eligible to be recovered from development charges, subject to the reductions identified in Section 3.3 below.

3.0 CAPITAL WORKS FORECAST

3.1 Development of Capital Works Program

A fifteen-year capital works program was prepared for the fiscal period 2013 – 2027, which identifies the projected expenditures, expressed in 2013 dollars, required to address the increase in need for Regional road service attributable to the anticipated development (Appendix A). For the purposes of the Development Charge rate calculation, this capital forecast has been lagged to match the time period of the development forecasts (i.e. July 1, 2013 to June 30, 2028).

The program shown in Tables E.1 and E.2 and Figures E.1 to E.6 is based on an assessment of the improvements and expansions required over the next fifteen years to serve expected demands. It includes the construction of road widenings, new connections, corridor improvements, intersection improvements, traffic signals and Highway 401 interchanges and grade separations required as a result of both new development and redevelopment within the Region.

The need for future road widenings and new connections was determined by examining forecasts of future traffic volumes on the Regional Road network simulated by the Durham Regional Transportation Planning Model (the Model). The Model, which employs the EMME travel modelling software package, is calibrated to the most recent travel survey information (2006 Transportation Tomorrow Survey), and verified using observed traffic counts (2011 GTA Cordon Count Program). It forecasts auto and transit travel within the entire Greater Toronto Area (GTA), focussing primarily on the freeways and arterial roads within Durham Region. Travel demands for the areas adjacent to and across the GTA boundary are also represented for completeness.

The Model identifies the increase in need for service as a result of the anticipated development and accounts for any uncommitted excess capacity presently within Durham's road system, consistent with the requirements of the Development Charges Act, 1997. It also utilizes available capacity on roads not under the Region's jurisdiction.

In particular, the forecasting methodology considered sensitivity analysis with respect to Provincial highway improvements, including Highway 407 (Phase 2). Many of these improvements do not have committed funding and thus have undefined timelines. Regional works staff performed sensitivity analysis, particularly in the latter timeframes of the study, to determine if there were any projected areas of perceived overlap between Regional road and Provincial highway improvements that would result in excess future capacity.

Our analysis considered the impact of the following highway improvements or extensions by 2027, as follows:

i) Highway 401

- Widen to 10 lanes from Salem Road to the West Durham Link
- Widen to 8 lanes from the West Durham Link to East Durham Link
- New interchanges at Lake Ridge Road, Simcoe Street (removal of Ritson Road interchange), and Holt Road

ii) Highway 407

- Extension from Brock Road to West Durham Link at 6 lanes
- Extension from West Durham Link to Highway 35/115 at 4 lanes
- West Durham and East Durham Links at 4 lanes
- New interchanges at Whites Road Extension (Seaton) and locations as per Phase 1 and 2 implementation.

iii) Highway 7

- Widen to 4 lanes from York-Durham Line to Baldwin Street (Brock Road to Baldwin Street widening to be completed in 2013).

iv) Highway 12

- Widen to 4 lanes from Highway 48 to Regional Highway 48

v) Highway 35

- Widen to 4 lanes from Highway 115 to Durham/Kawartha Lakes Boundary (and north to Lindsay)

vi) Highway 48

- Widen to 4 lanes from Lake Ridge Road (Durham/York boundary) to Highway 12 (tied to Highway 404 extension in York Region)

As noted above, not all of these freeway and highway improvements may be realized by 2027, therefore, Regional staff have assumed less ambitious improvements than have been recommended in approved Environmental Assessment studies (e.g. Highway 401, Highway 407). This is intended to result in a more reasonable projected Regional road network especially towards the end of the program and beyond.

Several key arterial or collector road improvements made by area municipalities were also considered for sensitivity analysis by the 2027 timeframe, based on their respective capital works programs. Again, this was done to result in a more reasonable Regional road expansion program while ensuring that necessary Regional road connections would be provided.

The Lakeshore East GO Rail extension to Bowmanville was also considered and analyzed to determine the system impacts if it were to be operational by the 2023-2027 time period. As per the approved EA study, this service is planned to offer full-day service in both directions to Oshawa (i.e., the new location north of Highway 401) and peak period service to Bowmanville. New GO stations at Thornton's Corners (Oshawa), Central Oshawa, Courtice and Bowmanville were assumed for the analysis. New GO Bus service on Highway 407 to the West Durham and East Durham freeway links, and connections to Highway 2 and other interchanges (e.g., Brock Road, Baldwin Street, Simcoe Street), were also assumed. The operation of these services influences the transit modal share and the distribution of auto trips to/from the GO stations and Highway 407 carpool/transit interface lots.

The forecasts of A.M. peak hour auto traffic volumes for 2011 and 2027 based on the anticipated development (Appendix A) were compared to existing capacities to identify future Regional road deficiencies by time period. This analysis was further refined through the consideration of lane continuity issues, provision of future transit service, and efforts to consolidate improvements to a minimum number of facilities.

The value of the capital works program shown in Tables E.1 and E.2 exceeds the amount projected in the 2008 Development Charges Background Study. This increase reflects a road network and intersection improvement schedule that has been modified based upon 2027 projections and a general escalation in road related construction costs experienced by the Region over the past five years since that study was prepared. As well, the cost estimating procedure used for the 2013 study has been further refined and has resulted in more detailed and precise forecasts of projected capital needs, inclusive of all ancillary costs such as land and utilities.

3.2 Forecast Periods

Tables E.1 and E.2, divide the projected capital works program into three forecast periods. The first five-year period (2013 – 2017) is similar to the Region's Annual Capital Budget and Four Year Forecast for the Regional Road system. This forecast is subject to review and approval by Regional Council on an annual basis. The works included in the second (2018 – 2022) and third periods (2023 – 2027) have been assigned to these time frames based on information currently available on existing system capacities, logical sequencing of projects (Hwy. 407 and Seaton), operations experience and the demand forecasts.

The timing of implementation for the various projects identified in the forecast and associated cost estimates are preliminary in nature. Project priorities, construction timing and cost estimates will be reviewed on an ongoing basis and will be subject to review and approval annually by Regional Council. Infrastructure improvements also require the completion of a Class Environmental Assessment prior to implementation.

3.3 Allocation of Capital Costs

Table E.1 and E.2 include works required to correct existing deficiencies, which will benefit both existing and new development, as well as system improvements and expansions required solely to support growth during the forecast period. Costs for expected rehabilitation projects over the fifteen-year study time frame have been included in the forecast for completeness, but are not shown as being eligible for Development Charge financing.

An assessment has been carried out to allocate the total cost of the various projects contained in the forecast between existing development (non-growth), new residential development (Table E.1), and new non-residential development (Table E.2). This assessment distributes the capital cost of the projects contained in the forecast based on the demand imposed on the system. Demands were assessed on a traffic volume basis.

In addition, the tables identify deductions in accordance with the Development Charges Act, 1997 for:

- “Benefit to Existing Development” is the anticipated value of new capital works attributable to existing development. This deduction is assessed on a project by project basis and is primarily applicable to reconstruction, rehabilitation and replacement components of project construction. As an example, in widening an existing 2-lane road to 4 lanes, the construction work may involve either rehabilitation or reconstruction of the two centre lanes. On this basis, the share of the total project cost associated with rehabilitating or reconstructing the existing two centre lanes was calculated and deemed to be beneficial to the existing community. Costs for all non-growth related projects identified in the capital works forecast were allocated entirely to this category.
- “Post Period Benefit”, is the value of any anticipated surplus capacity at the end of the forecast period which is to be recovered from subsequent development. The value of surplus capacity to be deducted was calculated on a project by project basis from the forecasted 2028 traffic volumes and capacities for those road widening and new connection projects to be constructed in the 2023-2027 time frame; and
- “Grants, Subsidy and Other”, which is the funding anticipated or received from sources other than the Regional Municipality of Durham.

The following average percentages have been used in allocating the eligible growth-related capital costs between new residential and new non-residential development in Tables E.1 and E.2. The split between residential and non-residential (68% / 32%) development is based on the incremental increase in population and employment over the 2013-2028 forecast period as identified in Appendix A, as follows:

$$\text{Residential: } \frac{232,280}{232,280 + 111,115} = 68\%$$

$$\text{Non-Residential: } 100\% - 68\% = 32\%$$

The non-residential share of 32% is further allocated to the industrial, commercial and institutional categories based on the incremental employment growth for these sectors as identified in Appendix A.

SUMMARY OF GROWTH-RELATED CAPITAL UTILIZATION FOR RESIDENTIAL AND NON-RESIDENTIAL PURPOSES	
Land Use Category	Percentage of Capital Attributable to Growth
Residential	68
Non Residential	
i) Industrial	18
ii) Commercial	10
iii) Institutional	4

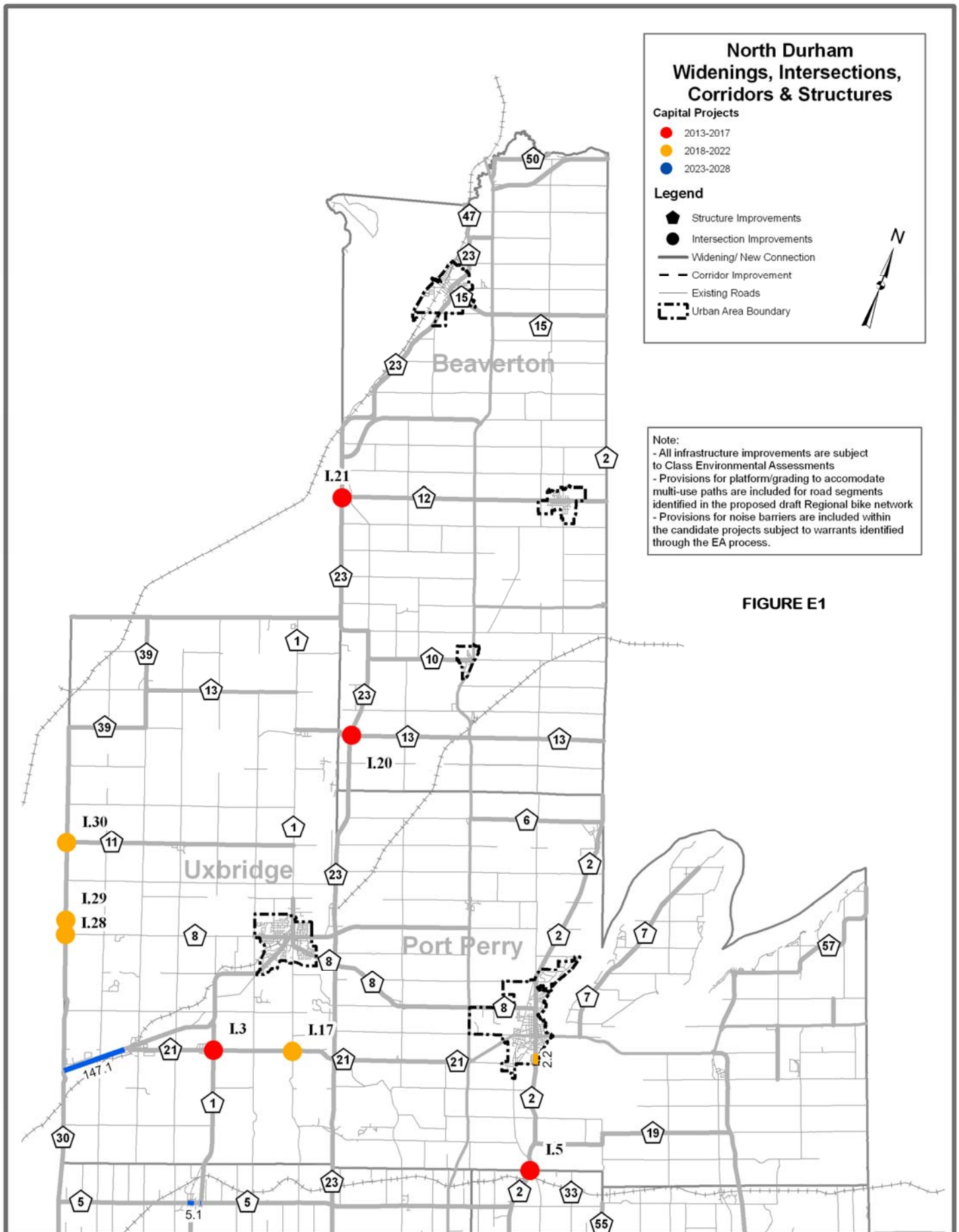
The following table provides a summary of the overall roads capital program (including Seaton) totalling approximately \$1.7 billion over the 2013-2028 time period.

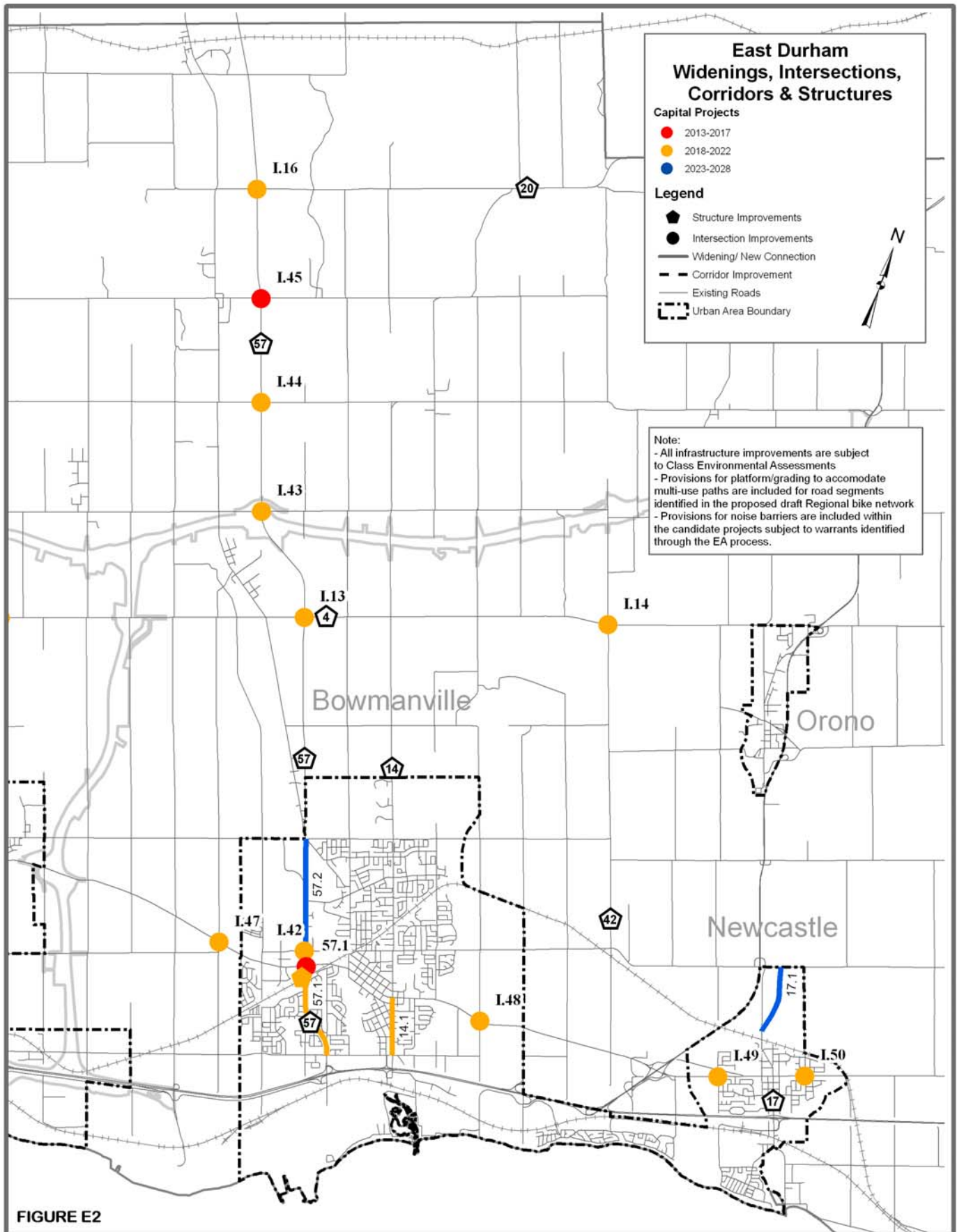
Roads Capital Summary (2013-2028)

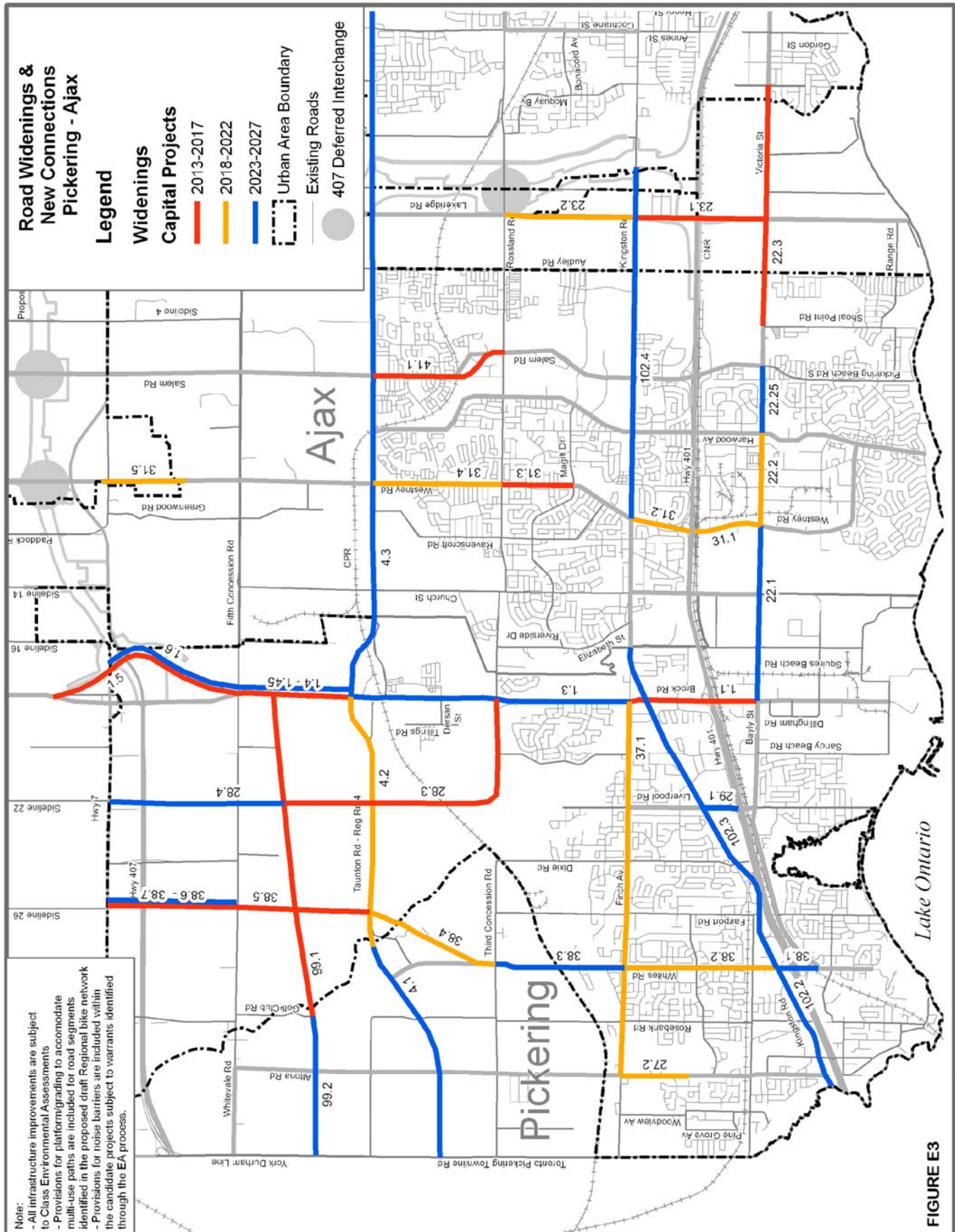
	Widenings, New Connections and Corridor Improvements	Intersection Improvements and Signal Installations	Highway 401 Interchanges and Grade Separations	Other Development Charge Component Works	Non-Development Charge Component Works	Total
Gross Cost	1,072,261	94,695	19,000	35,920	521,733	1,743,609
Benefit to Existing	104,948	9,470	1,167	2,997	521,733	640,315
Post Period Benefit	90,331	0	0	0	0	90,331
Grants, Subsidy & Other	0	5,687	2,333	0	0	8,021
Total Residential	596,338	53,902	10,540	22,328	0	683,108
Non-Residential	280,644	25,636	4,960	10,595	0	321,835
Grand Total	876,982	79,538	15,500	32,923	0	1,004,943

4.0 CALCULATION OF DEVELOPMENT CHARGE QUANTUM

Tables E.3 to E.6 determine the proposed Development Charge per unit and per floor space area for new residential and new non-residential development within the Region of Durham. These tables summarize the Net Growth Related Capital Costs against projected new development during the fifteen year forecast, deducting existing uncommitted Reserve Fund Balances. Allowances for financing of Committed Excess Capacity are not required since no debt has been issued to finance Regional road related improvements.







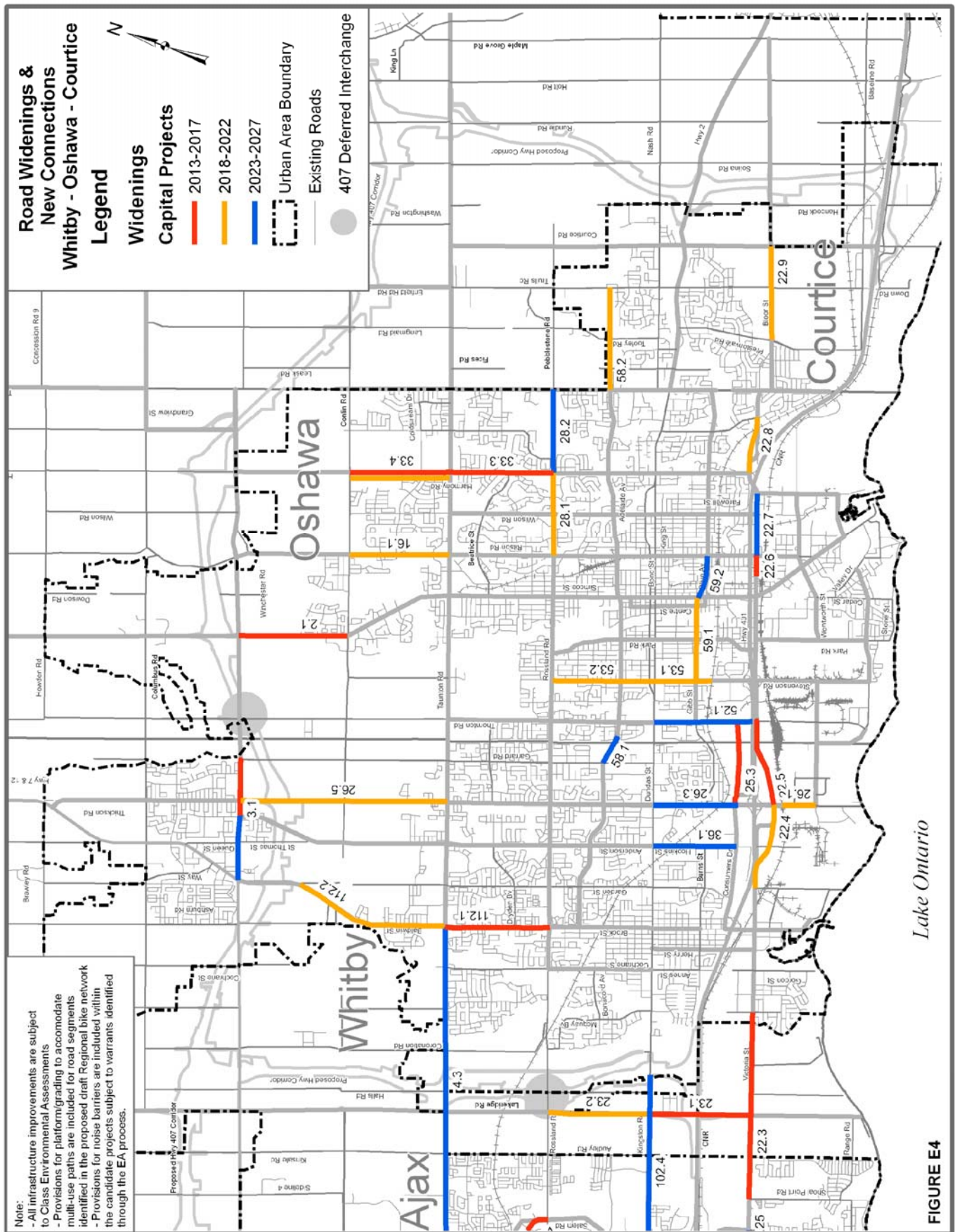
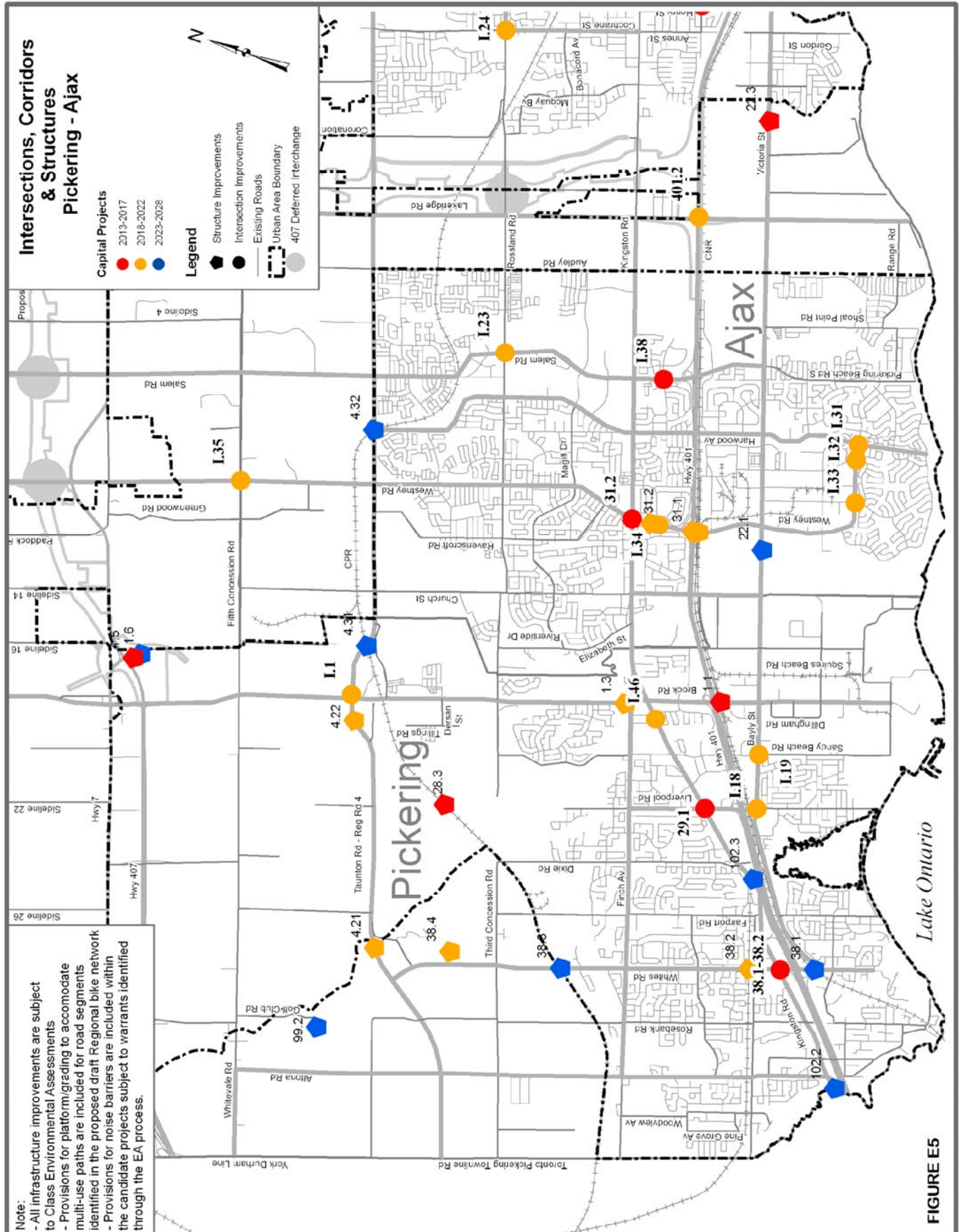


FIGURE E4



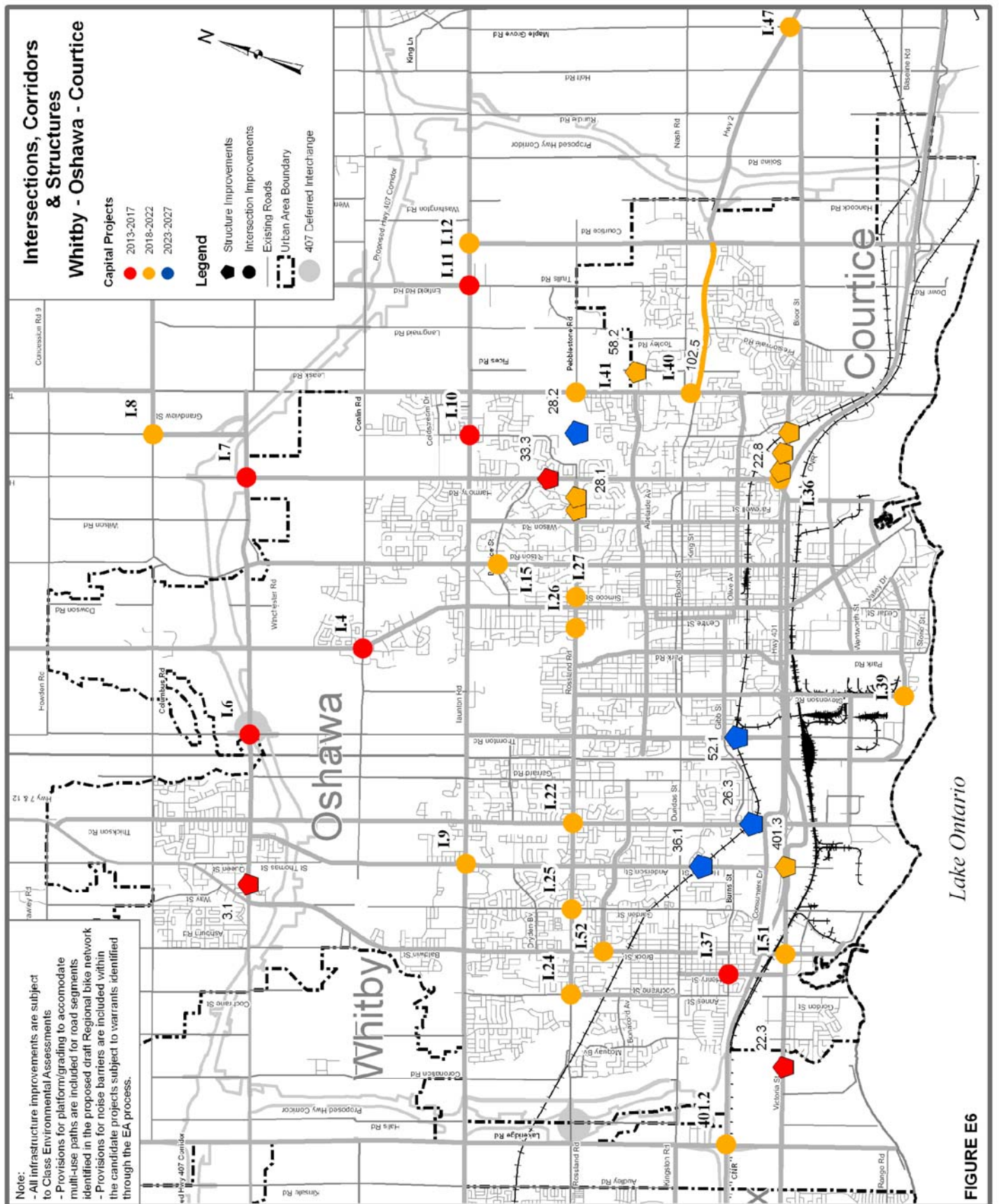


FIGURE E6

TABLE E.1 - REGIONAL ROADS: CAPITAL COST SUMMARY - RESIDENTIAL (YEAR 2013 - 2027)																
DEVELOPMENT RELATED RESIDENTIAL SHARE SERVICE: REGIONAL ROADS				GROSS COST (2013 Estimated Cost)	BENEFIT TO EXISTING DEVELOP.	POST PERIOD BENEFIT	GRANTS, SUBSIDY & OTHER	DEVELOPMENT RELATED		NET RESIDENTIAL GROWTH COST (2013 Estimated Cost)						
ROAD NAME		LIMITS	DESCRIPTION					NON- RESID.	RESID.	TOTAL			BY YEAR			
										2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
ITEM #	ROAD NAME	LIMITS	DESCRIPTION	\$ 000's	%	%	%	%	%							
Widenings, New Connections and Corridor Improvements																
1.1	Block Rd #1	Bayly St #22 to Finch Av #37	Widen from 5 to 7 lanes, including structure widening	11,200	9%	0%	0%	29%	62%	6,944	2,232	4,712	0	0	0	0
1.3	Block Rd #1	Finch Av #37 to Taunton Rd #4	Widen from 5 to 7 lanes, including structure widening	26,441	8%	0%	0%	29%	63%	16,658	0	0	0	0	0	16,658
1.4	Block Rd #1	Taunton Rd #4 to 5th Concession Rd	Widen from 2 to 4 lanes	13,600	7%	0%	0%	30%	63%	8,568	630	504	315	0	7,119	0
1.45	Block Rd #1	Taunton Rd #4 to 5th Concession Rd	Widen from 4 to 6 lanes	7,396	27%	60%	0%	4%	9%	650	0	0	0	0	0	650
1.5	Block Rd #1	5th Concession Rd to N. limit of Brougham	Construct new Brougham by-pass to 2/4 lanes	14,850	12%	0%	0%	28%	60%	8,910	1,920	2,400	4,590	0	0	0
1.6	Block Rd #1	5th Concession Rd to Hwy 7	Widen from 4 to 6 lanes, including super-structure widening	10,097	27%	46%	0%	9%	18%	1,823	0	0	0	0	0	1,823
2.1	Simcoe St #2	N. of Conlin Rd to Winchester Rd #3	Widen from 2 to 5 lanes	8,200	14%	0%	0%	28%	58%	4,756	58	348	1,160	3,190	0	0
2.2	Simcoe St #2	S. of King St to S. of Greenwood Blvd	Widen from 2 to 3 lanes	2,214	15%	0%	0%	27%	58%	1,284	0	0	0	0	1,284	0
3.1	Winchester Rd #3	Baldwin St /Reg Hwy 12 to Garrard Rd	Widen from 2 to 3 lanes, including structure widening	11,646	4%	0%	0%	31%	65%	7,570	423	195	3,900	0	3,053	0
4.1	Taunton Rd #4	Pickering/Toronto Townline Rd to Twelvevires Bridge	Widen from 4 to 6 lanes	14,498	26%	67%	0%	2%	5%	783	0	0	0	0	0	783
4.2	Taunton Rd #4	Twelvevires Bridge to Brock Rd #1	Widen from 4 to 6 lanes, including structure widening	34,590	14%	0%	0%	28%	58%	20,062	0	0	0	0	20,062	0
4.3	Taunton Rd #4	Brock Rd #1 to Brock St /Reg Hwy 12	Widen from 5 to 7 lanes, including new structure	55,992	10%	0%	0%	29%	61%	34,155	0	0	1,019	0	0	33,136
5.1	Central St #5	Canso Dr to Brock Rd #1	Urbanize and improve corridor	589	50%	0%	0%	16%	34%	200	0	0	0	0	0	200
14.1	Liberty St #14	Baseline Rd to King St (Hwy 2)	Widen from 2 to 3 lanes	4,680	35%	0%	0%	21%	44%	2,059	0	0	0	0	2,059	0
16.1	Rison Rd #16	Taunton Rd #4 to Conlin Rd	Widen from 2/3 to 5 lanes	12,256	34%	0%	0%	21%	45%	5,515	0	0	0	225	5,290	0
17.1	Mill St #17 Realignment	North of CPR to Conc. 3	Construct new alignment 2 to 3 lanes	5,297	0%	0%	0%	32%	68%	3,602	0	0	0	0	0	3,602
22.1	Bayly St #22	Brock Rd #1 to Westney Rd #31	Widen from 5 to 7 lanes, including structure widening	20,436	6%	0%	0%	30%	64%	13,079	0	0	0	0	0	13,079
22.2	Bayly St #22	Westney Rd #31 to Harwood Av #44	Widen from 5 to 7 lanes	10,026	7%	0%	0%	30%	63%	6,316	0	0	0	0	6,316	0
22.25	Bayly St #22	Harwood Av #44 to Salem Rd #41	Widen from 4 to 6 lanes	6,292	6%	85%	0%	3%	6%	403	0	0	0	0	0	403
22.3	Bayly St/Victoria St #22	Shoal Point Rd to Seaboard Gt	Widen from 2 to 4/5 lanes, including new structure	15,900	30%	0%	0%	22%	48%	7,632	960	960	5,712	0	0	0
22.4	Victoria St #22	South Blair St to W. of Thickson Rd #26	Construct new alignment and widen from 2 to 5 lanes	8,990	15%	0%	0%	27%	58%	5,214	0	290	0	0	4,924	0
22.5	Victoria St/Bloor St #22	E. of Thickson Rd #26 to Thornton Rd #52	Widen from 2/3 to 5 lanes	11,000	18%	0%	0%	26%	56%	6,160	0	0	560	336	5,264	0
22.6	Bloor St #22	Merritt St to Rison Rd #16	Widen from 4 to 5 lanes	4,600	28%	0%	0%	23%	49%	2,254	0	0	0	0	0	0
22.7	Bloor St #22	Rison Rd #16 to Farewell St #56	Widen from 3 to 5 lanes	6,727	34%	59%	0%	2%	5%	309	0	0	0	0	0	309
22.8	Bloor St #22	Harmony Rd #33 to Grandview St	Construct new alignment to 4 lanes, with new CPR grade separation and bridge crossing of Farewell Creek	21,042	3%	0%	0%	31%	66%	13,888	0	0	0	264	132	13,492
22.9	Bloor St #22	Prestonvale Rd to Courice Rd #34	Widen from 2 to 3 lanes and improve profile	8,576	44%	0%	0%	18%	38%	3,259	0	0	0	0	3,259	0
23.1	Lake Ridge Rd #23	Bayly St #22 to Kingston Rd Reg Hwy 2	Widen from 2 to 5 lanes	3,500	33%	0%	0%	21%	46%	1,610	0	138	46	1,380	0	0
23.2	Lake Ridge Rd #23	Kingston Rd/Reg Hwy 2 to Rossland Rd #28	Widen from 2 to 5 lanes	7,778	15%	0%	0%	27%	58%	4,511	0	0	0	0	4,511	0
25.3	Consumers Dr #25	E. of Thickson Rd #26 to Thornton Rd #52	Construct new connection to 2 lanes	8,600	1%	0%	0%	32%	67%	5,762	335	134	0	5,293	0	0
26.1	Thickson Rd #26	Wenworth St #60 to CNR Kingston	Widen from 2 to 4 lanes	2,160	16%	0%	0%	27%	57%	1,231	0	0	0	57	1,117	0
26.3	Thickson Rd #26	Consumers Dr #25 to Dundas St (Hwy 2)	Widen from 5 to 7 lanes, including new structure	22,587	3%	74%	0%	7%	16%	3,587	0	0	0	0	0	3,587
26.5	Thickson Rd #26	Taunton Rd #4 to Winchester Rd #3	Widen from 2 to 5 lanes	20,433	12%	0%	0%	28%	60%	12,260	0	0	0	1,002	0	11,258
27.2	Altona Rd #27	N. of Strouds Lane to Finch Av #37	Widen from 2 to 3 lanes	3,979	38%	0%	0%	20%	42%	1,671	0	0	0	0	0	1,671
28.1	Rossland Rd #28	Rison Rd #16 to Harmony Rd #33	Widen from 3 to 5 lanes, including structure widening	11,468	4%	0%	0%	31%	65%	7,455	0	0	325	325	6,740	0
28.2	Rossland Rd #28	Harmony Rd #33 to E. of Townline Rd #55	Construct new 3 lane alignment to E. of Townline Rd #55, including new bridge crossing of Harmony Creek tributary	20,684	1%	63%	0%	11%	25%	5,134	0	0	0	0	99	5,034
28.3	Rossland Rd #28	Brock Rd #1 to Whitevale Bypass	Construct new alignment to 4 lanes with CPR grade separation	41,260	0%	0%	0%	32%	68%	28,057	0	0	28,057	0	0	0
28.4	Rossland Rd #28	Whitevale Bypass to Hwy 7	Construct new alignment to 4 lanes	7,238	0%	26%	0%	24%	50%	3,620	0	0	0	0	0	3,620
29.1	Liverpool Rd #29	Hwy 401 to Kingston Rd /Reg Hwy 2	Widen from 5 to 7 lanes	3,566	6%	0%	0%	30%	64%	2,282	64	544	0	0	0	1,674
31.1	Westney Rd #31	Bayly St #22 to Hwy 401	Widen from 5 to 7 lanes	6,799	8%	0%	0%	29%	63%	4,284	0	0	0	0	4,284	0
31.2	Westney Rd #31	Hwy 401 to Kingston Rd /Reg Hwy 2	Widen from 5 to 7 lanes, including structure widening	8,048	5%	0%	0%	30%	65%	5,231	390	1,918	0	0	2,924	0
31.3	Westney Rd #31	Delaney Dr to Rossland Rd	Widen from 3 to 4 lanes	7,850	3%	0%	0%	31%	66%	5,181	0	5,181	0	0	0	0
31.4	Westney Rd #31	Rossland Rd to Taunton Rd #4	Widen from 2 to 5 lanes	10,129	4%	0%	0%	31%	65%	6,594	0	0	0	0	325	6,259

TABLE E.1 - REGIONAL ROADS: CAPITAL COST SUMMARY - RESIDENTIAL (YEAR 2013 - 2027)																	
ITEM #	ROAD NAME	LIMITS	DESCRIPTION	GROSS COST 2013 Estimated Cost)	BENEFIT TO EXISTING DEVELOP.	POST PERIOD BENEFIT	GRANTS, SUBSIDY & OTHER	DEVELOPMENT RELATED		TOTAL	NET RESIDENTIAL GROWTH COST (2013 Estimated Cost)						
								NON- RESID.	RESID.		BY YEAR						
											2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
				\$ 000's	%	%	%	%		\$ 000's							
Widenings, New Connections and Corridor Improvements																	
31.5	Westney Rd #31	S. of Greenwood to N. of Greenwood	Construct new Greenwood by-pass to 2 lanes	8,157	16%	0%	0%	0%	57%	4,650	0	228	0	0	0	4,422	0
33.3	Harmony Rd #33	Rossland Rd #28 to Taunton Rd #4	Widen from 3 to 5 lanes, including structure widening	10,200	6%	0%	0%	0%	30%	6,528	0	0	384	6,144	0	0	0
33.4	Harmony Rd #33	Taunton Rd #4 to Conlin Rd	Widen from 2 to 5 lanes	16,446	17%	0%	0%	0%	27%	9,210	3,780	280	504	196	0	4,450	0
36.1	Hopkins St #36	Consumers Dr #25 to Dundas St. (Hwy 2)	Widen from 2 to 3 lanes, with new CPR grade separation	14,281	6%	0%	0%	0%	30%	9,140	0	0	0	0	0	9,140	0
37.1	Finch Av #37	Altona Rd #27 to Brock Rd #1	Widen from 2 to 3 lanes	22,057	36%	0%	0%	0%	20%	9,705	0	0	0	0	220	9,485	0
38.1	Whites Rd #38	Baily St #22 to Kingston Rd /Reg Hwy 2	Widen from 5 to 7 lanes, including structure widening	12,088	3%	0%	0%	0%	31%	7,978	99	429	1,155	0	0	0	6,295
38.2	Whites Rd #38	Kingston Rd /Reg Hwy 2 to Finch Av #37	Widen from 5 to 7 lanes, including structure widening	18,215	6%	0%	0%	0%	30%	11,658	96	416	1,120	0	0	10,026	0
38.3	Whites Rd #38	Finch Av #37 to 3rd Concession Rd	Widen from 2 to 6 lanes, with new CPR grade separation	20,687	14%	61%	0%	0%	8%	3,492	0	0	0	0	0	0	3,492
38.4	Whites Rd #38	3rd Concession Rd to Taunton Rd #4	Construct new alignment to 6 lanes, with new bridge crossing of West Duffins Creek	70,662	1%	0%	0%	0%	32%	47,344	0	0	23,450	0	0	23,894	0
38.5	Whites Rd #38	Taunton Rd #4 to Whitevale Rd	Construct new alignment to 6 lanes	13,415	0%	0%	0%	0%	32%	9,122	0	0	9,122	0	0	0	0
38.6	Whites Rd #38	Whitevale Rd to Hwy 7	Construct new alignment to 4 lanes	7,021	0%	0%	0%	0%	32%	4,774	0	0	4,774	0	0	0	0
38.7	Whites Rd #38	Whitevale Rd to Hwy 7	Widen from 4 to 6 lanes	4,427	26%	0%	0%	0%	24%	2,205	0	0	0	0	0	0	2,205
41.1	Salem Rd #41	Rossland Rd #28 to Taunton Rd #4	Final surface asphalt	1,000	0%	0%	0%	0%	32%	680	0	680	0	0	0	0	0
52.1	Thornton Rd #52	Champlain Av #25 to King St. (Hwy 2)	Widen from 2 to 3 lanes, with new CPR grade separation	14,414	7%	0%	0%	0%	30%	9,081	0	0	315	315	63	8,388	0
53.1	Stevenson Rd #53	CPR Belleville to Bond St	Widen from 4 to 5 lanes	6,137	8%	0%	0%	0%	29%	3,866	0	0	0	315	315	3,236	0
53.2	Stevenson Rd #53	Bond St to Rossland Rd #28	Widen from 3 to 5 lanes	12,801	35%	0%	0%	0%	21%	5,632	0	0	0	220	220	5,192	0
57.1	Waverly Rd/Martin Rd #57	Baseline Rd to King St /Reg Hwy 2	Widen from 2 to 4 lanes, including structure widening	13,851	20%	0%	0%	0%	26%	7,480	270	270	54	162	1,620	5,104	0
57.2	Martin Rd #57	King St /Reg Hwy 2 to Nash Rd	Widen from 2 to 4 lanes	7,087	12%	56%	0%	0%	10%	1,565	0	0	0	0	0	0	1,565
58.1	Manning Rd/Adelaide Av #58	Garrard Rd to Thornton Rd #52	Construct new connection to 3 lanes, with new crossing of Corbett Creek	4,629	1%	0%	0%	0%	32%	3,101	0	0	0	255	27	2,820	0
58.2	Adelaide Av #58	Townline Rd #55 to Trulls Rd	Construct new bridge crossing of Farewell Creek and construct new 3 lane road (segments). *New road (segments) to be constructed by others with funding provided by the Region to widen from 2 to 3 lanes.	24,705	0%	0%	0%	0%	32%	16,799	0	0	0	0	0	16,799	0
59.1	Gibb St #59	E. of Stevenson Rd #53 to Simcoe St #2	Widen from 3 to 4 lanes	17,668	18%	0%	0%	0%	26%	9,894	448	196	280	476	840	7,654	0
59.2	Gibb St/Olive Av #59	Interconnection from Simcoe St #2 to Ritson Rd #16	Construct new connection to 4 lanes	16,683	3%	43%	0%	0%	17%	6,203	0	186	186	186	0	5,460	0
99.1	Whitevale Rd realignment	Brock Rd #1 to Golf Club Rd	Construct new connection to 4 lanes	36,119	0%	0%	0%	0%	32%	24,561	0	0	24,561	0	0	0	0
99.2	Whitevale Rd realignment	York/Durham Line to Golf Club Rd	Construct new connection to 2 lanes, including new structure	39,041	0%	0%	0%	0%	32%	26,548	0	0	0	0	0	26,548	0
102.2	Kingston Rd /Reg Hwy 2	Pickering/Toronto Boundary to Whites Rd #38	Widen from 5 to 7 lanes, including structure widening	18,821	5%	0%	0%	0%	30%	12,233	0	0	0	0	0	12,233	0
102.3	Kingston Rd /Reg Hwy 2	Whites Rd #38 to Notion Rd	Widen from 5 to 7 lanes, including new structure	37,392	7%	0%	0%	0%	30%	23,557	0	0	0	0	0	23,557	0
102.4	Kingston Rd /Reg Hwy 2	Westney Rd #31 to Hwy 407 west link	Widen from 5 to 7 lanes	28,364	9%	0%	0%	0%	29%	17,585	0	0	0	1,035	0	16,550	0
102.5	King St /Reg Hwy 2	Townline Rd #55 to Courtice Rd #34	Improve corridor	2,729	50%	0%	0%	0%	16%	928	0	0	0	0	0	928	0
112.1	Brock St /Reg Hwy 12	Rossland Rd #28 to Taunton Rd #4	Widen from 3 to 5 lanes	11,650	13%	0%	0%	0%	28%	6,874	354	0	0	177	6,343	0	0
112.2	Baldwin St /Reg Hwy 12	Taunton Rd #4 to Garden St	Widen from 2 to 5 lanes	15,234	12%	0%	0%	0%	28%	9,140	0	0	0	300	300	8,540	0
147.1	Reg Hwy 47	York/Durham Line #30 to Goodwood Rd #21	Widen from 2 to 4 lanes, with re-alignment at Goodwood	13,064	0%	52%	0%	0%	15%	4,290	0	0	0	0	0	4,290	0
Sub-Total (Widenings, New Connections and Corridor Improvements)				1,072,261	104,948	90,331	0			596,338	14,313	20,008	110,570	21,313	24,799	207,769	197,567

TABLE E.1 - REGIONAL ROADS: CAPITAL COST SUMMARY - RESIDENTIAL (YEAR 2013 - 2027)

DEVELOPMENT RELATED RESIDENTIAL SHARE SERVICE: REGIONAL ROADS				NET RESIDENTIAL GROWTH COST (2013 Estimated Cost)															
ITEM #	ROAD NAME	LIMITS	DESCRIPTION	GROSS COST (2013 Estimated Cost)	BENEFIT TO EXISTING DEVELOP.	POST PERIOD BENEFIT	GRANTS, SUBSIDY & OTHER	DEVELOPMENT RELATED		TOTAL	BY YEAR								
								NON- RESID.	RESID.		2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027		
				\$ 000's	%	%	%	%		\$ 000's									
Widenings, New Connections and Corridor Improvements																			
Highway 401 Interchanges and Grade Separations																			
ITEM #	LOCATION	DESCRIPTION																	
401.2	Lake Ridge Rd #23	Construct new interchange at Lake Ridge Rd #23																	
401.3	Hopkins St	Construct new Hopkins St overpass																	
Sub-Total (Highway 401 Interchanges and Grade Separations)				19,000	1.167	0	2,333			10,540	0	0	0	0	0	0	10,540	0	
Other Development Charge Component Works																			
ITEM #	DESCRIPTION																		
O.1	Undefined Misc. Engineering Activities																		
O.2	Undefined Misc. Property Acquisition																		
O.3	Undefined Misc. Landscaping Projects																		
O.4	Contingencies Development Related																		
O.5	Transportation Master Plan Reviews																		
O.6	Intelligent Transportation System Projects																		
O.7	Maintenance Facilities and Vehicles Capital Allowance																		
O.8	Regional Share of Services for Residential Subdivision Development																		
Sub-Total (Other Development Charge Component Works)				35,920	2.997	0	0			22,328	2,348	1,492	1,678	1,379	1,736	7,104	6,591		
Non-Development Charge Component Works																			
ITEM #	DESCRIPTION																		
O.9	Road and Storm Sewer Reconstruction Projects:																		
	3rd Concession Rd #13	Lake Ridge Rd #33 - 1.5 km west of Highway 12																Reconstruct and geometric improvements	
	Ridson Rd #16	Richmond St to Adelaide Av #58																Reconstruct to 4 lanes	
	Henry St #45	Dundas St to Hwy 401																Reconstruct to 2 lanes	
	Undefined Future Rd and Storm Sewer Reconstruction Projects																		
O.10	Road Resurfacing and Rehabilitation Program																		
O.11	Structure Replacement Projects:																		
	Region Rd #6, Saintfield Rd. Bridge over Layton River 4 km East of Highway 12																	0%	
	Region Rd #8, Nonquon Bridge, 0.45 km West of Highway 12																	0%	
	Region Rd #13 McCully Bridge, 3rd Concession Rd, 1.0 km West of Highway 12																	0%	
	Main St #17 at Orono Creek 1.4 km south of Taunton Rd #4																	0%	
	Undefined Future Structure Replacement Projects																	0%	
O.12	Structure Rehabilitation Program																		
O.13	Traffic Control Signal and System Modernization and Upgrade Programs																		
O.14	Roadway Protection and Signing Programs																		
Sub-Total (Non-Development Charge Component Works)				521,733	521.733	0	0			683,108	18,080	23,006	114,614	25,772	28,426	255,327	217,882		
TOTAL OF REGION				1,743,609	640,315	90,331	8,021	0	0	683,108	18,080	23,006	114,614	25,772	28,426	255,327	217,882		

TABLE E.2 - REGIONAL ROADS: CAPITAL COST SUMMARY - NON-RESIDENTIAL (YEAR 2013 - 2027)														
DEVELOPMENT RELATED NON-RESIDENTIAL SHARE SERVICE: REGIONAL ROADS	GROSS COST 2013 (Estimated Cost)	BENEFIT TO EXISTING DEVELOP.	POST PERIOD BENEFIT	GRANTS, SUBSIDY & OTHER	DEVELOPMENT RELATED		NET NON-RESIDENTIAL GROWTH COST (2013 Estimated Cost)							
					NON- RESID.	RESID.	TOTAL	BY YEAR						
								2013	2014	2015	2016	2017	2018 - 2021	2022 - 2027
	\$ 000's	%	%	%	%	%						\$ 000's		

Widenings, New Connections and Corridor Improvements

1.1	Block Rd #1	Bayly St #22 to Finch Av #37	Widen from 5 to 7 lanes, including structure widening.	11,200	9%	0%	0%	0%	29%	62%	3,248	1,044	2,204	0	0	0	0	0
1.3	Block Rd #1	Finch Av #37 to Taunton Rd #4	Widen from 5 to 7 lanes, including structure widening.	26,441	8%	0%	0%	0%	29%	63%	7,668	0	0	0	0	0	0	7,668
1.4	Block Rd #1	Taunton Rd #4 to 5th Concession Rd	Widen from 2 to 4 lanes	13,600	7%	0%	0%	0%	30%	63%	4,080	300	240	150	0	3,390	0	0
1.45	Block Rd #1	Taunton Rd #4 to 5th Concession Rd	Widen from 4 to 6 lanes	7,396	2%	60%	0%	0%	4%	9%	296	0	0	0	0	0	0	296
1.5	Block Rd #1	5th Concession Rd to N. limit of Brougham	Construct new Brougham bypass to 2/4 lanes structure widening	14,850	12%	0%	0%	0%	28%	60%	4,158	896	1,120	2,142	0	0	0	0
1.6	Block Rd #1	5th Concession Rd to Hwy 7	Widen from 4 to 6 lanes, including super-structure widening	10,097	27%	46%	0%	0%	9%	18%	909	0	0	0	0	0	0	909
2.1	Simcoe St #2	N. of Conlin Rd to Winchester Rd #3	Widen from 2 to 5 lanes	8,200	14%	0%	0%	0%	28%	58%	2,296	28	168	560	1,540	0	0	0
2.2	Simcoe St #2	S. of King St to S. of Greenway Blvd	Widen from 2 to 3 lanes	2,214	15%	0%	0%	0%	27%	58%	598	0	0	0	0	0	0	598
3.1	Winchester Rd #3	Baldwin St / Reg Hwy 12 to Gairard Rd	Widen from 2 to 3 lanes, including structure widening	11,646	4%	0%	0%	0%	31%	65%	3,610	202	93	1,860	0	0	1,456	0
4.1	Taunton Rd #4	Pickering/Toronto Townline Rd to Twelvevires Bridge	Widen from 4 to 6 lanes	14,498	26%	67%	0%	0%	2%	5%	290	0	0	0	0	0	0	290
4.2	Taunton Rd #4	Twelvevires Bridge to Brock Rd #1	Widen from 4 to 6 lanes, including structure widening	34,590	14%	0%	0%	0%	28%	58%	9,685	0	0	0	0	0	9,685	0
4.3	Taunton Rd #4	Brock Rd #1 to Brock St / Reg Hwy 12	Widen from 5 to 7 lanes, including new structure	55,992	10%	0%	0%	0%	29%	61%	16,238	0	0	0	484	0	0	15,753
5.1	Central St #5	Conso Dr to Brock Rd #1	Urbanize and improve corridor	589	50%	0%	0%	0%	16%	34%	94	0	0	0	0	0	0	94
14.1	Liberty St #14	Baseline Rd to King St (Hwy 2)	Widen from 2 to 3 lanes	4,680	35%	0%	0%	0%	21%	44%	983	0	0	0	0	0	0	983
16.1	Rosland Rd #16	Taunton Rd #4 to Conlin Rd	Widen from 2/3 to 5 lanes	12,256	34%	0%	0%	0%	21%	45%	2,574	0	0	0	0	1,051	2,469	0
17.1	Mill St #17 Realignment	North of CPR to Conc. 3	Construct new alignment 2 to 3 lanes	5,297	0%	0%	0%	0%	32%	68%	1,695	0	0	0	0	0	0	1,695
22.1	Bayly St #22	Brock Rd #1 to Westway Rd #31	Widen from 5 to 7 lanes, including structure widening	20,436	6%	0%	0%	0%	30%	64%	6,131	0	0	0	0	0	0	6,131
22.2	Bayly St #22	Westway Rd #31 to Harwood Av #44	Widen from 5 to 7 lanes	10,026	7%	0%	0%	0%	30%	63%	3,008	0	0	0	0	0	3,008	0
22.25	Bayly St #22	Harwood Av #44 to Salem Rd #41	Widen from 4 to 6 lanes	6,292	6%	85%	0%	0%	3%	6%	189	0	0	0	0	0	0	189
22.3	Bayly St/Victoria St #22	Shoal Point Rd to Seaboard St	Widen from 2 to 4/5 lanes, including new structure	15,900	30%	0%	0%	0%	22%	48%	3,498	440	440	2,618	0	0	0	0
22.4	Victoria St #22	South Blair St to W. of Thickson Rd #26	Construct new alignment and widen from 2 to 5 lanes	8,990	15%	0%	0%	0%	27%	58%	2,427	0	135	0	0	0	2,292	0
22.5	Victoria St/Bloor St #22	E. of Thickson Rd #26 to Thornton Rd #52	Widen from 2/3 to 5 lanes	11,000	18%	0%	0%	0%	26%	56%	2,860	0	0	260	156	2,444	0	0
22.6	Bloor St #22	Merritt St to Rison Rd #16	Widen from 4 to 5 lanes	4,600	28%	0%	0%	0%	23%	49%	1,058	0	0	0	0	0	0	0
22.7	Bloor St #22	Rison Rd #16 to Farewell St #56	Widen from 3 to 5 lanes	6,727	34%	59%	0%	0%	2%	5%	135	0	0	0	0	0	0	135
22.8	Bloor St #22	Harmony Rd #33 to Grandview St	Construct new alignment to 4 lanes, with new CPR grade separation and bridge crossing of Farewell Creek	21,042	3%	0%	0%	0%	31%	66%	6,523	0	0	0	124	62	6,337	0
22.9	Bloor St #22	Prestonvale Rd to Courtice Rd #34	Widen from 2 to 3 lanes and improve profile	8,576	44%	0%	0%	0%	18%	38%	1,544	0	0	0	0	0	1,544	0
23.1	Lake Ridge Rd #23	Bayly St #22 to Kingston Rd Reg Hwy 2	Widen from 2 to 5 lanes	3,500	33%	0%	0%	0%	21%	46%	735	0	63	21	21	630	0	0
23.2	Lake Ridge Rd #23	Kingston Rd/Reg Hwy 2 to Rosland Rd #28	Widen from 2 to 5 lanes	7,778	15%	0%	0%	0%	27%	58%	2,100	0	0	0	0	0	2,100	0
25.3	Consumers Dr #25	E. of Thickson Rd #26 to Thornton Rd #52	Construct new connection to 2 lanes	8,600	1%	0%	0%	0%	32%	67%	2,752	160	64	0	2,528	0	0	0
26.1	Thickson Rd #26	Wentworth St #60 to CNR Kingston	Widen from 2 to 4 lanes	2,160	16%	0%	0%	0%	27%	57%	583	0	0	0	27	27	529	0
26.3	Thickson Rd #26	Consumers Dr #25 to Dundas St (Hwy 2)	Widen from 5 to 7 lanes, including new structure	22,587	3%	74%	0%	0%	7%	16%	1,981	0	0	0	0	0	0	1,981
26.5	Thickson Rd #26	Taunton Rd #4 to Winchester Rd #3	Widen from 2 to 5 lanes	20,433	12%	0%	0%	0%	28%	60%	5,721	0	0	0	468	0	5,254	0
27.2	Alona Rd #27	N. of Strouds Lane to Finch Av #37	Widen from 2 to 3 lanes	3,979	38%	0%	0%	0%	20%	42%	796	0	0	0	0	0	0	796
28.1	Rosland Rd #28	Rison Rd #16 to Harmony Rd #33	Widen from 3 to 5 lanes, including structure widening	11,458	4%	0%	0%	0%	31%	65%	3,555	0	0	155	155	31	3,214	0
28.2	Rosland Rd #28	Harmony Rd #33 to E. of Townline Rd #55	Construct new 3 lane alignment to E. of Townline Rd #55, including new bridge crossing of Harmony Creek tributary	20,684	1%	63%	0%	0%	11%	25%	2,275	0	0	0	0	44	0	2,231
28.3	Rosland Rd #28	Brock Rd #1 to Whitevale Bypass	Construct new alignment to 4 lanes with CPR grade separation	41,250	0%	0%	0%	0%	32%	68%	13,203	0	0	13,203	0	0	0	0
28.4	Rosland Rd #28	Whitevale Bypass to Hwy 7	Construct new alignment to 4 lanes	7,238	0%	29%	0%	0%	24%	50%	1,737	0	0	0	0	0	0	1,737
29.1	Liverpool Rd #29	Hwy 401 to Kingston Rd / Reg Hwy 2	Widen from 5 to 7 lanes	3,568	6%	0%	0%	0%	30%	64%	1,070	30	255	0	0	0	0	785
31.1	Westway Rd #31	Bayly St #22 to Hwy 401	Widen from 5 to 7 lanes	6,794	8%	0%	0%	0%	29%	63%	1,972	0	0	0	0	0	1,972	0
31.2	Westway Rd #31	Hwy 401 to Kingston Rd / Reg Hwy 2	Widen from 5 to 7 lanes, including structure widening	8,048	5%	0%	0%	0%	30%	65%	2,414	180	885	0	0	0	1,349	0
31.3	Westway Rd #31	Delaney Dr to Rosland Rd	Widen from 3 to 4 lanes	7,850	3%	0%	0%	0%	31%	66%	2,434	0	0	0	0	0	0	0
31.4	Westway Rd #31	Rosland Rd to Taunton Rd #4	Widen from 2 to 5 lanes	10,128	4%	0%	0%	0%	31%	65%	3,140	0	0	0	155	0	2,985	0

TABLE E.2 - REGIONAL ROADS: CAPITAL COST SUMMARY - NON-RESIDENTIAL (YEAR 2013 - 2027)																			
ITEM #	ROAD NAME	LIMITS	DESCRIPTION	GROSS COST (2013 Estimated Cost)	BENEFIT TO EXISTING DEVELOP.	POST PERIOD BENEFIT	GRANTS, SUBSIDY & OTHER	DEVELOPMENT RELATED		NET NON-RESIDENTIAL GROWTH COST (2013 Estimated Cost)									
								NON- RESID.	RESID.	TOTAL					BY YEAR				
										2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027			
				\$ 000's	%	%	%	%	%	\$ 000's									
Widenings, New Connections and Corridor Improvements																			
31.5	Westney Rd #31	S. of Greenwood to N. of Greenwood	Construct new Greenwood by-pass to 2 lanes	8,157	16%	0%	0%	0%	27%	57%	2,202	0	108	0	0	2,094	0		
33.3	Harmony Rd #33	Rossland Rd #28 to Taunton Rd #4	Widen from 3 to 5 lanes, including structure widening	10,200	6%	0%	0%	0%	30%	64%	3,060	0	0	180	2,880	0	0		
33.4	Harmony Rd #33	Taunton Rd #4 to Conlin Rd	Widen from 2 to 5 lanes	16,446	17%	0%	0%	0%	27%	56%	4,440	1,823	135	243	95	0	2,145		
36.1	Hopkins St #36	Consumers Dr #25 to Dundas St (Hwy 2)	Widen from 2 to 3 lanes, with new CPR grade separation	14,281	6%	0%	0%	0%	30%	64%	4,284	0	0	0	0	0	4,284		
37.1	Finch Av #37	Aliona Rd #27 to Brock Rd #1	Widen from 2 to 3 lanes	22,057	36%	0%	0%	0%	20%	44%	4,411	0	0	0	0	100	4,311		
38.1	Whites Rd #38	Bayly St #22 to Kingston Rd #Reg Hwy 2	Widen from 5 to 7 lanes, including structure widening	12,088	3%	0%	0%	0%	31%	66%	3,747	47	202	543	0	0	2,957		
38.2	Whites Rd #38	Kingston Rd #Reg Hwy 2 to Finch Av #37	Widen from 5 to 7 lanes, including structure widening	18,215	6%	0%	0%	0%	30%	64%	5,465	45	195	525	0	0	4,700		
38.3	Whites Rd #38	Finch Av #37 to 3rd Concession Rd	Widen from 2 to 6 lanes, with new CPR grade separation	20,687	14%	0%	0%	0%	8%	17%	1,655	0	0	0	0	0	1,655		
38.4	Whites Rd #38	3rd Concession Rd to Taunton Rd #4	Construct new alignment to 6 lanes, with new bridge crossing of West Duffins Creek	70,662	1%	0%	0%	0%	32%	67%	22,612	0	0	11,200	0	0	11,412		
38.5	Whites Rd #38	Taunton Rd #4 to Whitevale Rd	Construct new alignment to 6 lanes	13,415	0%	0%	0%	0%	32%	68%	4,293	0	0	4,293	0	0	0		
38.6	Whites Rd #38	Whitevale Rd to Hwy 7	Construct new alignment to 4 lanes	7,021	0%	0%	0%	0%	32%	68%	2,247	0	0	2,247	0	0	0		
38.7	Whites Rd #38	Whitevale Rd to Hwy 7	Widen from 4 to 6 lanes	4,427	26%	0%	0%	0%	24%	50%	1,062	0	0	0	0	0	1,062		
41.1	Salem Rd #41	Rossland Rd #28 to Taunton Rd #4	Final surface asphalt	1,000	0%	0%	0%	0%	32%	68%	320	0	320	0	0	0	0		
52.1	Thornton Rd #52	Champlain Av #25 to King St (Hwy 2)	Widen from 2 to 3 lanes, with new CPR grade separation	14,414	7%	0%	0%	0%	30%	63%	4,324	0	0	150	150	30	3,994		
53.1	Stevenson Rd #53	CPR Belleville to Bond St	Widen from 4 to 5 lanes	6,137	8%	0%	0%	0%	29%	63%	1,760	0	0	0	145	145	1,490		
53.2	Stevenson Rd #53	Bond St to Rossland Rd #28	Widen from 3 to 5 lanes	12,801	35%	0%	0%	0%	21%	44%	2,688	0	0	0	105	105	2,478		
57.1	Waverly Rd/Martin Rd #57	Baseline Rd to King St #Reg Hwy 2	Widen from 2 to 4 lanes, including structure widening	13,851	20%	0%	0%	0%	26%	54%	3,601	130	130	26	78	780	2,457		
57.2	Martin Rd #57	King St #Reg Hwy 2 to Nash Rd	Widen from 2 to 4 lanes	7,087	12%	0%	0%	0%	10%	22%	709	0	0	0	0	0	709		
58.1	Manning Rd/Adeleide Av #58	Garrard Rd to Thornton Rd #52	Construct new connection to 3 lanes, with new crossing of Corbett Creek	4,629	1%	0%	0%	0%	32%	67%	1,481	0	0	0	122	13	1,347		
58.2	Adeleide Av #58	Townline Rd #55 to Trulls Rd	Construct new bridge crossing of Farewell Creek and construct new 3 lane road (segments). *New road (segments) to be constructed by others with funding provided by the Region to widen from 2 to 3 lanes.	24,705	0%	0%	0%	0%	32%	68%	7,905	0	0	0	0	0	7,905		
59.1	Gibb St #59	E. of Stevenson Rd #53 to Simcoe St #2	Widen from 3 to 4 lanes	17,668	18%	0%	0%	0%	26%	56%	4,594	208	91	130	221	390	3,554		
59.2	Gibb St/Olive Av #59	Interconnection from Simcoe St #2 to Ritson Rd #16	Construct new connection to 4 lanes	16,683	3%	43%	0%	0%	17%	37%	2,836	0	85	85	85	0	2,496		
99.1	Whitevale Rd realignment	Brook Rd #11 to Golf Club Rd	Construct new connection to 4 lanes	36,119	0%	0%	0%	0%	32%	68%	11,558	0	0	11,558	0	0	0		
99.2	Whitevale Rd realignment	York/Durham Line to Golf Club Rd	Construct new connection to 2 lanes, including new structure	39,041	0%	0%	0%	0%	32%	68%	12,493	0	0	0	0	0	12,493		
102.2	Kingston Rd #Reg Hwy 2	Pickering/Toronto Boundary to Whites Rd #38	Widen from 5 to 7 lanes, including structure widening	18,821	5%	0%	0%	0%	30%	65%	5,646	0	0	0	0	0	5,646		
102.3	Kingston Rd #Reg Hwy 2	Whites Rd #38 to Notion Rd	Widen from 5 to 7 lanes, including new structure	37,392	7%	0%	0%	0%	30%	63%	11,218	0	0	0	0	0	11,218		
102.4	Kingston Rd #Reg Hwy 2	Westney Rd #31 to Hwy 407 west link	Widen from 5 to 7 lanes	28,364	9%	0%	0%	0%	29%	62%	8,225	0	0	0	484	0	7,741		
102.5	King St #Reg Hwy 2	Townline Rd #55 to Courtice Rd #34	Improve corridor	2,729	50%	0%	0%	0%	16%	34%	437	0	0	0	0	0	437		
112.1	Brock St #Reg Hwy 12	Rossland Rd #28 to Taunton Rd #4	Widen from 3 to 5 lanes	11,650	13%	0%	0%	0%	28%	59%	3,262	168	0	0	84	3,010	0		
112.2	Baldwin St #Reg Hwy 12	Taunton Rd #4 to Garden St	Widen from 2 to 5 lanes	15,234	12%	0%	0%	0%	28%	60%	4,266	0	0	0	140	140	3,986		
147.1	Reg Hwy 47	York/Durham Line #30 to Goodwood Rd #21	Widen from 2 to 4 lanes, with re-alignment at Goodwood	13,064	0%	52%	0%	0%	15%	33%	1,960	0	0	0	0	0	1,960		
Sub-Total (Widenings, New Connections and Corridor Improvements)				1,072,261	104,948	90,331	0				280,644	6,758	9,366	52,148	10,091	11,686	98,085		
																	92,511		

TABLE E.2 - REGIONAL ROADS: CAPITAL COST SUMMARY - NON-RESIDENTIAL (YEAR 2013 - 2027)																					
DEVELOPMENT RELATED NON-RESIDENTIAL SHARE SERVICE: REGIONAL ROADS										NET NON-RESIDENTIAL GROWTH COST (2013 Estimated Cost)											
ITEM #	ROAD NAME	LIMITS	DESCRIPTION	LOCATION	GROSS COST (2013 Estimated Cost)	BENEFIT TO EXISTING DEVELOP.		POST PERIOD BENEFIT	GRANTS, SUBSIDY & OTHER	DEVELOPMENT RELATED		BY YEAR									
						%	%			NON- RESID.	RESID.	TOTAL	2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027		
						\$ 000's	%	%	%	%	%	\$ 000's									
Widenings, New Connections and Corridor Improvements																					
Intersection Improvements and Signal Installations																					
ITEM #																					
1.1	Brook Rd #1 at Taunton Rd #4				1,240	10%	0%	0%	0%	29%	61%	360	0	0	0	0	0	0	360	0	
1.2	Brook Rd #1 at Concession 7				372	10%	0%	0%	0%	29%	61%	108	0	0	0	0	0	0	108	0	
1.3	Brook Rd #1 at Goodwood Rd #21				1,860	10%	0%	0%	0%	29%	61%	539	0	0	0	0	0	0	539	0	
1.4	Simcoe St #2 at Conlin Rd				2,500	10%	0%	80%	0%	3%	7%	75	8	8	60	0	0	0	0	0	
1.5	Simcoe St #2 at Coates Rd				744	10%	0%	0%	0%	29%	61%	216	0	0	0	0	0	0	216	0	
1.6	Winchester Rd #3 at Thornton Rd #52				1,000	10%	0%	0%	0%	29%	61%	295	0	10%	0	290	0	0	0	0	
1.7	Winchester Rd #3 at Harmony Rd #33				4,900	10%	0%	75%	0%	5%	10%	245	45	200	0	0	0	0	0	0	
1.8	Colinus Rd #3 at Grandview St				50	10%	0%	0%	0%	29%	61%	14	0	0	0	0	0	0	14	0	
1.9	Taunton Rd #4 at Anderson St				372	10%	0%	0%	0%	29%	61%	108	0	0	0	0	0	0	108	0	
1.10	Taunton Rd #4 at Grandview St				290	10%	0%	0%	0%	29%	61%	84	12	15	58	0	0	0	0	0	
1.11	Taunton Rd #4 at Enfield Rd #34				3,690	10%	0%	0%	0%	29%	61%	1,067	0	58	87	87	116	719	0	0	
1.12	Taunton Rd #4 at Coutice Rd #34				1,240	10%	0%	0%	0%	29%	61%	360	0	0	0	0	0	0	360	0	
1.13	Taunton Rd #4 at Region Rd #57				3,720	10%	0%	0%	0%	29%	61%	1,079	0	0	0	0	0	0	1,079	0	
1.14	Taunton Rd #4 at Darlington/Clarke Townline #42				1,860	10%	0%	0%	0%	29%	61%	539	0	0	0	0	0	0	539	0	
1.15	Ritson Rd #16 at Beatrice St				0%	10%	0%	0%	0%	29%	61%	72	0	0	0	0	0	0	72	0	
1.16	Mosport Rd #20 at Region Rd # 57				248	10%	0%	0%	0%	29%	61%	72	0	0	0	0	0	0	72	0	
1.17	Goodwood Rd #21 at 7th Concession				372	10%	0%	0%	0%	29%	61%	108	0	0	0	0	0	0	108	0	
1.18	Bayly St #22 at Liverpool Rd #29				3,720	10%	0%	0%	0%	29%	61%	1,079	0	0	0	0	0	0	1,079	0	
1.19	Bayly St #22 at Sandy Beach Rd				124	10%	0%	0%	0%	29%	61%	36	0	0	0	0	0	0	36	0	
1.20	Lake Ridge Rd #23/3rd Concession #13				2,800	10%	0%	0%	0%	29%	61%	812	0	0	0	0	812	0	0	0	
1.21	Lake Ridge Rd #23 at Region Rd #12				1,800	10%	0%	0%	0%	29%	61%	522	0	58	87	87	290	0	0	0	
1.22	Thickson Rd #26 at Rossland Rd #28				496	10%	0%	0%	0%	29%	61%	144	0	0	0	0	0	0	144	0	
1.23	Rossland Rd #28 at Salem Rd #41				1,240	10%	0%	0%	0%	29%	61%	360	0	0	0	0	0	0	360	0	
1.24	Rossland Rd #28 at Cochrane St #43				124	10%	0%	0%	0%	29%	61%	36	0	10%	0	0	0	0	36	0	
1.25	Rossland Rd #28 at Garden St				1,352	10%	0%	0%	0%	29%	61%	392	0	0	0	0	0	0	392	0	
1.26	Rossland Rd #28 at Somerville St				1,860	10%	0%	0%	0%	29%	61%	539	0	0	0	0	0	0	539	0	
1.27	Rossland Rd #28 at Mary St				1,860	10%	0%	0%	0%	29%	61%	539	0	0	0	0	0	0	539	0	
1.28	Townline Rd #30 at Region Rd 8				74	10%	0%	0%	0%	29%	61%	22	0	10%	0	0	0	0	22	0	
1.29	Townline Rd #30 and Vivian Rd				50	10%	0%	0%	0%	29%	61%	14	0	0	0	0	0	0	14	0	
1.30	Townline Rd #30 at Sandford Rd #11				50	10%	0%	0%	0%	29%	61%	14	0	0	0	0	0	0	14	0	
1.31	Westney Rd #31 at Harwood Av				620	10%	0%	0%	0%	29%	61%	180	0	0	0	0	0	0	180	0	
1.32	Westney Rd #31 at Monarch Av				124	10%	0%	0%	0%	29%	61%	36	0	10%	0	0	0	0	36	0	
1.33	Westney Rd #31 at Finley Av				248	10%	0%	0%	0%	29%	61%	72	0	0	0	0	0	0	72	0	
1.34	Westney Rd #31/Richie Av - Bramwell Drive				310	10%	0%	0%	0%	29%	61%	90	0	0	0	0	0	0	90	0	
1.35	Westney Rd #31at 5th Concession				2,480	10%	0%	0%	0%	29%	61%	719	0	10%	0	0	0	0	719	0	
1.36	Hamony Rd #33 at Dloor SJ/401 Ramp				620	10%	0%	0%	0%	29%	61%	180	0	0	0	0	0	0	180	0	
1.37	Henry St #45 at Burns St				500	10%	0%	0%	0%	29%	61%	145	145	0	0	0	0	0	0	0	
1.38	Salem Rd #41at Mandrake St				290	10%	0%	0%	0%	29%	61%	84	12	15	58	0	0	0	0	0	
1.39	Steverson Rd #53 at Phillip Murray Av #52				372	10%	0%	0%	0%	29%	61%	108	0	0	0	0	0	0	108	0	
1.40	Townline Rd #55 at Price Chopper Plaza Entrance				124	10%	0%	0%	0%	29%	61%	36	0	0	0	0	0	0	36	0	
1.41	Townline Rd #55 at Pebblistone Rd				124	10%	0%	0%	0%	29%	61%	36	0	0	0	0	0	0	36	0	
1.42	Martin Rd #57 at Stevens Rd				124	10%	0%	0%	0%	29%	61%	72	0	10%	0	0	0	0	72	0	
1.43	Region Rd #57 at Concession 6				1,240	10%	0%	0%	0%	29%	61%	360	0	0	0	0	0	0	360	0	
1.44	Region Rd #57 at Concession 7				1,860	10%	0%	0%	0%	29%	61%	539	0	0	0	0	0	0	539	0	
1.45	Region Rd #57 at Region Rd #3				2,140	10%	0%	0%	0%	29%	61%	621	0	0	0	87	87	87	360	0	
1.46	Kingston Rd at Denmar Rd				310	10%	0%	0%	0%	29%	61%	90	0	10%	0	0	0	0	90	0	
1.47	King St at Maple Grove				372	10%	0%	0%	0%	29%	61%	108	0	0	0	0	0	0	108	0	
1.48	King St at Lambis Rd				372	10%	0%	0%	0%	29%	61%	108	0	0	0	0	0	0	108	0	
1.49	King St at Rudell Rd				205	10%	0%	0%	0%	29%	61%	59	0	0	0	0	0	0	59	0	
1.50	King St at Arthur/Brookhouse St				205	10%	0%	0%	0%	29%	61%	59	0	0	0	0	0	0	59	0	
1.51	Brook St at Victoria St				3,720	10%	0%	0%	0%	29%	61%	1,079	0	0	0	0	0	0	1,079	0	
1.52	Brook St at Manning Rd				992	10%	0%	0%	0%	29%	61%	288	0	0	0	0	0	0	288	0	
1.88	Undefined Future Intersection Improvement Projects				15,000	10%	0%	0%	0%	29%	61%	4,590	0	0	0	0	0	0	0	4,350	0
1.99	Signal Installation Program				21,975	10%	0%	0%	0%	29%	61%	6,373	457	377	392	392	406	2,175	2,175	0	
Sub-Total (Intersection Improvements and Signal Installation)					94,695	9,470	0	5,687				25,636	677	730	1,119	1,465	899	14,222	6,525		

TABLE E.2 - REGIONAL ROADS: CAPITAL COST SUMMARY - NON-RESIDENTIAL (YEAR 2013 - 2027)																			
DEVELOPMENT RELATED NON-RESIDENTIAL SHARE SERVICE: REGIONAL ROADS				GROSS COST (2013 Estimated Cost)	BENEFIT TO EXISTING DEVELOP.	POST PERIOD BENEFIT	GRANTS, SUBSIDY & OTHER	DEVELOPMENT RELATED		NET NON-RESIDENTIAL GROWTH COST (2013 Estimated Cost)									
ROAD NAME		LIMITS	DESCRIPTION					NON- RESID.	RESID.	BY YEAR									
ITEM #					%	%	%	%			2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027		
Widenings, New Connections and Corridor Improvements																			
Highway 401 Interchanges and Grade Separations																			
401.2	LOCATION	DESCRIPTION			7,000	17%	0%	33%	16%	34%	1,120	0	0	0	0	0	1,120	0	
401.3	Lake Ridge Rd #23	Construct new interchange at Lake Ridge Rd #23			12,000	0%	0%	0%	32%	68%	3,840	0	0	0	0	0	3,840	0	
Hopkins St		Construct new Hopkins St overpass																	
Sub-Total (Highway 401 Interchanges and Grade Separations)					19,000	1,167	0	2,333			4,960	0	0	0	0	0	4,960	0	
Other Development Charge Component Works																			
ITEM #	DESCRIPTION																		
0.1	Undefined Misc. Engineering Activities			6,620	10%	0%	0%	29%	61%	1,920	102	122	131	131	131	653	653		
0.2	Undefined Misc. Property Acquisition			1,500	10%	0%	0%	29%	61%	435	29	29	29	29	29	145	145		
0.3	Undefined Misc. Landscaping Projects			1,050	10%	0%	0%	29%	61%	305	20	20	20	20	20	102	102		
0.4	Contingencies Development Related			4,500	10%	0%	0%	29%	61%	1,305	87	87	87	87	87	435	435		
0.5	Transportation Master Plan Reviews			1,500	0%	0%	0%	32%	68%	480	32	32	32	32	32	160	160		
0.6	Intelligent Transportation System Projects			8,515	10%	0%	0%	29%	61%	2,469	125	90	104	106	160	798	1,088		
0.7	Maintenance Facilities and Vehicles Capital Allowance			7,785	10%	0%	0%	29%	61%	2,258	641	232	297	154	270	599	65		
0.8	Regional Share of Services for Residential Subdivision Development			4,450	0%	0%	0%	32%	68%	1,424	80	96	96	96	96	480	480		
Sub-Total (Other Development Charge Component Works)					35,920	2,997	0	0		10,595	1,115	708	796	654	824	3,371	3,127		
Non-Development Charge Component Works																			
ITEM #	DESCRIPTION																		
0.9	Road and Storm Sewer Reconstruction Projects:																		
	3rd Concession Rd #13	Lake Ridge Rd #33 - 1.5 km west of Highway 12		9,800	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
	Ritson Rd #16	Reconstruct and geometric improvements		1,500	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
	Henry St #45	Reconstruct to 4 lanes		6,800	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
	Undefined Future Rd and Storm Sewer Reconstruction Projects	Reconstruct to 2 lanes		13,223	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
0.10	Road Resurfacing and Rehabilitation Program			336,240	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
0.11	Structure Replacement Projects:																		
	Region Rd #6, Saintfield Rd. Bridge over Layton River 4 km East of Highway 12			2,090	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
	Region Rd #8, Norquon Bridge, 0.45 km West of Highway 12			1,450	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
	Region Rd #13 McCully Bridge, 3rd Concession Rd, 1.0 km West of Highway 12			200	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
	Main St #17 at Onono Creek 1.4 km south of Taunton Rd #4			3,400	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
	Undefined Future Structure Replacement Projects			50,000	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
0.12	Structure Rehabilitation Program			68,825	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
0.13	Traffic Control Signal and System Modernization and Upgrade Programs			19,205	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
0.14	Roadway Protection and Signing Programs			9,000	100%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	
Sub-Total (Non-Development Charge Component Works)					521,733	521,733	0	0		321,835	8,550	10,804	54,063	12,210	13,409	120,637	102,162		
TOTAL OF REGION					1,743,609	640,315	90,331	8,021	0	0	0	0	0	0	0	0	0	0	

Table E.3
RESIDENTIAL ROADS
Region-Wide Development Charge (With Seaton)
Cash Flow Calculation of the Residential Development Charge
(\$000's)

Year	1 DC Reserve Fund Opening Balance	2 Development Related Expenditures	3 Development Related Expend. Inflated @ 3.5%	4 Equivalent Single Detached Units	5 Unit Charge Inflated @ 3.5%	6 Anticipated Revenue	7 Surplus (Deficit)	8 Int. Earnings 3.0%debt rate 6.00%	9 DC Reserve Fund Closing Bal.
2013-14	24,340	18,080	18,080	3,795	7,908	30,012	36,272	1,088	37,360
2014-15	37,360	23,006	23,811	4,605	8,185	37,692	51,241	1,537	52,778
2015-16	52,778	114,614	122,777	5,420	8,471	45,915	(24,084)	(1,445)	(25,529)
2016-17	(25,529)	25,772	28,574	5,420	8,768	47,523	(6,580)	(395)	(6,975)
2017-18	(6,975)	28,426	32,619	5,420	9,075	49,186	9,591	288	9,879
2018-19	9,879	51,065	60,650	5,650	9,392	53,068	2,297	69	2,366
2019-20	2,366	51,065	62,772	5,650	9,721	54,925	(5,482)	(329)	(5,811)
2020-21	(5,811)	51,065	64,969	5,650	10,061	56,847	(13,933)	(836)	(14,769)
2021-22	(14,769)	51,065	67,243	5,650	10,414	58,837	(23,175)	(1,391)	(24,566)
2022-23	(24,566)	51,065	69,597	5,650	10,778	60,896	(33,266)	(1,996)	(35,262)
2023-24	(35,262)	43,576	61,469	6,173	11,155	68,862	(27,869)	(1,672)	(29,541)
2024-25	(29,541)	43,576	63,620	6,173	11,546	71,272	(21,889)	(1,313)	(23,203)
2025-26	(23,203)	43,576	65,847	6,173	11,950	73,767	(15,283)	(917)	(16,200)
2026-27	(16,200)	43,576	68,152	6,173	12,368	76,348	(8,003)	(480)	(8,483)
2027-28	(8,483)	43,576	70,537	6,173	12,801	79,021	0	0	0
TOTAL		683,107	880,718	83,775		864,170		(7,792)	

	Single / Semi Detached	Medium Density Multiple	2 Bedroom Apartment	1 Bedroom Apartment
DC/Unit	\$7,908	\$6,354	\$4,594	\$2,994

Table E.4
COMMERCIAL ROADS
Development Charge (With Seaton)
Cash Flow Calculation of the Commercial Development Charge
(\$000's)

Year	1 DC Reserve Fund Opening Balance	2 Development Related Exp Total	3 Development Related Exp Commercial ¹	4 Development Related Exp. Inflated @ 3.5%	5 Estimated Development m ² Commercial	6 Charge m ² inflated 3.5%	7 Anticipated Revenue	8 Surplus (Deficit)	9 Int. Earnings 3.0%/debt rate 6.00%	10 DC Reserve Fund Closing Bal.
2013-14	11,792	8,550	2,672	2,672	96,085	59.81	5,747	14,867	446	15,313
2014-15	15,313	10,804	3,376	3,494	110,600	61.91	6,847	18,666	560	19,226
2015-16	19,226	54,063	16,895	18,098	125,120	64.08	8,017	9,145	274	9,419
2016-17	9,419	12,210	3,816	4,230	125,120	66.32	8,298	13,487	405	13,891
2017-18	13,891	13,409	4,190	4,808	125,120	68.64	8,588	17,671	530	18,201
2018-19	18,201	24,127	7,540	8,955	108,944	71.04	7,740	16,986	510	17,495
2019-20	17,495	24,127	7,540	9,268	108,944	73.53	8,010	16,237	487	16,724
2020-21	16,724	24,127	7,540	9,593	108,944	76.10	8,291	15,422	463	15,885
2021-22	15,885	24,127	7,540	9,928	108,944	78.76	8,581	14,538	436	14,974
2022-23	14,974	24,127	7,540	10,276	108,944	81.52	8,881	13,579	407	13,986
2023-24	13,986	20,432	6,385	9,007	73,916	84.37	6,237	11,216	336	11,553
2024-25	11,553	20,432	6,385	9,322	73,916	87.33	6,455	8,685	261	8,946
2025-26	8,946	20,432	6,385	9,648	73,916	90.38	6,681	5,978	179	6,158
2026-27	6,158	20,432	6,385	9,986	73,916	93.55	6,915	3,086	93	3,179
2027-28	3,179	20,432	6,385	10,336	73,916	96.82	7,157	0	0	0
Total		321,835	100,573	129,623	1,496,345		112,444		5,387	

	Commercial
Development Charge/m ²	\$59.81
Development Charge/sq ft	\$5.56
Proposed rate/sq ft	\$5.56

Notes

(1) The Commercial expenditures are approximately 31.3% of total non-residential expenditures based on the commercial share of non-residential capital costs outlined on page E-6 in Appendix E

Table E.5
INDUSTRIAL ROADS
Development Charge (With Seaton)
Cash Flow Calculation of the Industrial Development Charge
(\$000's)

Year	1	2	3	4	5	6	7	8	9	10
	DC Reserve Fund Opening Balance	Development Related Exp Total	Development Related Exp Industrial ¹	Development Related Exp. Inflated @ 3.5%	Estimated Development m ² Industrial	Charge m ² inflated 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%/debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	1,345	8,550	4,809	4,809	333,825	35.83	11,962	8,498	255	8,752
2014-15	8,752	10,804	6,077	6,290	386,195	37.09	14,323	16,785	504	17,289
2015-16	17,289	54,063	30,410	32,576	438,570	38.38	16,835	1,547	46	1,593
2016-17	1,593	12,210	6,868	7,615	438,570	39.73	17,424	11,402	342	11,744
2017-18	11,744	13,409	7,543	8,655	438,570	41.12	18,034	21,123	634	21,756
2018-19	21,756	24,127	13,572	16,119	392,575	42.56	16,707	22,345	670	23,015
2019-20	23,015	24,127	13,572	16,683	392,575	44.05	17,292	23,624	709	24,333
2020-21	24,333	24,127	13,572	17,267	392,575	45.59	17,897	24,963	749	25,712
2021-22	25,712	24,127	13,572	17,871	392,575	47.18	18,524	26,364	791	27,155
2022-23	27,155	24,127	13,572	18,497	392,575	48.84	19,172	27,830	835	28,665
2023-24	28,665	20,432	11,493	16,212	208,420	50.55	10,535	22,988	690	23,677
2024-25	23,677	20,432	11,493	16,780	208,420	52.31	10,903	17,801	534	18,335
2025-26	18,335	20,432	11,493	17,367	208,420	54.15	11,285	12,253	368	12,621
2026-27	12,621	20,432	11,493	17,975	208,420	56.04	11,680	6,326	190	6,515
2027-28	6,515	20,432	11,493	18,604	208,420	58.00	12,089	0	0	0
Total		321,835	181,032	233,321	5,040,705		224,661		7,315	

	Industrial
Development Charge/m ²	\$35.83
Development Charge/sq ft	\$3.33
Proposed rate/sq ft	\$3.33

Notes

(1) The Industrial expenditures are approximately 56.2% of total non-residential expenditures based on the industrial share of non-residential capital costs outlined on page E-6 in Appendix E

Table E.6
INSTITUTIONAL ROADS
Development Charge (With Seaton)
Cash Flow Calculation of the Institutional Development Charge
(\$000's)

Year	1	2	3	4	5	6	7	8	9	10
DC Reserve Fund Opening Balance	DC Reserve Fund Opening Balance	Development Related Exp Total	Development Related Exp Institutional ¹	Development Related Exp Inflated @ 3.5%	Estimated Development Institutional m ²	Charge m ² inflated 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%/debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	137	8,550	1,069	1,069	37,840	63.24	2,393	1,461	44	1,505
2014-15	1,505	10,804	1,351	1,398	44,655	65.45	2,923	3,030	91	3,121
2015-16	3,121	54,063	6,758	7,239	51,470	67.74	3,487	(632)	(38)	(669)
2016-17	(669)	12,210	1,526	1,692	51,470	70.11	3,609	1,247	37	1,285
2017-18	1,285	13,409	1,676	1,923	51,470	72.57	3,735	3,096	93	3,189
2018-19	3,189	24,127	3,016	3,582	44,031	75.11	3,307	2,914	87	3,002
2019-20	3,002	24,127	3,016	3,707	44,031	77.74	3,423	2,717	82	2,799
2020-21	2,799	24,127	3,016	3,837	44,031	80.46	3,543	2,504	75	2,579
2021-22	2,579	24,127	3,016	3,971	44,031	83.27	3,667	2,275	68	2,343
2022-23	2,343	24,127	3,016	4,110	44,031	86.19	3,795	2,027	61	2,088
2023-24	2,088	20,432	2,554	3,603	35,751	89.20	3,189	1,675	50	1,725
2024-25	1,725	20,432	2,554	3,729	35,751	92.33	3,301	1,297	39	1,336
2025-26	1,336	20,432	2,554	3,859	35,751	95.56	3,416	893	27	920
2026-27	920	20,432	2,554	3,994	35,751	98.90	3,536	461	14	475
2027-28	475	20,432	2,554	4,134	35,751	102.36	3,660	0	0	0
Total		321,835	40,229	51,849	635,815		50,982		730	

	Institutional
Development Charge/m ²	\$63.24
Development Charge/sq ft	\$5.87
Proposed rate/sq ft	\$5.87

Notes

(1) The Institutional expenditures are approximately 12.5% of total expenditures based on the institutional share of non-residential capital costs outlined on page E-6 in Appendix E

APPENDIX F

REGIONAL WATER SUPPLY SERVICE LEVELS, CAPITAL COSTS AND DC CALCULATIONS

APPENDIX F – REGIONAL WATER SUPPLY

1.0 INTRODUCTION

This appendix provides the analysis completed to establish the Regional Water Supply component of the Development Charge in compliance with the DCA and Ontario Regulation 82/98. The appendix presents:

- An examination of the level of service;
- A forecast of capital works expenditures required to address the increase in need for Regional water supply service attributable to the anticipated new development in the urban areas over the period January 1, 2013 – December 31, 2027; and
- The calculation of the development charge quantum.

2.0 SERVICE LEVELS

The following table lists the historical service standards provided for water supply by the Region of Durham. The standards are expressed in terms of design criteria, legislation or capacity requirements as issued by the Ministry of the Environment or any other appropriate standard setting body. The table also reflects other service criteria adopted by the Regional Works Department.

REGION OF DURHAM WATER SUPPLY STANDARDS	
Service Component	Service Standards Applied
Purification Plants	• Design criteria based on historical flow data for the individual municipality. A range for the maximum day flows or 681-999 litres/capita/day is used which includes residential, industrial, commercial and institutional demands • Treatment based on MOE regulations, MOE guidelines and is site specific. MOE regulations, policies and directives are used in order to establish the final Certificate of Approval (C of A).
Reservoirs	• Based on MOE guidelines and system design criteria to meet the storage requirements for fire, equalization and emergency conditions using storage and reserve pumping capacity from water supply plants, if available.
Pumping Stations	• Based on MOE and Region of Durham design guidelines and standards

The expenditures described in the capital works forecast presented in the following Tables F.1 and F.2 provide a similar level of service to that indicated in the table above.

3.0 CAPITAL WORKS FORECAST

3.1 Development of Capital Works Program

A fifteen-year capital works program was prepared for the period 2013-2027, which identifies the projected expenditures, expressed in 2013 dollars, required to address the increase in need for Regional water supply service attributable to the anticipated development (Appendix A). For the purposes of the Development Charge calculation, this forecast has been lagged to match the time period of the development forecasts (i.e. July 1, 2013 to June 30, 2028).

The program shown in Tables F.1 and F.2 and Figures F.1 to F.8 is based on information currently available on the capacity of the existing Regional water supply system, combined with an assessment of the improvements and expansions required to accommodate development over the next fifteen years. It includes the construction of works required to correct existing deficiencies in the system, and plant expansions, storage reservoirs, pumping stations, feeder mains and distribution system extensions required as a result of both new development and redevelopment within the urban areas.

3.2 Sequential Development

The basic premise underlying the forecast of capital works requirements is that development will be sequential in nature with the progressive extension/ expansion of the Regional water supply system occurring as development proceeds within the urban areas.

3.3 Forecast Periods

Tables F.1 and F.2 divide the projected capital works program into three forecast periods. The first five-year period (2013-2017) is similar to the Region's Annual Capital Budget and Four Year Forecast for the Regional water supply system. This forecast is subject to review and approval by Regional Council on an annual basis. The works included in the second (2018-2022) and third periods (2023-2027) have been assigned to these time frames based on information currently available on existing system capacities, operations experience and estimates of future demand.

The timing of implementation of the various projects identified in the forecasts and associated cost estimates are preliminary in nature. Project priorities, construction timing and cost estimates will be reviewed on an ongoing basis and will be subject to review and approval on an annual basis by Regional Council.

3.4 Allocation of Capital Costs

Tables F.1 and F.2 include works required to correct existing system deficiencies, which will benefit both existing and new development, as well as system improvements and expansions required solely to support growth during the forecast period. An assessment has been carried out to allocate the total cost of the various projects contained in the forecast between existing development (non-growth), new residential development (Table F.1), and new non-residential development (Table F.2). This assessment distributes the capital cost of the projects contained in the forecast based on the demand imposed on the system. Demands were assessed on either a flow or population equivalent basis, depending upon the situation.

In addition, the tables identify deductions in accordance with the Development Charges Act, 1997 for:

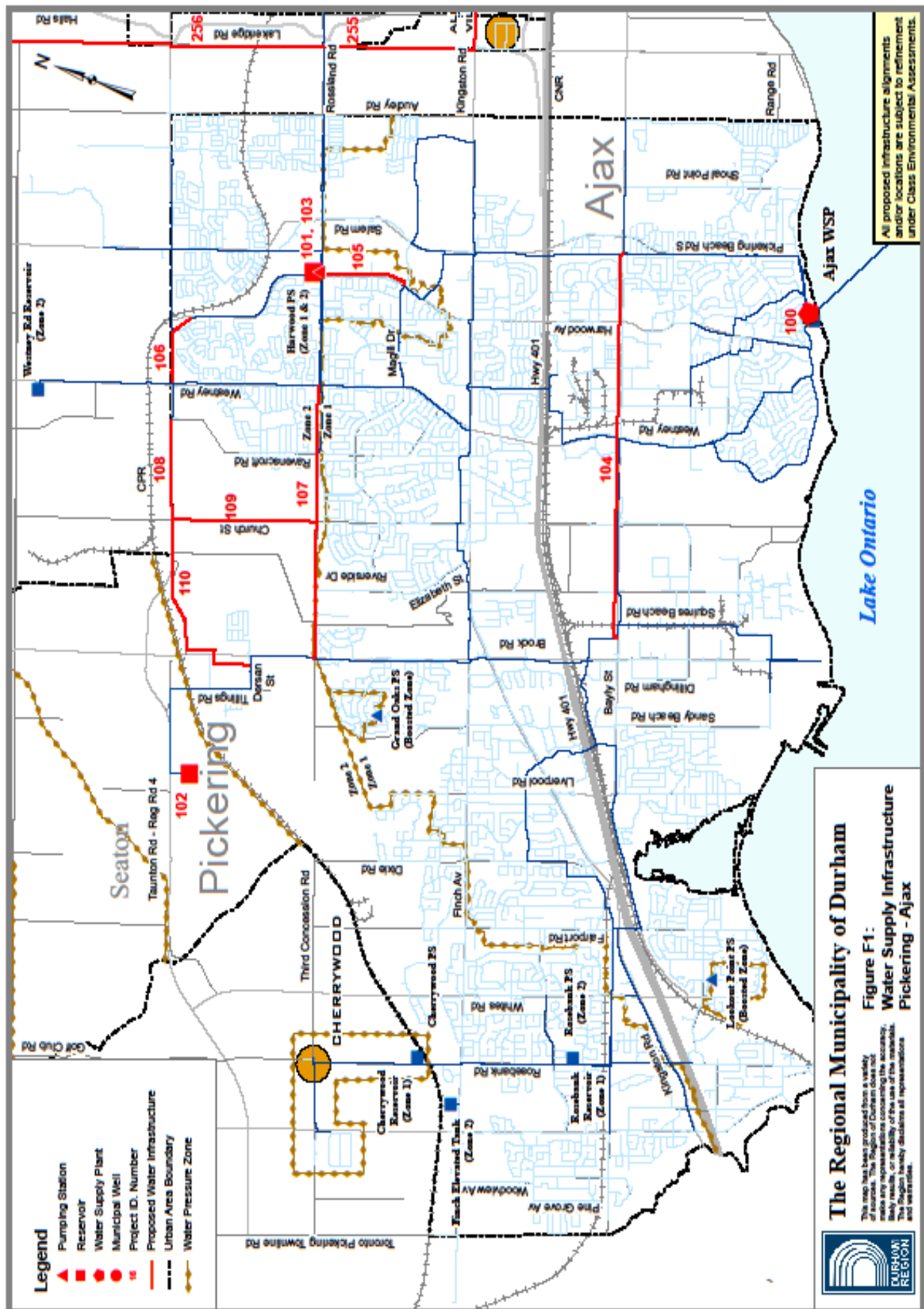
- "Benefit to Existing Development", which is the anticipated value of new capital works attributable to existing development. This deduction is assessed on a project by project basis and is primarily applicable to reconstruction, rehabilitation and replacement type projects;
- "Post Period Benefit", which is the value of anticipated surplus capacity at the end of the forecast period to be recovered from subsequent development. Deductions are made for specifically oversized capital works consisting of water supply plants, reservoirs and pumping stations;
- "Grants, Subsidy and Other", which is the funding anticipated or received from sources other than the Regional Municipality of Durham; and
- "Seaton" and "Federal Lands", the water supply infrastructure to service the Seaton and Federal Lands have been isolated and are not included in the Region Wide Development Charge. The Seaton share is to be covered via a separate area specific development charge by-law.

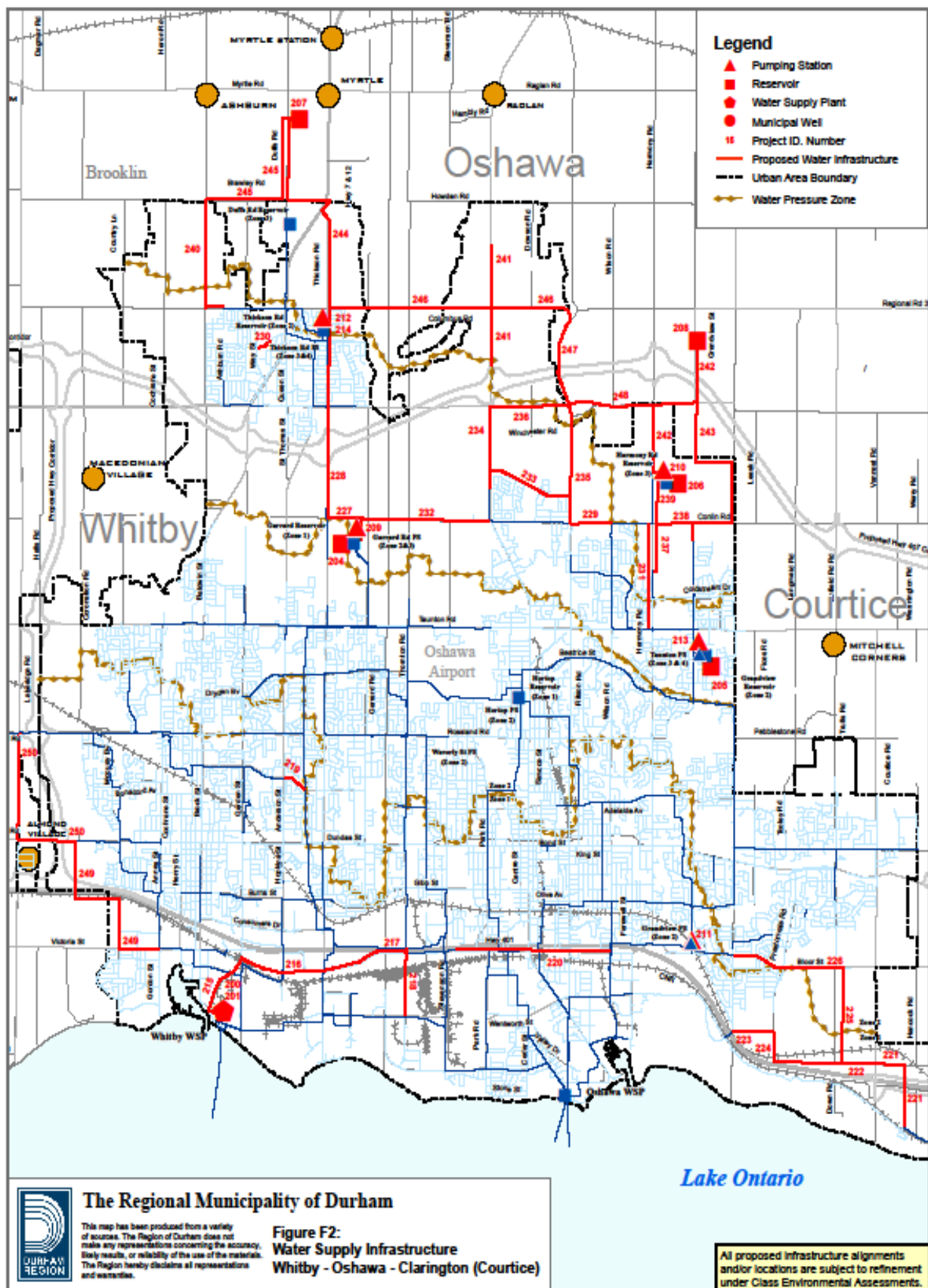
The following average percentages have been used in allocating the eligible growth-related capital costs between new residential and new non-residential development in Tables F.1 and F.2. The attributions, which are based on data obtained from actual water consumption records, plant operations records, and conventional design criteria, reflect relative utilization of eligible growth-related capital costs.

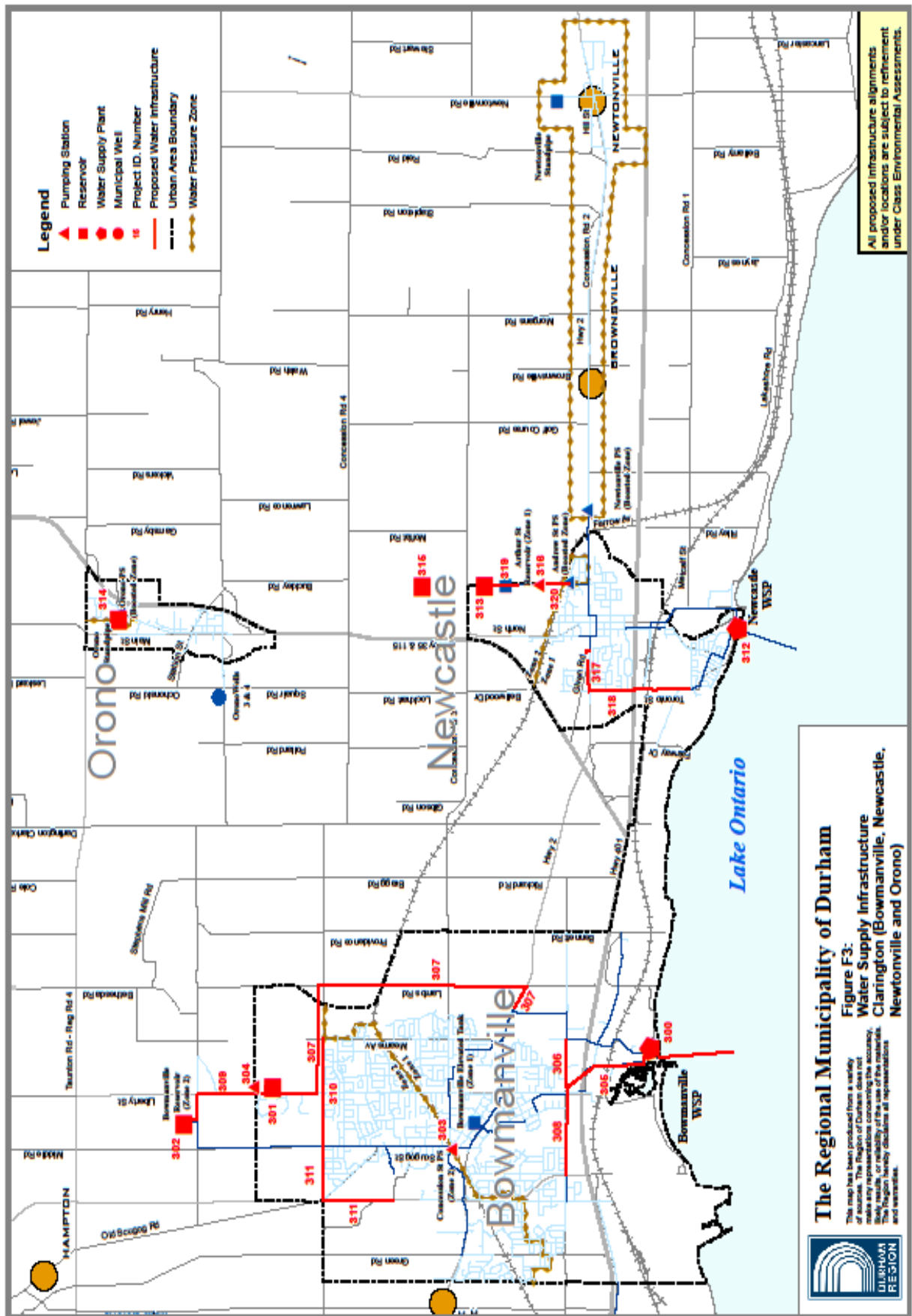
SUMMARY OF GROWTH RELATED CAPITAL UTILIZATION FOR RESIDENTIAL AND NON-RESIDENTIAL PURPOSES BY TYPE OF CAPITAL EXPENDITURE	
Land Use Category	Percentage of Capital Attributable to Growth
Residential	
- Water Supply Plants	64.3
- Other	87.8
Non-Residential	
Water Supply Plants (All Non-res)	
i) Industrial	26.6
ii) Commercial	8.0
iii) Institutional	1.1
Other (All non-res)	
i) Industrial	9.1
ii) Commercial	2.7
iii) Institutional	0.4
<u>Note:</u>	
"Other" refers to Water Distribution System components including watermains, pumping stations and reservoirs.	

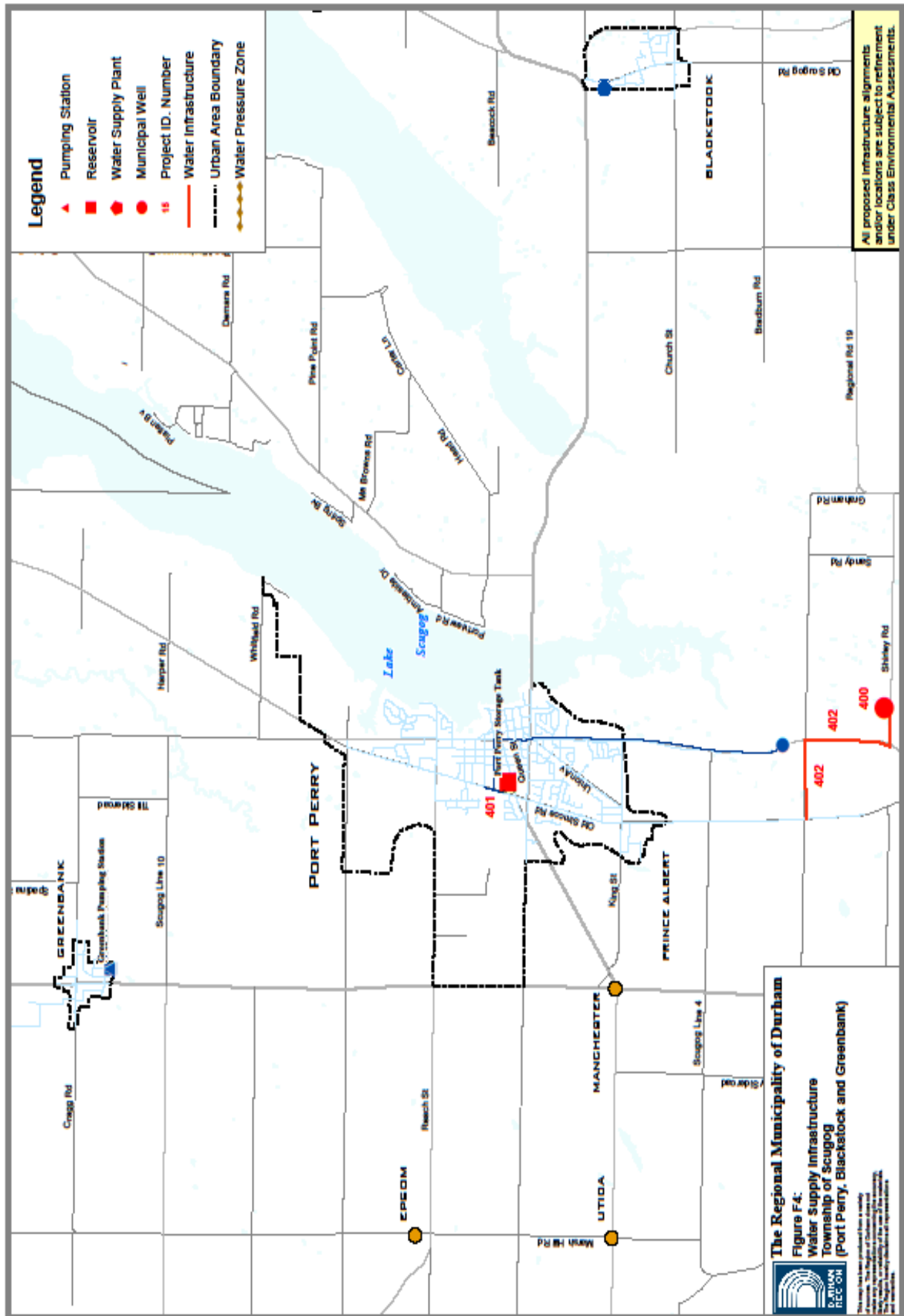
4.0 CALCULATION OF DEVELOPMENT CHARGE QUANTUM

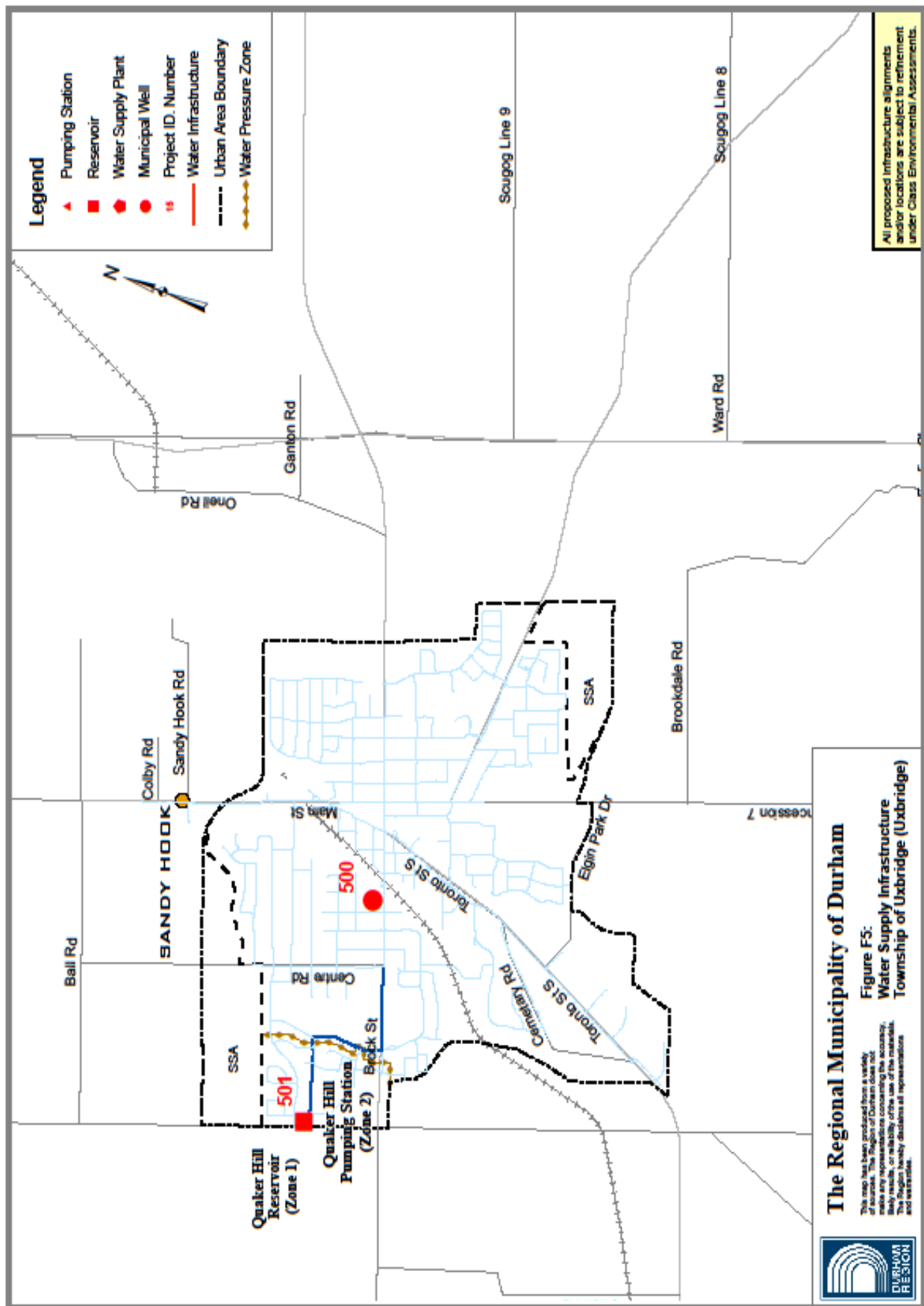
Tables F.3 to F.6 determine the proposed Development Charge per unit for new residential and new non-residential development within the urban areas in the Region of Durham. These tables summarize the Net Growth Related Capital Costs against projected new development during the fifteen year forecast, including allowances for deducting Uncommitted Excess Capacity from the future requirement and deducting Existing Reserve Fund Balances.

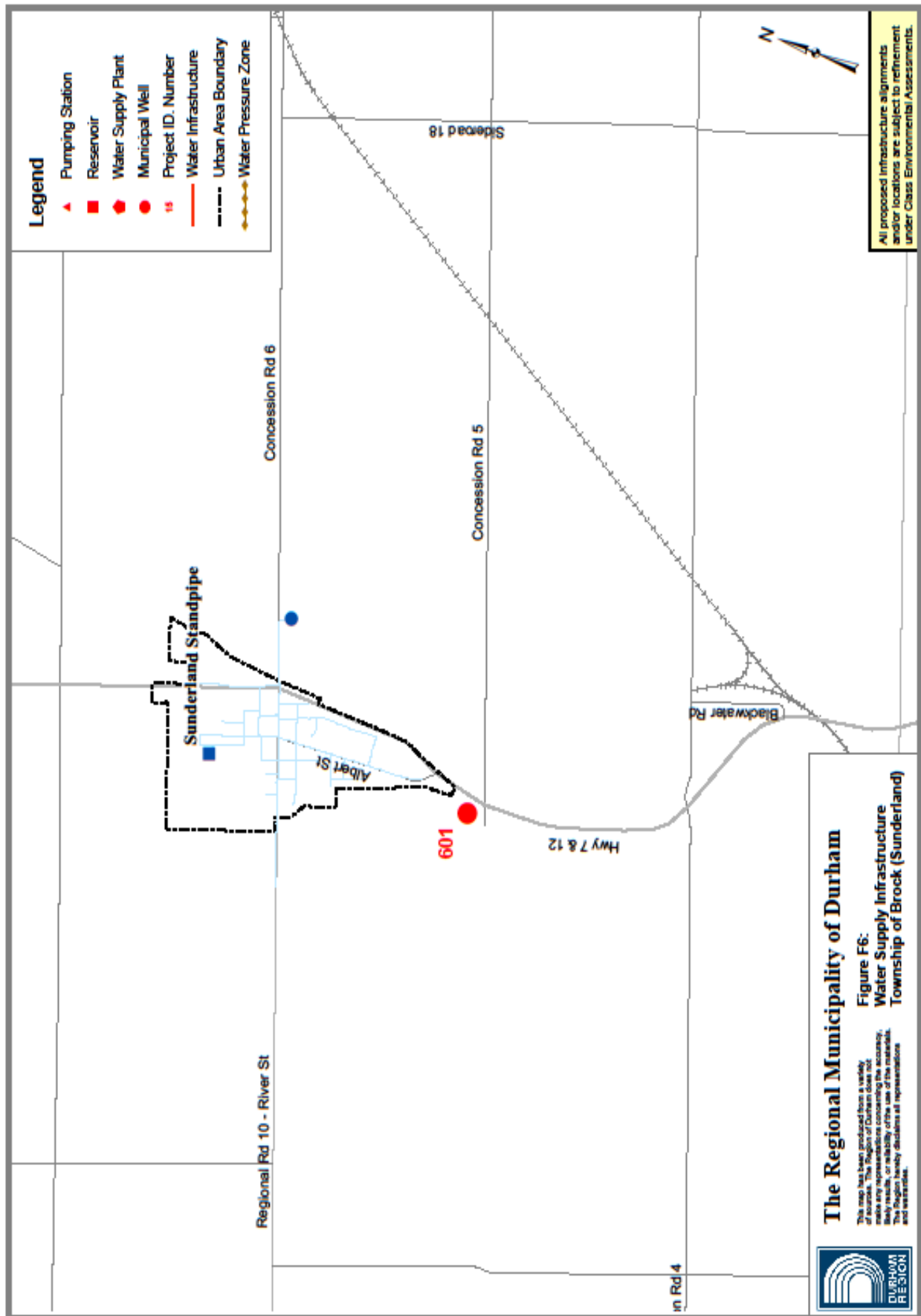


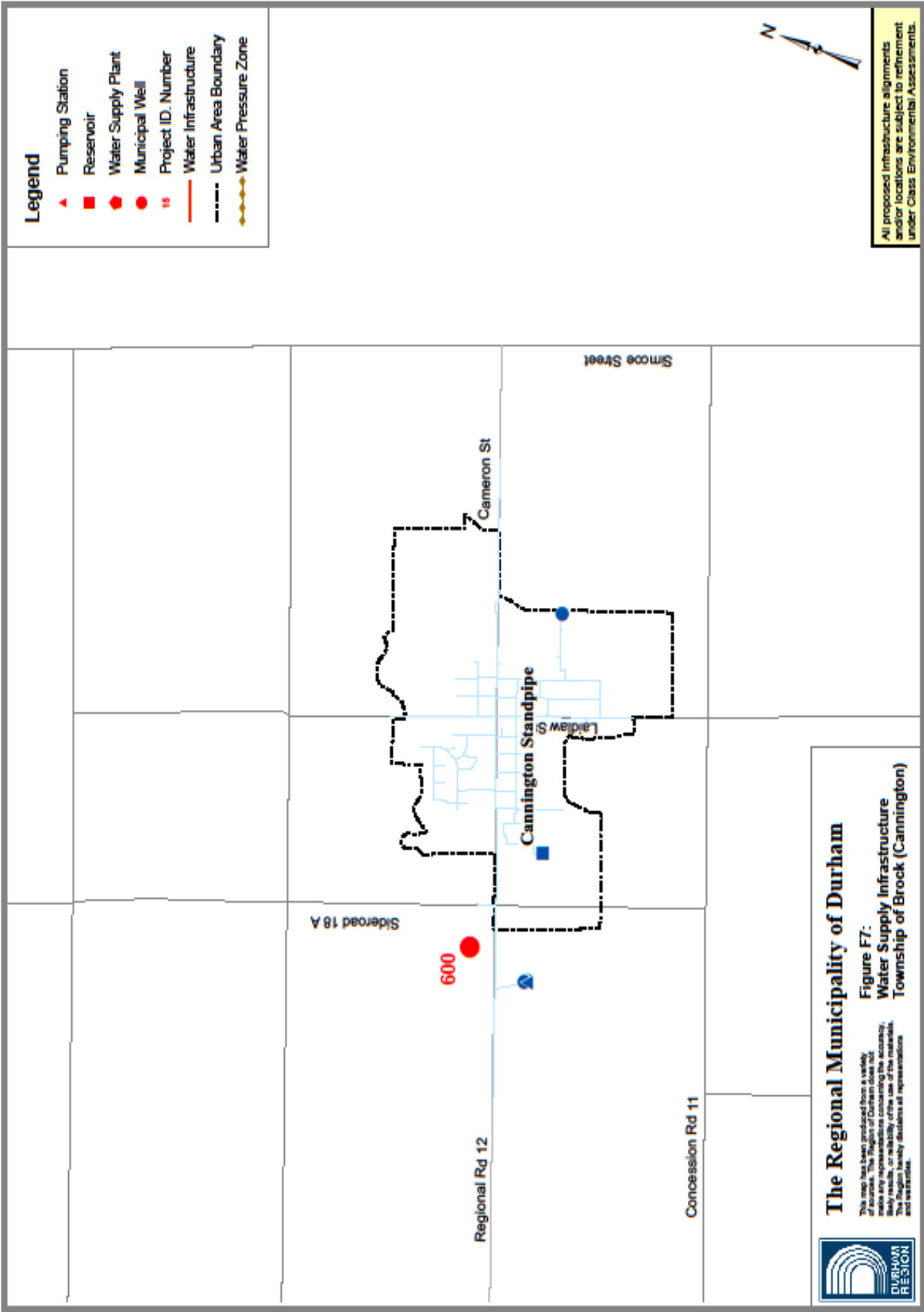












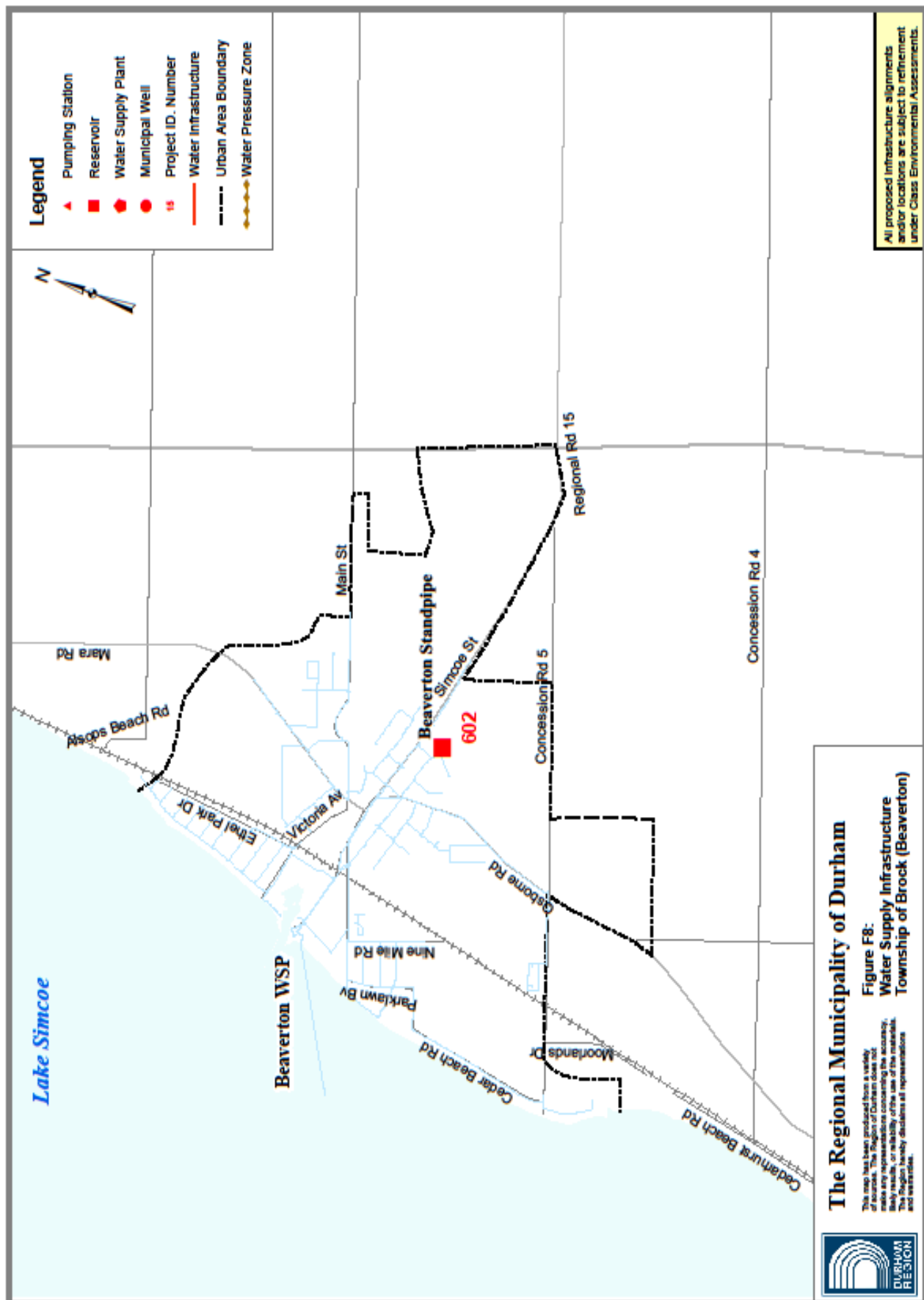


Table F.1 - Regional Water Supply: Capital Cost Summary: Residential (Year 2013 - 2027)																	
Item #	Description	Gross Cost/ Residential Share Service: Water Supply 2013 D.C. Study	Benefit to Existing Development	Post Period Benefit	Grants, Subsidy, Other	Development Related				Total Net Residential Growth Cost	BY YEAR						
						Seaton	Federal Lands	Non- Resid.	Resid.		2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
\$ 000's																	
Construction of Major Feedermains (FM) for New Development																	
215	Zone 1 - 1200 mm feedmain on easement from Whitby WSP to Victoria St./ONR - Whitby	10,350	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	8,633	209	834	7,590		
216	Zone 1 - 1200 mm feedmain on Victoria St. from Victoria St./ONR to 750 m east of Thickson Rd. - Whitby	14,280	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	11,911			234	11,677	
217	Zone 1 - 1200 mm feedmain on Victoria St./Bloor St. from 750 m east of Thickson Rd. to Thornton Rd. - Whitby	10,800	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	9,008			1,668	7,340	
218	Zone 1 - 1200 mm feedmain on Thornton Rd. from Wentworth St. to Champlain Ave. - Oshawa	1,200	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,054	1,054				
219	Zone 1 - 600 mm feedmain on Manning Rd. from Anderson St. to Thickson Rd. - Whitby	1,700	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,493				220	12,735
220	Zone 1 - 1050 mm feedmain on Bloor St. from Stevenson Rd. to Wilson Rd. - Oshawa	5,748	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	5,047	5,047				
221	Zone 1 - 400 mm feedmain on easement from Future Energy Dr. to Baseline Rd. / Courtyard Rd. - Courtyard	3,550	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	3,117	44	3,073			
222	Zone 1 - 400 mm feedmain on Baseline Rd. from Courtyard Rd. to Prestonville Rd. - Courtyard	1,800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,580	220	1,361			
223	Zone 1 - 400 mm feedmain on easement from Prestonville Rd. to Towline Rd. - Courtyard	1,300	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,141			439	702	
224	Zone 1 - 400 mm feedmain on Prestonville Rd. from Baseline Rd. to 950 m N. of Baseline Rd. - Courtyard	1,400	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,228			220	1,000	
225	Zone 2 - 400 mm feedmain on Tails Rd. from Baseline Rd. to Bloor St. - Courtyard	2,600	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	2,283		439	1,844		
226	Zone 2 - 400 mm feedmain on Bloor St. from Towline Rd. to Tails Rd. - Courtyard	2,950	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	2,461		334	2,127		1,954
227	Zone 3 - 750 mm feedmain on Corbin Rd. from Garard Rd. P.S. to Thickson Rd. - Whitby	2,225	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,954					9,289
228	Zone 3 - 750 mm feedmain on Thickson Rd. from Corbin Rd. to Carwith Dr. - Whitby	10,575	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	9,285				2,897	
229	Zone 3 - 900 mm feedmain on Corbin Rd. from Rison Rd. to Wilson Rd. - Oshawa	3,600	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	3,161		263			
230	Zone 3 - 300 mm watermain on Carwith Dr. from Way St. to 250 m east of Way St. - Whitby	825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	724	132	593			
231	Zone 3 - 900 mm feedmain on Hamory Rd. from Tauron Rd. to Corbin Rd. - Oshawa	6,900	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	6,058	439	5,619			
232	Zone 3 - 900 mm feedmain on Corbin Rd. from Sincce St. to Garard Rd. Zone 3 P.S. - Oshawa/Whitby	11,525	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	9,613			834	8,719	
233	Zone 3 - 900 mm feedmain on Corbin Rd. from Rison Rd. to Sincce St. - Oshawa	9,875	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	8,237					8,237
234	Zone 3 - 600 mm feedmain on Sincce St. from Brianna Rd. to Winchester Rd. - Oshawa	1,750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,537			878	659	
235	Zone 3 - 400 mm feedmain on Rison Rd. from Corbin Rd. to south of Winchester Rd. - Oshawa	3,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	2,634					1,756
236	Zone 3 - 400 mm feedmain on Winchester Rd. from Rison Rd. to Sincce St. - Oshawa	2,150	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,888				878	10,100
237	Zone 4 - 400 mm feedmain on Hamory Rd. from Corbin Rd. to 1200 m south of Corbin Rd. - Oshawa	1,625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,427			439	988	
238	Zone 4 - 400 mm feedmain on Corbin Rd. from Hamory Rd. to Towline Rd. - Oshawa	2,875	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	2,524			439	2,085	
239	Zone 4 - 600 mm feedmain on Hamory Rd. from Corbin Rd. to New Zone 4 P.S. - Oshawa	3,825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	3,358					3,358
240	Zone 4 - 400 mm feedmain on Ashburn Rd. from Columbus Rd. to Bradley Rd. and Winchester Rd. - Whitby	3,325	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	2,919					2,919
241	Zone 4 - 400 mm feedmain on Sincce Street from 1200 m N. of Columbus Rd. to 1100 m S. of Columbus Rd. - Oshawa	3,450	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	3,028					3,028
242	Zone 4 - 900 mm feedmain from Grandview Zone 4 P.S. to Grandview St. N. Zone 4 Reservoir - Oshawa	14,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	12,292					12,292
243	Zone 4 - 400 mm feedmain from Grandview St./Winchester Rd. to Grandview St./Corbin Rd. - Oshawa	3,800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	3,336					3,336
244	Zone 4 - 900 mm feedmain from Thickson Rd. Zone 4 Pumping Station to Zone 4 Reservoir - Whitby	17,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	14,926			439	14,487	
245	Zone 4 - 750 mm feedmain from Zone 4 Reservoir to Bradley Rd. and Bradley Rd. from Duffs Rd. to Ashburn Road - Whitby	10,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	9,219				9,219	
246	Zone 4 - 750 mm feedmain on Columbus Rd. from Thickson Rd. to Rison Rd. - Whitby/Oshawa	15,300	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	13,433					13,433
247	Zone 4 - 750 mm feedmain on Rison Rd. from Columbus Rd. to Winchester Rd. - Oshawa	6,050	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	5,312					5,312
248	Zone 4 - 400 mm/750 mm feedmain on Winchester Rd. from Rison Rd. to Grandview St. - Oshawa	8,275	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	7,265					7,265
249	West Whitby 750 mm feedmain on Brock St./Victoria St. to Hwy. 2	35,225	14.45%	5.78%	0.00%	0.00%	0.00%	0.00%	0.00%	9.73%	70.04%	24,671				24,671	
250	West Whitby 750 mm feedmain from Hwy. 2 to Rossland Rd.	10,800	14.45%	5.78%	0.00%	0.00%	0.00%	0.00%	0.00%	9.73%	70.04%	7,564					7,564
Sub-Total		246,153	9,640	2,660	14,676	0	0	0	0	28,330	286,323	206,323	7,143	12,616	12,014	28,721	61,048
Total Whitby/Oshawa/Clearington (Courtyard)		434,703	17,540	14,676	0	0	0	0	0	73,468	329,019	329,019	7,143	16,477	75,491	22,371	50,597
Clearington (Bowmanville)																	
Water Supply Plants (WSP)																	
300	Expansion Bowmanville WSP from 38,360 to 54,545 m ³ /d (8 to 12 MGD)	17,200	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.70%	64.30%	11,060			322	643	10,095
Sub-Total		17,200	0	0	0	0	0	0	0	6,140	11,060	11,060	0	0	0	322	10,095
Reservoirs																	
301	Liberty St. N. Zone 1 Reservoir, 11,363 m ³ (2.5 MG) & abandon elevated tank (0.34 MG)	10,700	13.85%	26.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.36%	52.64%	5,668			159	5,510	
302	Expansion of Zone 2 Reservoir from 9,090 to 18,180 m ³ (2 to 4 MG)	7,406	0.00%	85.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.83%	13.17%	975					975
Sub-Total		18,106	1,461	9,071	0	0	0	0	0	923	6,645	6,645	0	159	5,510	0	975

Table F-1 - Regional Water Supply: Capital Cost Summary: Residential (Year 2013 - 2027)

Table F-1 - Regional Water Supply: Capital Cost Summary: Residential (Year 2013 - 2027)																	
Item #	Description	Gross Cost) (2013 Estimated Cost)	Benefit to Existing Development	Post Period Benefit	Grants, Subsidy, & Other	Development Related				Total Net Residential Growth Cost	BY YEAR						
						Seabon	Federal Lands	Non-Resid.	Resid.		2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
Pumping Stations (PS)																	
303	Expansion of Concession St. Zone 2 P.S.	1,150	0.00%	7.52%	0.00%	0.00%	0.00%	0.00%	11.28%	81.20%	934						934
304	Zone 2 PS at Zone 1 Reservoir	5,000	0.00%	7.52%	0.00%	0.00%	0.00%	0.00%	11.28%	81.20%	4,060						4,060
	Sub-Total	6,150	0	462	0	0	0	0	694	4,994	4,994	0	0	0	0	0	4,994
Construction of Major Feedmains (FM) for New Developments																	
305	Zone 1 - 900 mm feedmain from Bowmanville WSP to Baseline Rd.	6,700	13.65%	0.00%	0.00%	0.00%	0.00%	0.00%	10.53%	75.81%	5,079						5,079
306	Zone 1 - 900 mm feedmain on Baseline Rd. from Wharf St. to Means Ave.	2,825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	2,480						2,480
307	Zone 1 - 900 mm feedmain on Hwy. 2, Lamb's Rd., Third Concession Rd. to Liberty Zone 1 Reservoir	23,600	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	20,721		13,170	7,551			
308	Zone 1 - 750 mm feedmain on Baseline Rd. from Liberty St. to R.R. 57	4,575	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	3,806						3,806
309	Zone 2 - 750 mm feedmain from Zone 2 PS to Zone 2 Reservoir	34,175	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	30,006						30,006
310	Zone 2 - 400 mm feedmain on Third Conc. Rd. from Scougg St. to Means Ave.	2,340	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	2,055		2,055				
311	Zone 2 - 400 mm/600 mm feedmain on Third Conc. Rd. from Scougg St. to R.R. 57 and on R.R. 57 from Third Concession Rd. to Longworth Ave.	575	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	505		505				
	Total Clarington (Bowmanville)	74,790	1,444	9,540	0	0	0	0	8,965	64,462	64,462	0	15,729	7,551	0	0	3,806
		116,246	2,605						16,742	87,359	87,359	0	15,888	13,061	322	643	13,911
Clarington (Newcastle, Orono & Newtonville)																	
Water Supply Plants (WSP)																	
312	Expansion of Newcastle WSP from 8,182 m³/d to 15,360 m³/d (1.8 to 3.6 MGD)	20,800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.70%	64.30%	13,374		643	12,731			
	Sub-Total	20,800	0	0	0	0	0	0	7,426	13,374	13,374	0	643	12,731	0	0	0
Reservoirs																	
313	Zone 1 reservoir 6,810 m³ (1.5 MGD) and land - Newcastle	6,300	0.00%	5.42%	0.00%	0.00%	0.00%	0.00%	11.54%	83.04%	5,232		581	4,650			
314	Additional 820 m³ (0.18 MGD) elevated storage and land allowance - Orono	3,220	87.22%	0.00%	0.00%	0.00%	0.00%	0.00%	1.56%	11.22%	361						361
315	Zone 2 reservoir (Class EA) - Newcastle	1,000	0.00%	11.46%	0.00%	0.00%	0.00%	0.00%	10.80%	77.75%	777						777
	Sub-Total	10,520	2,889	456	0	0	0	0	885	6,370	6,370	0	581	4,650	0	0	361
Pumping Stations (PS)																	
316	Zone 2 PS and land - Newcastle	4,600	0.00%	14.08%	0.00%	0.00%	0.00%	0.00%	10.48%	75.44%	3,470		377	377	2,716		
	Sub-Total	4,600	0	648	0	0	0	0	482	3,470	3,470	0	377	377	2,716	0	0
Construction of Major Feedmains (FM) for New Developments																	
317	Zone 1 - 400 mm feedmain on King Ave. (Hwy. 2) from Rural Rd. to 200 west of North St. - Newcastle	1,050	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	922		176	746			
318	Zone 1 - 600 mm feedmain on Toronto St. & Rural Rd. from Newcastle WPCP to King Ave. (Hwy. 2) - Newcastle	5,750	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	4,796		417	4,379			
319	Zone 1 - 500 mm feedmain from existing Arthur St. reservoir to future Zone 1 Reservoir - Newcastle	2,225	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,954			1,954			
320	Zone 2 - 500 mm feedmain on Arthur St. from P.S. to 650 m south - Newcastle	1,275	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,119						1,119
	Sub-Total	10,300	288	0	0	0	0	0	1,222	8,791	8,791	593	5,125	1,954	0	0	1,119
	Total Clarington (Newcastle)	46,220	3,096	1,104	0	0	0	0	10,014	32,006	32,006	593	6,727	19,712	2,716	0	1,481
Scougg																	
Water Supply Plants (WSP)																	
400	New Water Supply - 2,270 m³ (0.5 MGD) well/pump house, land for firm capacity - Port Perry	13,150	85.61%	0.00%	0.00%	0.00%	0.00%	0.00%	5.14%	9.26%	1,217		1,217				
	Sub-Total	13,150	11,257	0	0	0	0	0	676	1,217	1,217	0	1,217	0	0	0	0
Reservoirs																	
401	Additional water storage 2,880 m³ (0.63 MGD) for total 5,000 m³ (1.1 MGD) and land - Port Perry	11,000	85.35%	0.00%	0.00%	0.00%	0.00%	0.00%	1.79%	12.86%	1,415					129	1,286
	Sub-Total	11,000	9,389	0	0	0	0	0	397	1,415	1,415	0	0	0	0	129	1,286

Table F.2 - Regional Water Supply: Capital Cost Summary: Non - Residential (Year 2013 - 2027)																
Item #	Description	Gross Cost (2013) Water Supply 2013 D.C. Study Estimated Cost	Benefit to Existing Development %	Post Period Benefit %	Grants, Subsidy, & Other %	Seaton	Development Related			Total Net Non-Residential Growth Cost	BY YEAR					
							Federal Lands	Non-Resid.	Resid.		2013	2014	2015	2016	2017	2018 - 2023 - 2027
Pickering / Ajax																
Water Supply Plants (WSP)																
100	Expansion of Ajax WSP from 163,635 to 327,270 m ³ (36 to 72 MGD)	90,500	0.00%	33.00%	0.00%	39.00%	17.00%	3.93%	7.07%	3,554						
	Sub-Total	90,500	0	29,865	0	35,295	15,385	3,554	6,401	3,554	0	0	0	39	79	3,436
Reservoirs																
101	11,360 m ³ (2.5 MG) Zone 1 reservoir at Harwood pumping station	9,275	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,132						
102	25,000 m ³ (5.5 MGD) Brock Rd. Zone 1 reservoir and land	7,000	0.00%	0.00%	0.00%	19.09%	8.18%	8.87%	63.86%	621	621					
	Sub-Total	16,275	0	0	0	1,336	573	1,753	12,613	1,753	0	621	0	0	122	1,010
Pumping Stations (PS)																
103	Modification Zone 2 Harwood Ave. PS from 7.728 to 18.184 m ³ /d (1.7 to 4 MGD) - Ajax	1,450	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	177						
	Sub-Total	1,450	0	0	0	0	0	177	1,273	177	0	0	0	0	0	177
Construction of Major Feedmains (FM) for New Developments																
104	Zone 1 - 900 mm feedmain on Bayly St. from Pickering Beach Rd. to Toy Ave. - Pickering / Ajax	17,600	0.00%	0.00%	0.00%	20.91%	0.00%	9.65%	69.44%	1,698						1,698
105	Zone 1 - 750 mm feedmain on Harwood Ave. from Rossland Rd. to Magill Dr. - Ajax	4,000	0.00%	0.00%	0.00%	37.46%	0.00%	7.63%	54.91%	305					305	
106	Zone 2 - 400 mm/600 mm feedmain on Harwood Ave. from Taunton Rd. to 800 m south - Ajax	3,700	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	451					451	
107	Zone 1 - 750 mm feedmain on Rossland Rd. from Brock Rd. to Westney Rd. - Pickering / Ajax	12,200	0.00%	0.00%	0.00%	9.96%	25.40%	7.89%	56.75%	962	284			678		
108	Zone 2 - 400 mm feedmain on Taunton Rd. from Church St. to Westney Rd. - Ajax	2,275	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	278					278	
109	Zone 2 - 400 mm feedmain on Church St. from Taunton Rd. to Rossland Rd. - Ajax	3,200	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	390					390	
110	Zone 2 - 500 mm feedmain on Taunton Rd. from Brock Rd. to Church St. - Ajax / Pickering	2,875	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	351					351	
	Sub-Total	45,890	0	0	0	6,394	3,099	4,436	31,922	4,436	0	284	0	678	0	1,775
	Total Pickering/Ajax	154,075	0	29,865	0	43,025	19,056	9,919	52,210	9,919	0	905	0	717	201	6,398
Whitby/Oshawa/Clearington (Courtice)																
Water Supply Plants (WSP)																
200	Expansion of Whitby WSP from 109,100 to 218,220 m ³ /d (24 to 48 MGD)	108,500	0.00%	5.78%	0.00%	0.00%	0.00%	33.64%	60.58%	36,496		1,682	34,814			
201	Modification at Whitby WSP - Filter Plates	9,350	84.50%	0.00%	0.00%	0.00%	0.00%	5.53%	9.97%	517		517				
	Sub-Total	117,850	7,901	6,271	0	0	0	37,013	66,665	37,013	0	2,199	34,814	0	0	0
Reservoirs																
204	18,200 m ³ (7.0 to 11.0 MG) expansion of Garard Rd. Zone 1 reservoir - Whitby	14,850	0.00%	5.10%	0.00%	0.00%	0.00%	11.58%	83.32%	1,719						58
205	13,640 m ³ /d (3.0 MGD) expansion of Taunton Rd. reservoir - Oshawa	11,200	0.00%	2.20%	0.00%	0.00%	0.00%	11.93%	85.87%	1,368					60	1,277
206	13,640 m ³ (3.0 MG) expansion of Hamony Rd. Zone 3 reservoir - Oshawa	4,150	0.00%	24.67%	0.00%	0.00%	0.00%	9.19%	66.14%	381						381
207	11,360 m ³ (2.5 MG) Zone 4 reservoir and land - Whitby	9,000	0.00%	12.00%	0.00%	0.00%	0.00%	10.74%	77.28%	968			107	107	752	
208	11,360 m ³ (2.5 MG) Zone 4 reservoir and land - Oshawa	9,000	0.00%	13.32%	0.00%	0.00%	0.00%	10.57%	76.11%	952						952
	Sub-Total	48,200	0	4,306	0	0	0	5,355	38,539	5,355	0	0	107	107	752	118
Pumping Stations (PS)																
209	Modification at Garard Rd. PS for Ultimate Zone 3 Pumps - Whitby	1,150	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	140						
210	New Zone 4 PS at Hamony Zone 3 reservoir - Oshawa	6,900	0.00%	13.32%	0.00%	0.00%	0.00%	10.57%	76.11%	730						730
211	Expansion of Grandview Zone 2 PS - Oshawa	6,900	0.00%	2.70%	0.00%	0.00%	0.00%	11.87%	85.43%	819						819
212	Expand Thickson Rd. Zone 3 PS to 22,700 m ³ /d (5.0 MGD) - Brooklin	1,150	0.00%	13.11%	0.00%	0.00%	0.00%	10.60%	76.29%	122						122
213	Expansion of Taunton Zone 3 PS from 27,270 to 75,000 m ³ /d (6 to 16.5 MGD) - Oshawa	1,225	0.00%	14.83%	0.00%	0.00%	0.00%	10.39%	74.78%	127						127
214	Zone 4 PS at Thickson Rd. Zone 2 reservoir - Brooklin	5,175	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	631				122	509	
	Sub-Total	22,500	0	1,438	0	0	0	2,570	18,493	2,570	0	0	0	122	509	140

Table F-2 - Regional Water Supply: Capital Cost Summary: Non - Residential (Year 2013 - 2027)																
Item #	Description	Gross Cost (\$ 000's)	Benefit to Existing Development (%)	Post Period Benefit	Grants, Subsidy, & Other	Development Related			Total Net Non-Residential Growth Cost	BY YEAR						
						Seaton	Federal Lands	Non-Resid.		2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
Construction of Major Feeders (RM) for New Development																
215	Zone 1 - 1200 mm feedmain on easement from Whitby WSP to Victoria St./CNR - Whitby	10,350	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	1,200	29	116	1,055		
216	Zone 1 - 1200 mm feedmain on Victoria St. from Victoria St./CNR to 750 m east of Thickson Rd. - Whitby	14,280	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	1,655			32	1,623	
217	Zone 1 - 1200 mm feedmain on Victoria St./Bloor St. from 750 m east of Thickson Rd. to Thornton Rd. - Whitby	10,800	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	1,252				222	1,020
218	Zone 1 - 1200 mm feedmain on Thornton Rd. from Wentworth St. to Champlain Ave. - Oshawa	1,200	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	146	146				
219	Zone 1 - 600 mm feedmain on Manning Rd. from Anderson St. to Thickson Rd. - Whitby	1,700	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	207					31
220	Zone 1 - 1050 mm feedmain on Bloor St. from Stevenson Rd. to Wilson Rd. - Oshawa	5,748	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	701	701				
221	Zone 1 - 400 mm feedmain on easement from Future Energy Dr. to Baseline Rd. - Courtyce	3,520	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	438	6	427			
222	Zone 1 - 400 mm feedmain on Baseline Rd. from Courtyce Rd. to Prestonvale Rd. - Courtyce	1,800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	220	31	189			
223	Zone 1 - 400 mm feedmain on easement from Prestonvale Rd. to Townline Rd. - Courtyce	1,300	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	158				61	98
224	Zone 1 - 400 mm feedmain on Prestonvale Rd. from Baseline Rd. to 950 m N. of Baseline Rd. - Courtyce	2,400	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	171				31	140
225	Zone 2 - 400 mm feedmain on Trulls Rd. from Baseline Rd. to Bloor St. - Courtyce	1,600	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	317				61	256
226	Zone 2 - 400 mm feedmain on Bloor St. from Townline Rd. to Trulls Rd. - Courtyce	2,950	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	342				46	296
227	Zone 3 - 750 mm feedmain on Conlin Rd. from Garard Rd. P.S. to Thickson Rd. - Whitby	2,225	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	271					271
228	Zone 3 - 750 mm feedmain on Thickson Rd. from Conlin Rd. to Camwath Dr. - Whitby	10,575	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,290					1,290
229	Zone 3 - 900 mm feedmain on Conlin Rd. from Ritson Rd. to Wilson Rd. - Oshawa	3,600	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	438				37	403
230	Zone 3 - 300 mm watermain on Camwath Dr. from Way St. to 250 m east of Way St. - Whitby	825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	101	18	82			
231	Zone 3 - 900 mm feedmain on Hamony Rd. from Taunton Rd. to Conlin Rd. - Oshawa	6,900	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	842	61	781			
232	Zone 3 - 900 mm feedmain on Conlin Rd. from Sincos St. to Garard Rd. Zone 3 PS - Oshawa/Whitby	11,525	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	1,336				116	1,220
233	Zone 3 - 900 mm feedmain on Conlin Rd./Brittania Rd. from Ritson Rd. to Sincos St. - Oshawa	9,875	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11.59%	83.41%	1,145					1,145
234	Zone 3 - 600 mm feedmain on Sincos St. from Britannia Rd. to Winchester Rd. - Oshawa	1,750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	214				122	92
235	Zone 3 - 400 mm feedmain on Ritson Rd. from Conlin Rd. to south of Winchester Rd. - Oshawa	3,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	366				122	244
236	Zone 3 - 400 mm feedmain on Winchester Rd. from Ritson Rd. to Sincos St. - Oshawa	2,150	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	262				122	140
237	Zone 4 - 400 mm feedmain on Hamony Rd. from Conlin Rd. to 1200 m south of Conlin Rd. - Oshawa	1,625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	198				61	137
238	Zone 4 - 400 mm feedmain on Conlin Rd. from Hamony Rd. to Townline Rd. - Oshawa	2,875	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	351				61	290
239	Zone 4 - 600 mm feedmain on Hamony Rd. from Conlin Rd. to New Zone 4 PS - Oshawa	3,825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	467					467
240	Zone 4 - 400 mm feedmain on Ashburn Rd. from Columbus Rd. to Brawley Rd. and Winchester Rd. - Whitby	3,325	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	406					406
241	Zone 4 - 400 mm feedmain on Sincos Street from 1200 m N of Columbus Rd. to 1100 m S of Columbus Rd. - Oshawa	3,450	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	421					421
242	Zone 4 - 900 mm feedmain from Grandview Zone 4 PS to Grandview St. N Zone 4 Reservoir - Oshawa	14,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,708					1,708
243	Zone 4 - 400 mm feedmain from Grandview St./Winchester Rd. to Grandview St./Conlin Rd. - Oshawa	3,800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	464					464
244	Zone 4 - 900 mm feedmain from Thickson Rd. Zone 4 Pumping Station to Zone 4 reservoir - Whitby	17,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	2,074				61	2,013
245	Zone 4 - 750 mm feedmain from Zone 4 Reservoir to Brawley Rd. and Brawley Rd. from Duffs Rd. to Ashburn Road - Whitby	10,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,281					1,281
246	Zone 4 - 750 mm feedmain on Columbus Rd. from Thickson Rd. to Ritson Rd. - Whitby/Oshawa	15,300	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,867					1,867
247	Zone 4 - 750 mm feedmain on Ritson Rd. from Columbus Rd. to Winchester Rd. - Oshawa	6,050	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	738					738
248	Zone 4 - 400 mm feedmain on Winchester Rd. from Ritson Rd. to Grandview St. - Oshawa	8,275	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,010					1,010
249	West Whitby 750 mm feedmain from Brock St./Victoria St. to Hwy. 2	35,225	14.45%	5.78%	0.00%	0.00%	0.00%	0.00%	9.73%	70.04%	3,428					3,428
250	West Whitby 750 mm feedmain from Hwy. 2 to Rossland Rd.	10,800	14.45%	5.78%	0.00%	0.00%	0.00%	0.00%	9.73%	70.04%	1,051					1,051
Sub-Total		246,153	9,940	2,660	0	0	0	0	28,530	205,323	28,530	993	1,739	1,669	2,879	4,869
Total Whitby/Oshawa/Clarington (Courtyce)		434,703	17,540	14,676	0	0	0	0	73,468	329,019	73,468	993	3,938	36,591	3,109	6,130
Clarington (Bowmanville)																
Water Supply Plants (WSP)																
300	Expansion Bowmanville WSP from 36,380 to 54,545 m³/d (8 to 12 MGD)	17,200	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.70%	64.30%	6,140				179	357
Sub-Total		17,200	0	0	0	0	0	0	6,140	11,060	6,140	0	0	0	179	357
Reservoirs																
301	Liberty St. N. Zone 1 reservoir, 11,363 m³ (2.5 MGD) & abandon elevated tank (0.34 MGD)	10,700	13.65%	26.00%	0.00%	0.00%	0.00%	0.00%	7.36%	52.98%	768					
302	Expansion of Zone 2 reservoir from 9,080 to 18,180 m³ (2 to 4 MGD)	7,406	0.00%	85.00%	0.00%	0.00%	0.00%	0.00%	1.83%	13.17%	136					
Sub-Total		18,106	14,61	9,077	0	0	0	0	923	6,645	923	0	22	766	0	0

Table F-2 - Regional Water Supply: Capital Cost Summary: Non - Residential (Year 2013 - 2027)																
Item #	Description	Gross Cost (2013 Estimated Cost)	Benefit to Existing Development	Post Period Benefit	Grants, Subsidy, & Other	Seton	Development Related			Total Residential Growth Cost	BY YEAR					
							Federal Lands	Non-Resid.	Resid.		2013	2014	2015	2016	2017	2018 - 2022
		\$ 000's	%	%	%	%	%	%	%	\$ 000's						
Pumping Stations (PS)																
303	Expansion of Concession St. Zone 2 P.S.	1,150	0.00%	7.52%	0.00%	0.00%	0.00%	0.00%	0.00%	130						130
304	Zone 2 Pumping Station at Zone 1 reservoir	5,000	0.00%	7.52%	0.00%	0.00%	0.00%	0.00%	0.00%	564						564
	Sub-Total	6,150	0	462	0	0	0	0	0	694	0	0	0	0	0	694
Construction of Major Feedermains (FM) for New Developments																
305	Zone 1 - 900 mm feedmain from Bowmanville WSP to Baseline Rd.	6,700	13.65%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	706						706
306	Zone 1 - 900 mm feedmain on Baseline Rd. from Wheat St. to Meerns Ave.	2,825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	345						345
307	Zone 1 - 900 mm feedmain on Hwy. 2, Lantus Rd., Third Concession Rd. to Liberty Zone 1 Reservoir	23,600	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2,879		1,830	1,049			
308	Zone 1 - 750 mm feedmain on Baseline Rd. from Liberty St. to R.R. 57	4,575	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	530						530
309	Zone 2 - 750 mm feedmain from Zone 2 P.S. to Zone 2 Reservoir	34,175	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4,169						4,169
310	Zone 2 - 400 mm feedmain on Third Conc. Rd. from Scugog St. to Meerns Ave.	2,340	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	285						
311	Zone 2 - 400 mm/600 mm feedmain on Third Conc. Rd. from Scugog St. to R.R. 57 and on R.R. 57 from Third Concession Rd. to Longworth Ave.	575	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	70						
	Total Clarington (Bowmanville)	74,790	1,144	9,540	0	0	0	0	0	8,985	0	2,186	1,049	0	0	530
		116,246	2,605							16,742	0	2,208	1,815	179	357	6,135
Clarington (Newcastle, Orono & Newtonville)																
Water Supply Plants (WSP)																
312	Expansion of Newcastle WSP from 8.182 m ³ /d to 16.360 m ³ /d (1.8 to 3.6 MGD)	20,800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7,426		357	7,069			
	Sub-Total	20,800	0	0	0	0	0	0	0	7,426	0	357	7,069	0	0	0
Reservoirs																
313	Zone 1 reservoir 6,810 m ³ (1.5 MGD) and land - Newcastle	6,300	0.00%	5.42%	0.00%	0.00%	0.00%	0.00%	0.00%	727		81	646			
314	Additional 820 m ³ (0.18 MGD) elevated storage and land allowance - Orono	3,220	87.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50						50
315	Zone 2 reservoir (Class EA) - Newcastle	1,000	0.00%	11.45%	0.00%	0.00%	0.00%	0.00%	0.00%	108						108
	Sub-Total	10,520	2,899	466	0	0	0	0	0	885	0	81	646	0	0	50
Pumping Stations (PS)																
316	Zone 2 PS and land - Newcastle	4,600	0.00%	14.08%	0.00%	0.00%	0.00%	0.00%	0.00%	482		52	52	377		
	Sub-Total	4,600	0	648	0	0	0	0	0	482	0	52	52	377	0	0
Construction of Major Feedermains (FM) for New Developments																
317	Zone 1 - 400 mm feedmain on King Ave. (Hwy. 2) from Rudell Rd. to 200 west of North St. - Newcastle	1,050	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	128		24	104			
318	Zone 1 - 600 mm feedmain on Toronto St. & Rudell Rd. from Newcastle WPCP to King Ave. (Hwy. 2) - Newcastle	5,750	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	666		58	608			
319	Zone 1 - 500 mm feedmain from existing Arthur St. reservoir to future Zone 1 reservoir - Newcastle	2,225	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	271			271			
320	Zone 2 - 500 mm feedmain on Arthur St. from P.S. to 650 m south - Newcastle	1,275	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	156						156
	Sub-Total	10,300	288	0	0	0	0	0	0	1,222	82	712	271	0	0	156
	Total Clarington (Newcastle)	46,220	3,096	1,104	0	0	0	0	0	10,014	82	1,202	8,039	377	0	206
Scugog																
Water Supply Plants (WSP)																
400	New Water Supply - 2,270 m ³ (0.5 MGD) well/pump house, land for firm capacity - Port Perry	13,150	86.61%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	676		676				
	Sub-Total	13,150	11,257	0	0	0	0	0	0	676	0	676	0	0	0	0
Reservoirs																
401	Additional Water Storage 2,860 m ³ (0.63 MGD) for total 5,000 m ³ (1.1 MGD) and land - Port Perry	11,000	86.35%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	197					18	179
	Sub-Total	11,000	9,989	0	0	0	0	0	0	197	0	0	0	0	18	179

Table F.2 - Regional Water Supply: Capital Cost Summary: Non - Residential (Year 2013 - 2027)

Table F.2 - Regional Water Supply: Capital Cost Summary: Non - Residential (Year 2013 - 2027)																
Growth - Related			Non - Residential Share										Total			
Non - Residential Share			Service: Water Supply										Residential			
2013 D.C. Study			2013 D.C. Study										2013 - 2027			
Item #	Description	Gross Cost (2013 Estimated Cost)	Benefit to Existing Development	Post Period Benefit	Grants, Subsidy, & Other	Development Related			Total Net Non-Residential Growth Cost	BY YEAR						
						Seaton	Federal Lands	Non-Resid.		2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
		\$ 000's	%	%	%	%	%	%								
Construction of Major Feeders (FM) for New Developments																
402	New 400 mm feeder main on Shirley Rd, Simcoe St. and Scugog Line 3 from new well to Old Simcoe Rd.	4,365	85.35%	0.00%	0.00%	0.00%	0.00%	1.79%	12.68%	78						78
	Sub-Total	4,365	3,726	0	0	0	0	78	561	78						78
	Total Scugog	28,515	24,372	0	0	0	0	950	3,193	950	0	676	0	0	18	257 0
Uxbridge																
Water Supply Plants (WSP)																
500	New 2,725m ³ /d (0.60 MGD) well/pump house for firm capacity	3,500	4.67%	0.00%	0.00%	0.00%	0.00%	34.03%	61.30%	1,191	170	170	851			
	Sub-Total	3,500	163	0	0	0	0	1,191	2,145	1,191	0	170	170	851	0	0 0
Reservoirs																
501	3,180 m ³ (0.7 MGD) Expansion of Quaker Hill reservoir - Uxbridge	3,200	4.67%	0.00%	0.00%	0.00%	0.00%	11.63%	83.70%	372	23	348				
	Sub-Total	3,200	149	0	0	0	0	372	2,678	372	0	23	348	0	0	0
	Total Uxbridge	6,700	313	0	0	0	0	1,563	4,824	1,563	0	193	519	851	0	0 0
Brock																
Water Supply Plants (WSP)																
600	Well, pump house and land for firm capacity - Cannington	3,800	97.95%	0.00%	0.00%	0.00%	0.00%	0.73%	1.32%	28	4	24				
601	New well, pump house and land for firm capacity - Sunderland	3,600	97.95%	0.00%	0.00%	0.00%	0.00%	0.73%	1.32%	26	3	24				
	Sub-Total	7,400	7,248	0	0	0	0	54	98	54	4	27	24	0	0	0 0
Reservoirs																
602	Additional elevated storage from 2,045 to 4,767 m ³ (0.45 to 1.05 MGD) and land (EA) - Beaverton	10,000	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,220						1,220
	Sub-Total	10,000	0	0	0	0	0	1,220	8,780	1,220	0	0	0	0	0	0 1,220
	Total Brock	17,400	7,248	0	0	0	0	1,274	8,878	1,274	4	27	24	0	0	1,220
	Total Capital Cost	803,859	55,174	55,184	0	43,025	19,056	113,932	517,488	113,932	1,079	9,149	46,987	5,233	6,705	20,026 24,753
Other Development Charge Component Works																
700	Plant SCADA System Projects	5,500	63.00%	0.00%	0.00%	0.00%	0.00%	13.21%	23.79%	726						
701	Master Planning Studies for Regional Office Plan	1,500	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	183	61				61	61
702	Environmental Assessments for future Municipal Infrastructure Projects	1,000	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	122					61	61
703	Allowance for Regional Road Program and Municipal Road, MTO & GO-Transit Programs	43,256	95.00%	0.00%	0.00%	0.00%	0.00%	0.61%	4.39%	264	31	36	42	84	40	15 15
704	Allowance for Unserved Areas and Construction of Services in response to Requests or Petitions	27,537	95.00%	0.00%	0.00%	0.00%	0.00%	0.61%	4.39%	168	20	35	28	31	24	15 15
705	Allowance for Private Well Interference	13,350	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0	0	0	0	0	0	0 0 0
706	Allowance for Regional Share for works inconjunction with non-residential development	3,000	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	366	24	24	24	24	24	122 122
707	Maintenance Facilities Capital Allowance	11,200	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	1,366	85	85	85	85	85	470 470
708	Allowance for Regional Share for works inconjunction with residential development	24,000	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	2,928	195	195	195	195	195	976 976
709	Expansion of the Regional Environmental Laboratory	2,000	0.00%	0.00%	0.00%	0.00%	0.00%	12.20%	87.80%	244	244					
	Total Other Development Charge Component Works	132,343	70,718	0	0	0	0	6,368	55,257	6,368	1,326	437	375	420	369	1,720 1,720
Other Non Residential Development Charge Component Works																
800	Well Head Protection at Regional Well Sites (includes Groundwater Studies)	22,200	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0	0	0	0	0	0	0 0 0
	Total Other Non Residential Development Charge Component Works	22,200	22,200	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0
	Total of Region	958,402	148,092	55,184	0	43,025	19,056	120,299	572,745	120,299	2,405	9,586	47,362	5,653	7,074	21,746 26,473

Table F.3
RESIDENTIAL WATER
Region-Wide Development Charge (With-out Seaton)
Cash Flow Calculation of the Residential Development Charge
(\$000's)

Year	DC Reserve Fund Opening Balance	Existing Debt Payments	Development Related Expenditures	Development Related Expend. Inflated @ 3.5%	Issuing of New Debt	Debt Costs on new Debt 6.0%	Equivalent Single Detached Units	Unit Charge Inflated @ 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%/debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	99,245	0	14,259	14,259	0	0	3,735	7,246	27,064	112,051	3,362	115,412
2014-15	115,412	0	51,378	53,176	0	0	3,735	7,500	28,011	90,248	2,707	92,955
2015-16	92,955	0	114,714	122,884	80,808 ⁽¹⁾	0	3,735	7,762	28,992	79,871	2,396	82,267
2016-17	82,267	0	35,806	39,699	0	10,979	3,735	8,034	30,007	61,596	1,848	63,444
2017-18	63,444	0	49,450	56,745	0	10,979	3,735	8,315	31,057	26,776	803	27,579
2018-19	27,579	0	22,434	26,644	0	10,979	4,454	8,606	38,332	28,287	849	29,136
2019-20	29,136	0	22,434	27,577	0	10,979	4,454	8,907	39,673	30,253	908	31,160
2020-21	31,160	0	22,434	28,542	12,844 ⁽²⁾	10,979	4,454	9,219	41,062	45,544	1,366	46,911
2021-22	46,911	0	22,434	29,541	0	12,724	4,454	9,542	42,499	47,144	1,414	48,558
2022-23	48,558	0	22,434	30,575	0	12,724	4,454	9,876	43,986	49,245	1,477	50,723
2023-24	50,723	0	38,994	55,005	0	12,724	5,262	10,221	53,785	36,778	1,103	37,882
2024-25	37,882	0	38,994	56,930	0	12,724	5,262	10,579	55,667	23,895	717	24,612
2025-26	24,612	0	38,994	58,922	0	12,724	5,262	10,949	57,616	10,580	317	10,898
2026-27	10,898	0	38,994	60,985	0	1,745	5,262	11,333	59,632	7,800	234	8,034
2027-28	8,034	0	38,994	63,119	0	6,634	5,262	11,729	61,719	0	0	0
Total		0	572,745	724,604	93,652	126,897	67,255		639,101		19,502	

	Single/Semi Detached	Medium Density Multiple	2 Bedroom Apartment	1 Bedroom Apartment
DC/Unit	\$7,246	\$5,822	\$4,209	\$2,743

Notes

(1) Debt issued for expansion of Whitby WSP and expansion of Newcastle WSP

(2) Debt issued for the expansion of Bowmanville WSP

Table F.4
COMMERCIAL WATER
Development Charge (With-out Seaton)
Cash Flow Calculation of the Commercial Development Charge
(\$000's)

Year	DC Reserve Fund Opening Balance	Development Related Exp Total	Development Related Exp Commercial ¹	Development Related Expend. Inflated @ 3.5%	Issuing of New Debt	Debt Costs on new Debt 6.0%	Estimated Development m ² Commercial	Charge m ² inflated 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	4,016	2,405	541	541	0	0	95,365	20.14	1,921	5,396	162	5,558
2014-15	5,558	9,586	2,155	2,230	0	0	95,365	20.85	1,988	5,316	159	5,475
2015-16	5,475	47,362	10,646	11,404	10,084 ⁽¹⁾	0	95,365	21.58	2,058	6,213	186	6,400
2016-17	6,400	5,653	1,271	1,409	0	1,370	95,365	22.33	2,130	5,751	173	5,923
2017-18	5,923	7,074	1,590	1,825	0	1,370	95,365	23.11	2,204	4,932	148	5,080
2018-19	5,080	4,349	978	1,161	0	1,370	90,337	23.92	2,161	4,710	141	4,851
2019-20	4,851	4,349	978	1,202	0	1,370	90,337	24.76	2,237	4,516	135	4,652
2020-21	4,652	4,349	978	1,244	1,603 ⁽²⁾	1,370	90,337	25.63	2,315	5,955	179	6,134
2021-22	6,134	4,349	978	1,287	0	1,588	90,337	26.52	2,396	5,655	170	5,824
2022-23	5,824	4,349	978	1,332	0	1,588	90,337	27.45	2,480	5,384	162	5,545
2023-24	5,545	5,295	1,190	1,679	0	1,588	59,197	28.41	1,682	3,961	119	4,080
2024-25	4,080	5,295	1,190	1,737	0	1,588	59,197	29.41	1,741	2,495	75	2,570
2025-26	2,570	5,295	1,190	1,798	0	1,588	59,197	30.43	1,802	985	30	1,015
2026-27	1,015	5,295	1,190	1,861	0	218	59,197	31.50	1,865	800	24	824
2027-28	824	5,295	1,190	1,926	0	828	59,197	32.60	1,930	(0)	(0)	(0)
Total		120,299	27,040	32,636	11,687	15,836	1,224,495		30,907		1,862	

	Commercial
Development Charge/m ²	\$20.14
Development Charge/sq ft	\$1.87
Proposed Rate/sq ft	\$1.87

Notes

- (1) The Commercial expenditures are approximately 22.5% of total expenditures based on the commercial share of the total non-residential expenditures outlined on page F-4 in Appendix F
 (2) Debt issued for expansion of Whitby WSP and expansion of Newcastle WSP
 (3) Debt issued for the expansion of Bowmanville WSP

Table F.5
INDUSTRIAL WATER
Development Charge (With-out Seaton)
Cash Flow Calculation of the Industrial Development Charge
(\$000's)

Year	1	2	3	4	5	6	7	8	9	10
DC Reserve Fund Opening Balance	419	2,405	1,793	1,793	323,060	23.80	7,688	6,314	189	6,503
2013-14	419	2,405	1,793	1,793	323,060	23.80	7,688	6,314	189	6,503
2014-15	6,503	9,586	7,148	7,399	323,060	24.63	7,957	7,062	212	7,273
2015-16	7,273	47,362	35,318	37,834	323,060	25.49	8,236	(22,325)	(1,339)	(23,664)
2016-17	(23,664)	5,653	4,215	4,674	323,060	26.38	8,524	(19,814)	(1,189)	(21,003)
2017-18	(21,003)	7,074	5,275	6,053	323,060	27.31	8,822	(18,234)	(1,094)	(19,328)
2018-19	(19,328)	4,349	3,243	3,852	296,925	28.26	8,392	(14,788)	(887)	(15,675)
2019-20	(15,675)	4,349	3,243	3,987	296,925	29.25	8,686	(10,976)	(659)	(11,634)
2020-21	(11,634)	4,349	3,243	4,126	296,925	30.28	8,990	(6,770)	(406)	(7,177)
2021-22	(7,177)	4,349	3,243	4,271	296,925	31.34	9,305	(2,143)	(129)	(2,271)
2022-23	(2,271)	4,349	3,243	4,420	296,925	32.43	9,630	2,939	88	3,027
2023-24	3,027	5,295	3,948	5,569	148,048	33.57	4,970	2,428	73	2,500
2024-25	2,500	5,295	3,948	5,764	148,048	34.74	5,144	1,880	56	1,936
2025-26	1,936	5,295	3,948	5,966	148,048	35.96	5,324	1,294	39	1,333
2026-27	1,333	5,295	3,948	6,175	148,048	37.22	5,510	668	20	688
2027-28	688	5,295	3,948	6,391	148,048	38.52	5,703	(0)	(0)	(0)
Total		120,299	89,708	108,275	3,840,165		112,881	(0)	(5,025)	

	Industrial
Development Charge/m ²	\$23.80
Development Charge/sq ft	\$2.21
Proposed Rate/sq ft	\$2.21

Notes

(1) The Industrial expenditures are approximately 74.6% of total expenditures based on the industrial share of the total non-residential expenditures outlined on page F-4 in Appendix F

Table F.6
INSTITUTIONAL WATER
Development Charge (With-out Seaton)
Cash Flow Calculation of the Institutional Development Charge
(\$000's)

Year	1	2	3	4	5	6	7	8	9	10
DC Reserve Fund Opening Balance	DC Reserve Fund Opening Balance	Development Related Exp Total	Development Related Exp Institutional ⁽¹⁾	Development Related Exp Inflated @ 3.5%	Estimated Development Institutional	Charge m ² inflated 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%/debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	9	2,405	71	71	37,750	7.57	286	223	7	230
2014-15	230	9,586	283	293	37,750	7.84	296	233	7	240
2015-16	240	47,362	1,398	1,498	37,750	8.11	306	(951)	(57)	(1,008)
2016-17	(1,008)	5,653	167	185	37,750	8.40	317	(876)	(53)	(929)
2017-18	(929)	7,074	209	240	37,750	8.69	328	(840)	(50)	(891)
2018-19	(891)	4,349	128	152	32,761	9.00	295	(748)	(45)	(793)
2019-20	(793)	4,349	128	158	32,761	9.31	305	(646)	(39)	(685)
2020-21	(685)	4,349	128	163	32,761	9.64	316	(533)	(32)	(565)
2021-22	(565)	4,349	128	169	32,761	9.97	327	(407)	(24)	(431)
2022-23	(431)	4,349	128	175	32,761	10.32	338	(268)	(16)	(284)
2023-24	(284)	5,295	156	220	26,211	10.68	280	(225)	(13)	(238)
2024-25	(238)	5,295	156	228	26,211	11.06	290	(176)	(11)	(187)
2025-26	(187)	5,295	156	236	26,211	11.45	300	(123)	(7)	(131)
2026-27	(131)	5,295	156	244	26,211	11.85	310	(64)	(4)	(68)
2027-28	(68)	5,295	156	253	26,211	12.26	321	0	0	0
Total		120,299	3,551	4,286	483,610		4,615		(338)	

	Institutional
Development Charge/m ²	\$7.57
Development Charge/sq ft	\$0.70
Proposed Rate/sq ft	\$0.70

Notes

(1) The Industrial expenditures are approximately 2.9% of total expenditures based on the institutional share of the total non-residential expenditures outlined on page F-4 in Appendix F

APPENDIX G

REGIONAL SANITARY SEWERAGE SERVICE LEVELS, CAPITAL COSTS AND DC CALCULATIONS

APPENDIX G – REGIONAL SANITARY SEWERAGE

1.0 INTRODUCTION

This appendix provides the analysis completed to establish the Regional Sanitary Sewerage component of the Development Charge. The appendix presents:

- An examination of the level of service;
- A forecast of capital works expenditures required to address the increase in need for Regional sanitary sewerage service attributable to the anticipated new development in the urban areas over the period January 1, 2013 – December 31, 2027; and
- The calculation of the development charge quantum.

2.0 SERVICE LEVELS

The following table lists the historical service standards provided for sanitary sewerage by the Region of Durham. The standards are expressed in terms of design criteria, legislation, or capacity requirements as issued by the Ministry of the Environment or any other appropriate standard setting body. The table also reflects other service criteria adopted by the Regional Works Department.

REGION OF DURHAM SANITARY SEWERAGE STANDARDS	
Service Component	Service Standards Applied
Treatment Plants	• Design criteria based on historical flow data for the individual municipality; A range for the average day flow of 454-500 litres/capita/day is used which includes residential, commercial and institutional demands • Treatment based on the MOE guidelines and is site specific. MOE policies and directive are used to establish the final Certificate of Approval (C of A)
Pumping Stations	• Based on MOE guidelines and system design criteria
Collection Systems	• Based on MOE and Region of Durham design guidelines and standards

The expenditures described in the capital works forecast presented in the following Tables G.1 and G.2 provide a similar level of service to that indicated in the table.

3.0 CAPITAL WORKS FORECAST

3.1 Development of Capital Works Program

A fifteen year capital works program was prepared for the period 2013-2027, which identifies the projected expenditures, expressed in 2013 dollars, required to address the increase in need for Regional sanitary sewerage service attributable to the anticipated development (Appendix A). For the purposes of the Development Charge rate calculation, this forecast has been lagged to match the time period of the development forecasts (i.e. July 1, 2013 to June 30, 2028).

The program shown in Table G.1 and G.2 and Figures G.1 to G.8 is based on information currently available on the capacity of the existing Regional sanitary sewerage system, combined with an assessment of the improvements and expansions required to accommodate development over the next fifteen years. It includes the construction of works required to correct existing deficiencies in the system, and plant expansions, storage reservoirs, pumping stations, forcemains and sewer system extensions required as a result of both new development and redevelopment within the urban areas.

3.2 Sequential Development

The basic premise underlying the forecast of capital works requirements is that development will be sequential in nature with the progressive extension / expansion of the Regional sanitary sewerage system occurring as development proceeds within the urban areas.

3.3 Forecast Periods

Tables G.1 and G.2 divide the projected capital works program into three forecast periods. The first five year period (2013-2017) is similar to the Region's Annual Capital Budget and Four Year Forecast for the Regional sanitary sewerage system. This forecast is subject to review and approval by Regional Council on an annual basis. The works included in the second (2018-2022) and the third periods (2023-2027) have been assigned to these time frames based on information currently available on existing system capacities, operations experience and estimates of future demand.

The timing of implementation for the various projects identified in the forecasts and associated cost estimates are preliminary in nature. Project priorities, construction timing and cost estimates will be reviewed on an ongoing basis and will be subject to review and approval annually by Regional Council.

3.4 Allocation of Capital Costs

Tables G.1 and G.2 include works required to correct existing system deficiencies which will benefit both existing and new development, as well as system improvements and expansions required solely to support growth during the forecast period. An assessment has been carried out to allocate the total cost of the various projects contained in the forecast between existing development (non-growth), new residential development (Table G.1) and new non-residential development (Table G.2). This assessment distributes the capital cost of the projects contained in the forecast based on the demand imposed on the system. Demands were assessed on either a flow or population equivalent basis, depending upon the situation.

In addition, the tables identify deductions in accordance with the Development Charges Act, 1997 for:

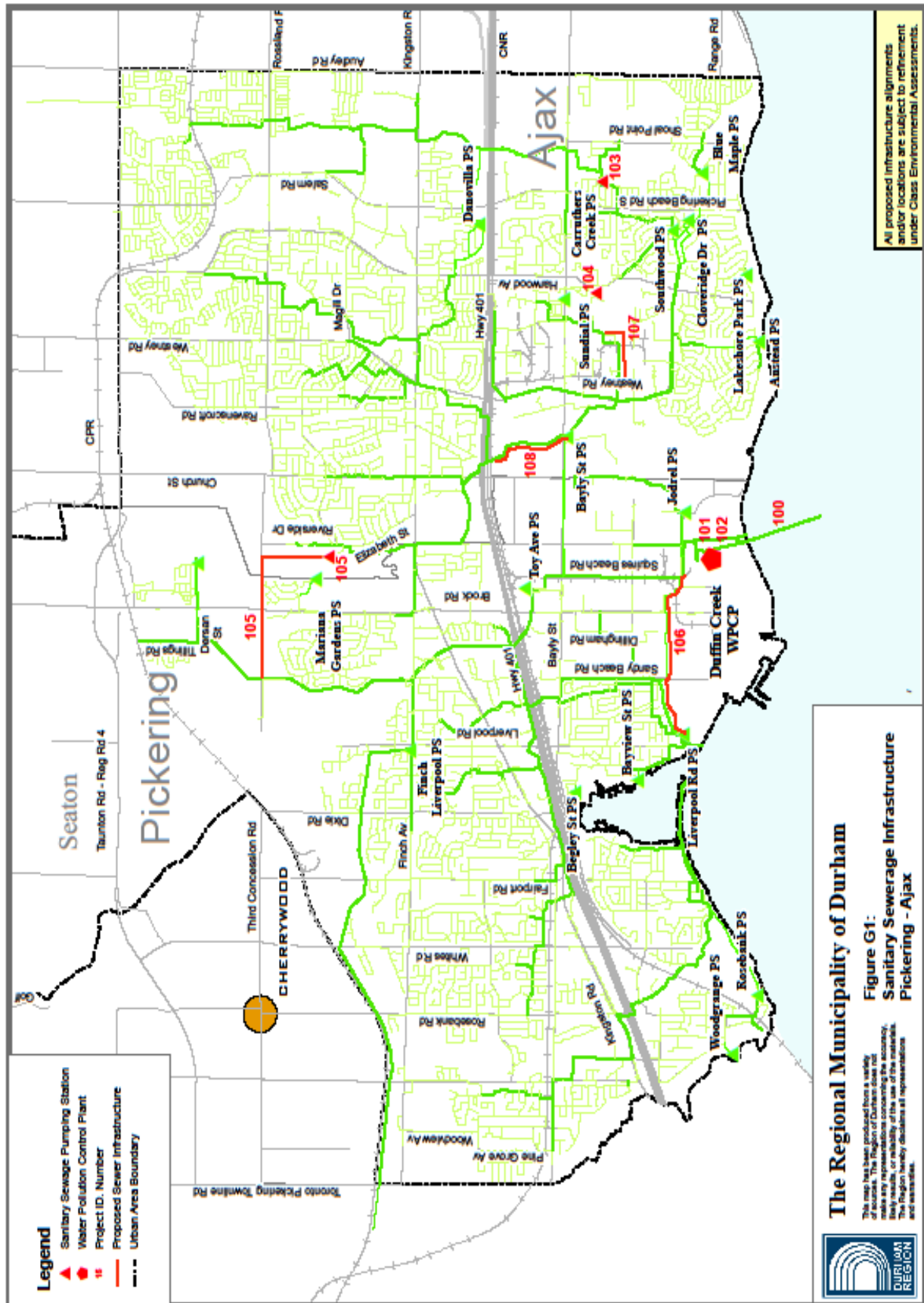
- "Benefit to Existing Development", which is the anticipated value of new capital works attributable to existing development. This deduction is assessed on a project by project basis and is primarily applicable to reconstruction, rehabilitation and replacement type projects;
- "Post Period Benefit", which is the value of anticipated surplus capacity at the end of the forecast period to be recovered from subsequent development. Deductions are made for oversized capital works consisting of water pollution control plants;
- "Grants, Subsidy and Other", which is the funding anticipated or received from sources other than the Regional Municipality of Durham; and
- "Seaton" and "Federal Lands", the sanitary sewerage infrastructure to service the Seaton and Federal Lands have been isolated and are not included in the Region Wide Development Charge. The Seaton share is to be covered via a separate area specific development charge by-law.

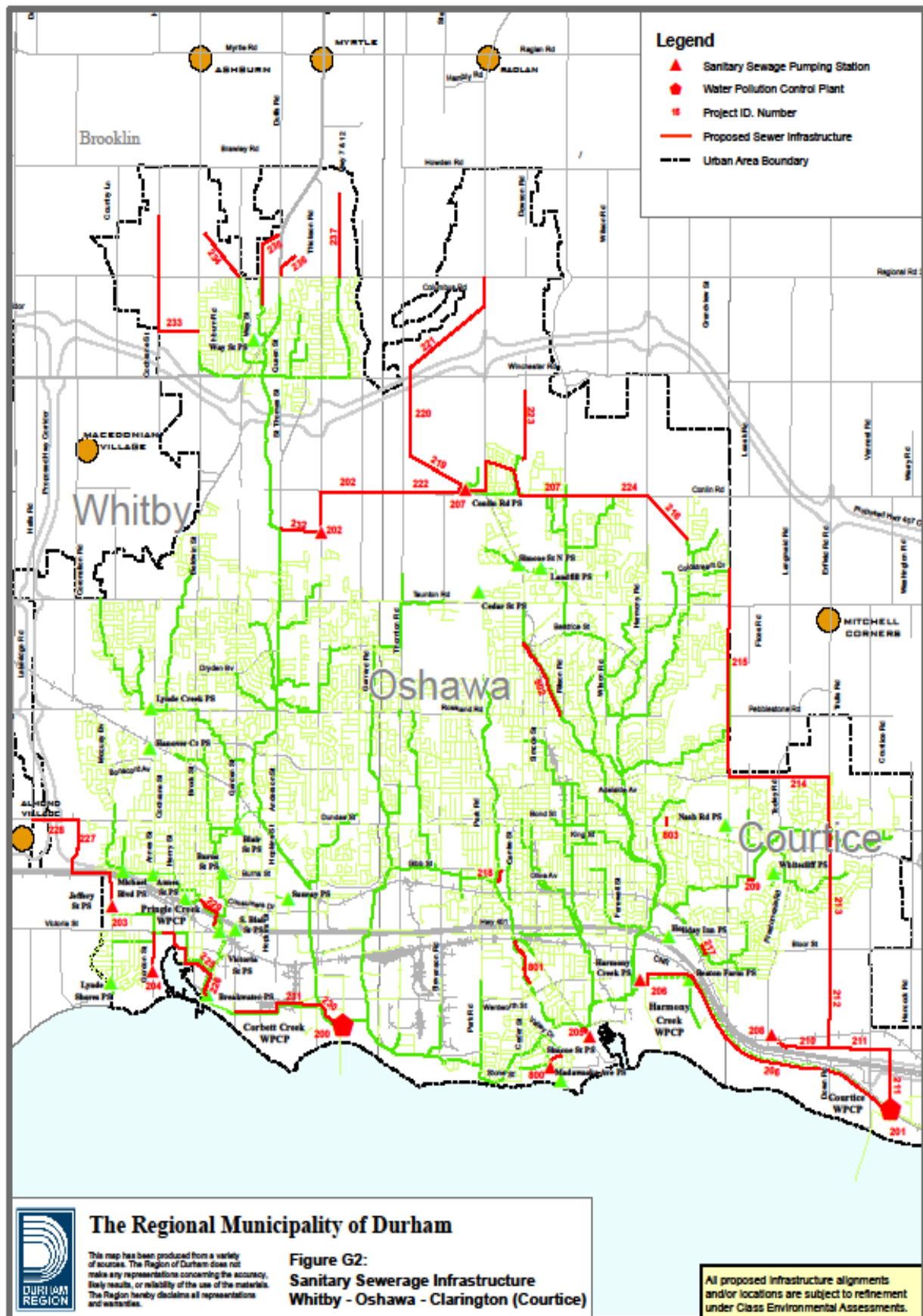
The following average percentages have been used in allocating the eligible growth-related capital costs between new residential and new non-residential development in Tables G.1 and G.2. The attributions, which are based on data obtained from actual water consumption records, plant operations records, and conventional design criteria, reflect relative utilization of eligible growth-related capital costs.

SUMMARY OF GROWTH RELATED CAPITAL UTILIZATION FOR RESIDENTIAL AND NON-RESIDENTIAL PURPOSES BY TYPE OF CAPITAL EXPENDITURE	
Land Use Category	Percentage of Capital Attributable to Growth
<u>Residential</u>	
- Water Pollution Control Plants	53.3
- Other	74.3
<u>Non-Residential</u>	
Water Pollution Control Plants (All Non-Res):	
i) Industrial	34.8
ii) Commercial	10.5
iii) Institutional	1.4
Other (All Non-Res):	
i) Industrial	19.1
ii) Commercial	5.8
iii) Institutional	0.8
<u>Note:</u>	
"Other" refers to Sanitary Sewerage Collection System components including sanitary sewers and pumping stations.	

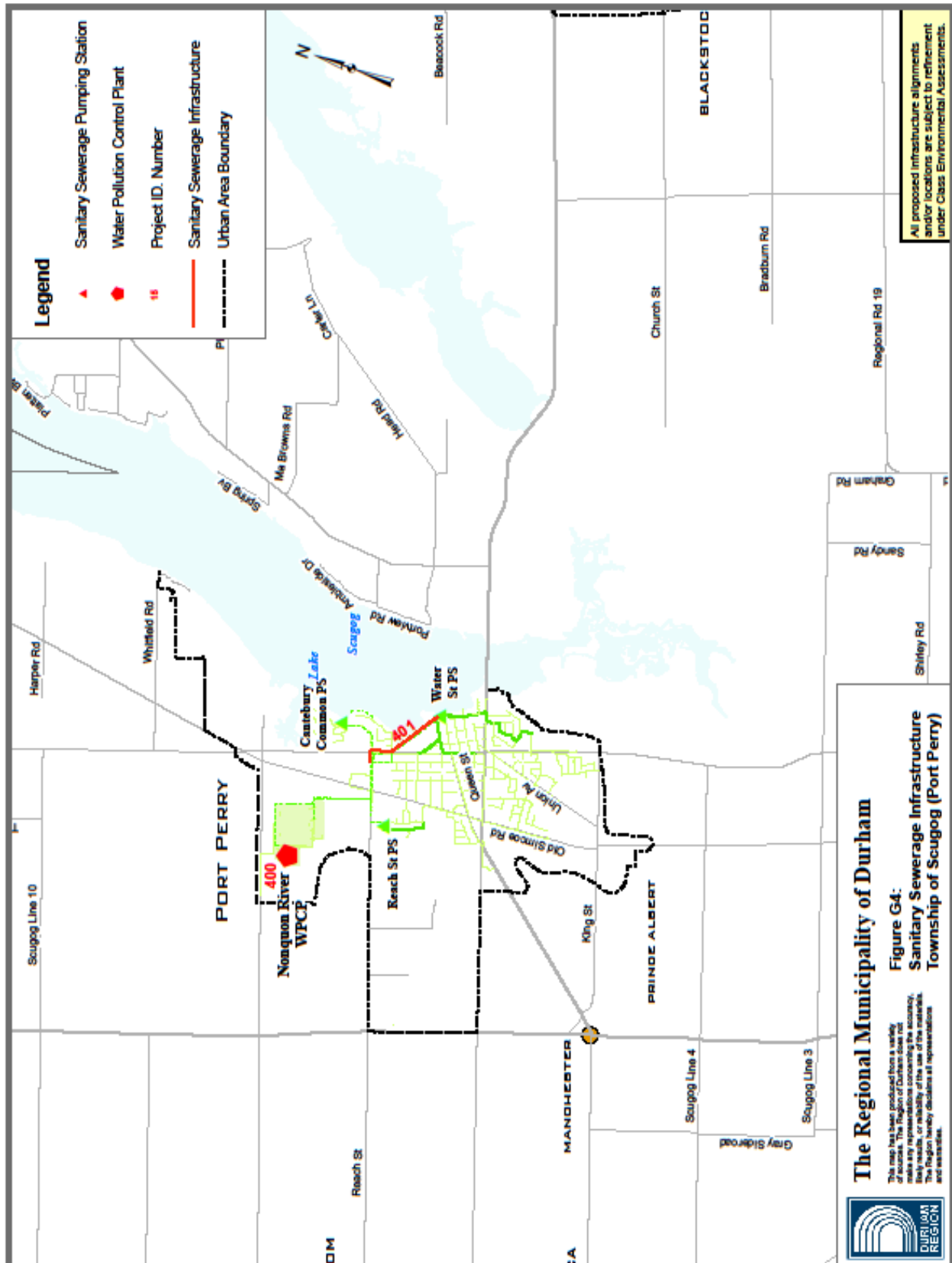
4.0 **CALCULATION OF DEVELOPMENT CHARGE QUANTUM**

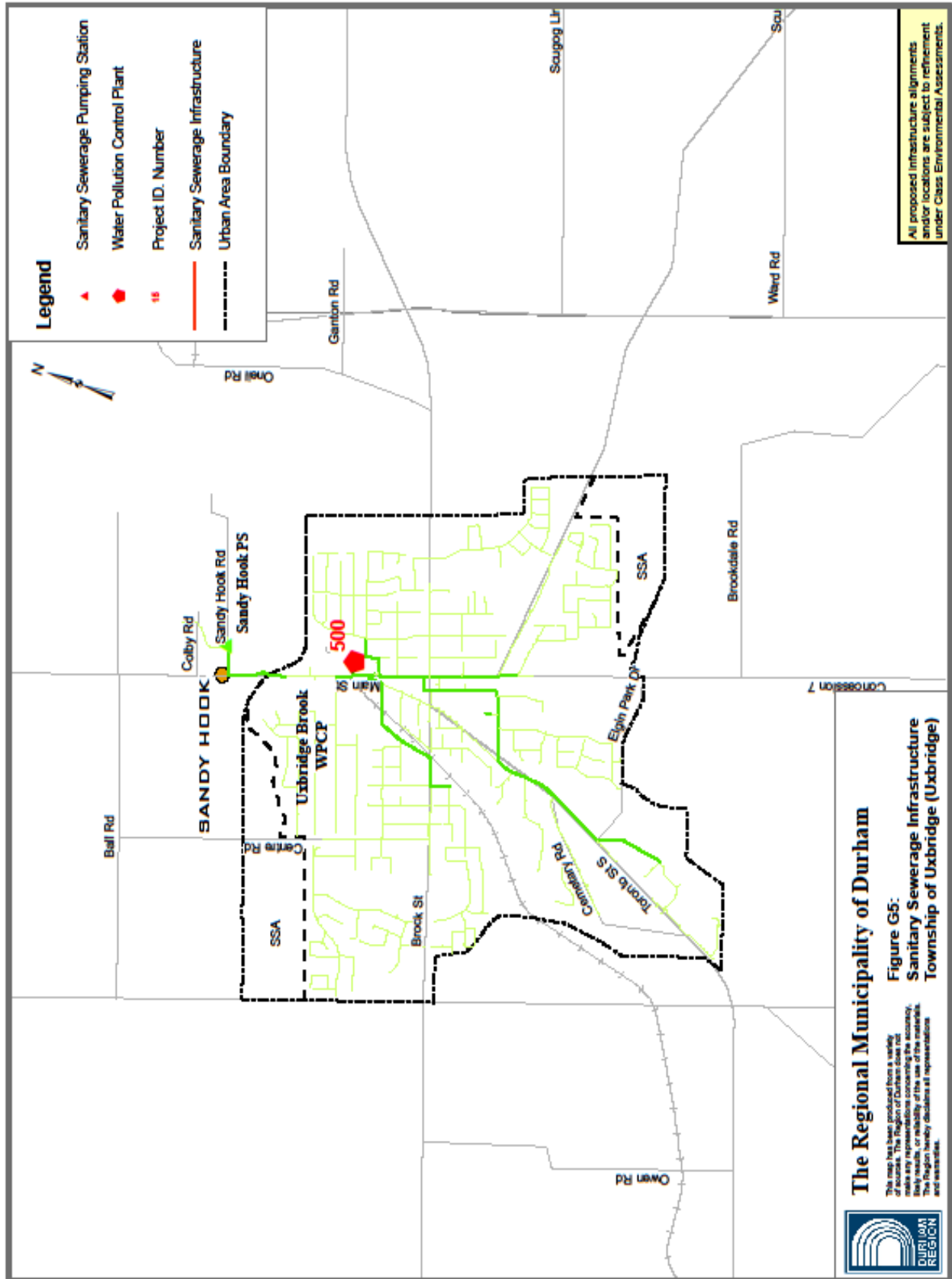
Tables G.3 to G.6 determine the proposed Development Charge per unit for new residential and new non-residential development within the urban areas in the Region of Durham. These tables summarize the Net Growth Related Capital Costs against projected new development during the fifteen year forecast, including allowances for deducting Uncommitted Excess Capacity from the future requirement and deducting Existing Reserve Fund Balances.

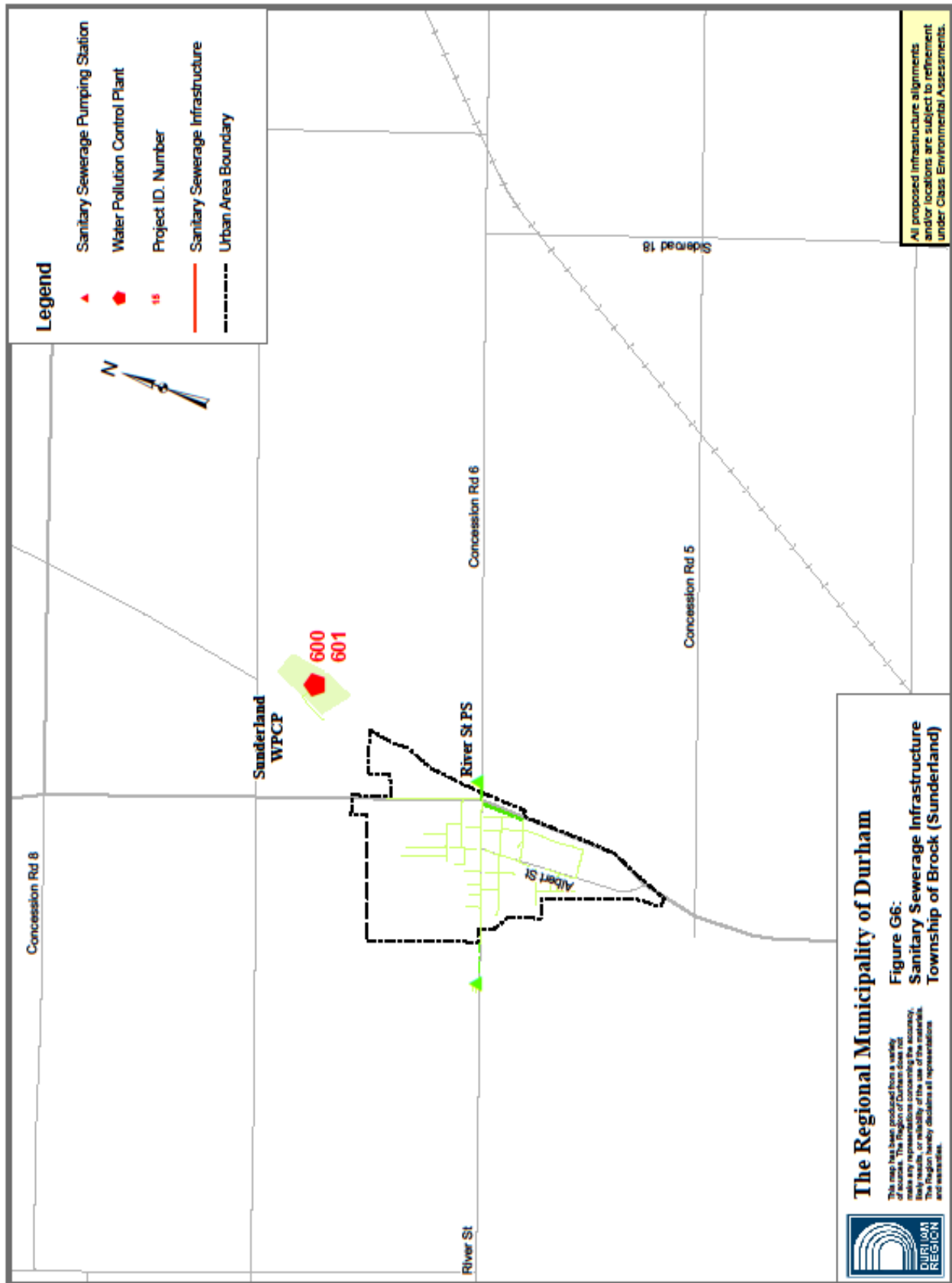


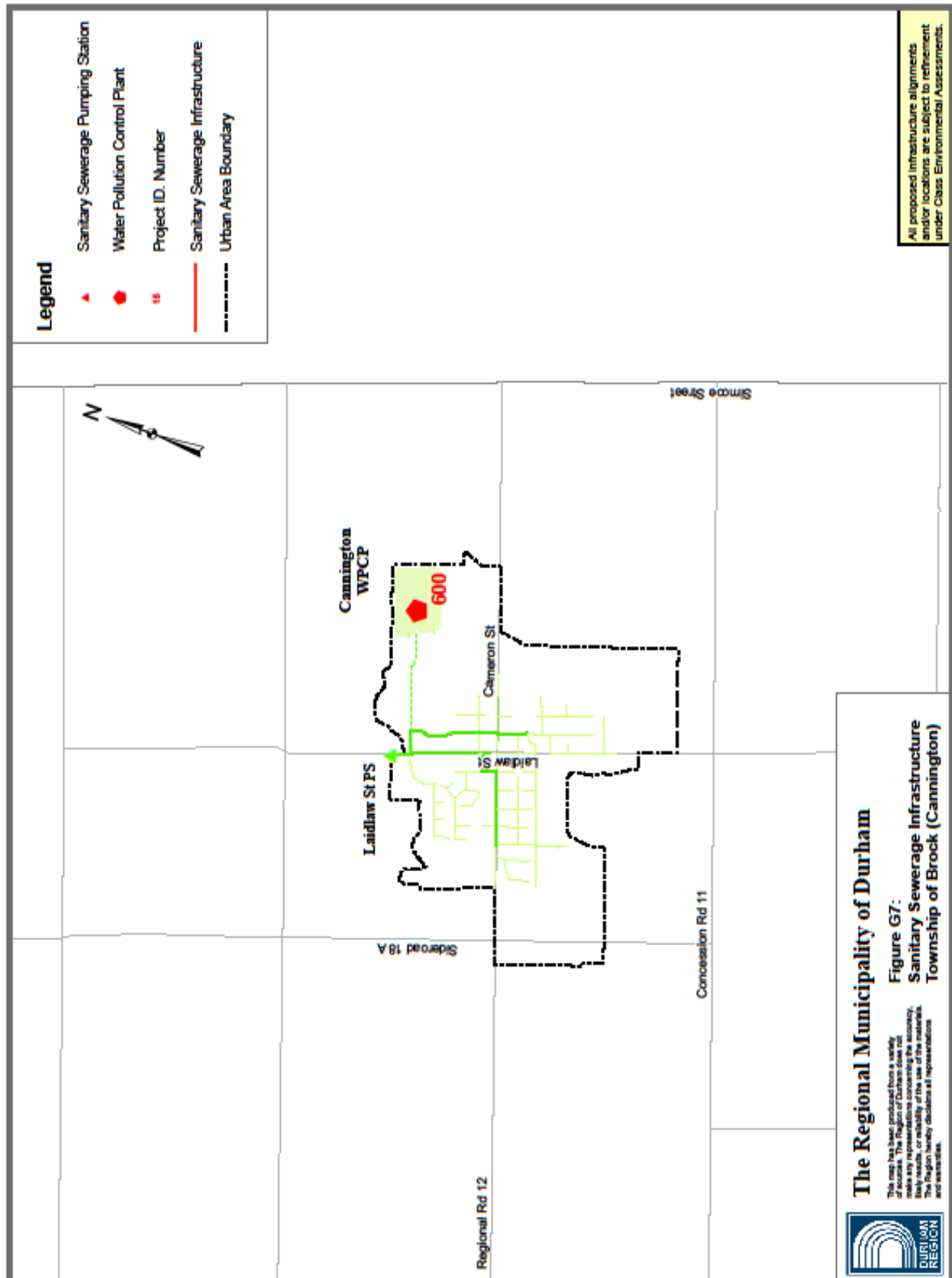












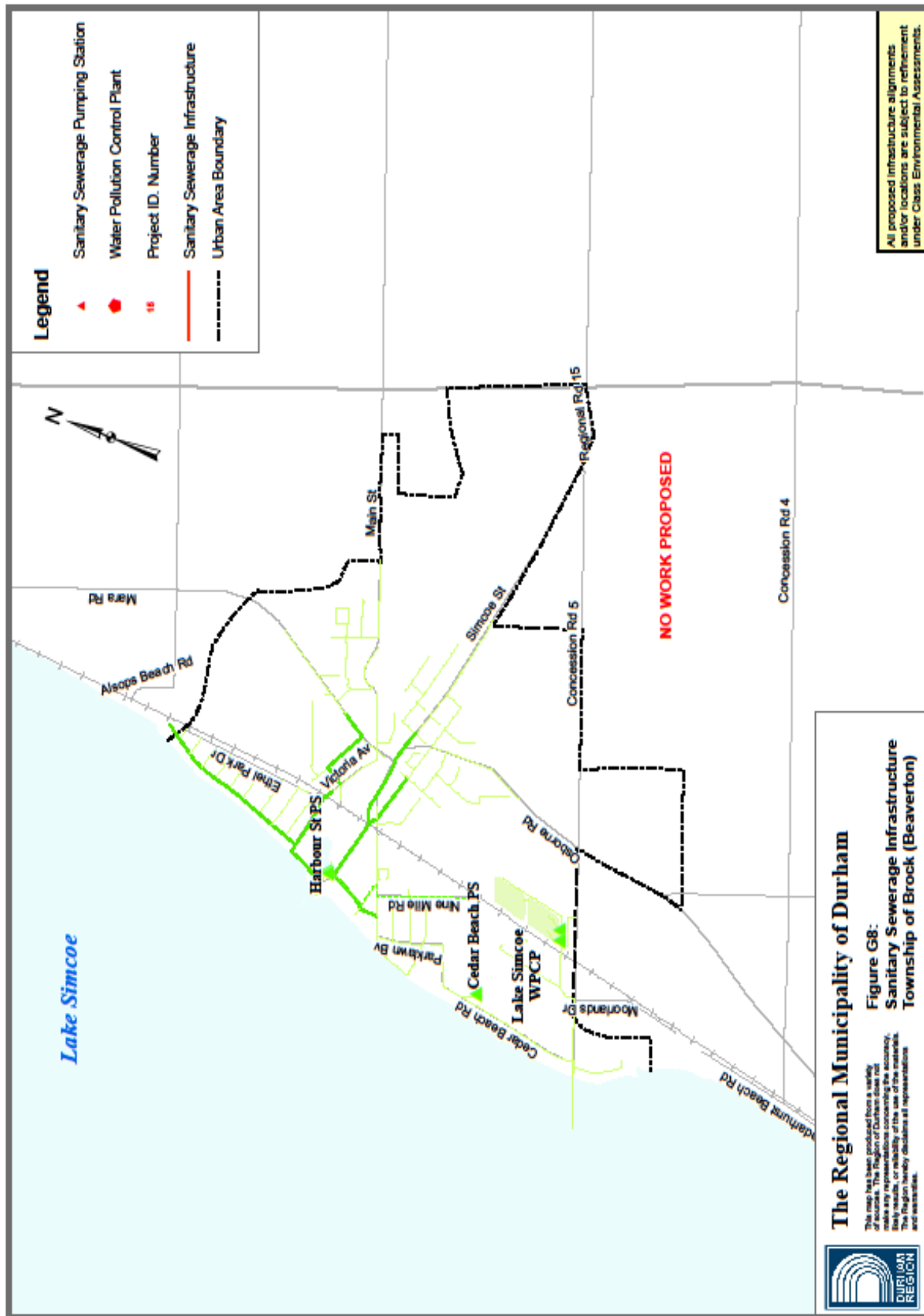


Table G.1 - Regional Sanitary Sewerage: Capital Cost Summary: Residential (Year 2013 - 2027)																	
Item #	Description	Gross (Cost) (2013 Estimated Cost)	Benefit to Existing Development	Post Period Benefit	Grants, Subsidy, & Other	Development Related				Total Net Residential Growth Cost	BY YEAR						
						Seaton	Federal Lands	Non-Resid.	Resid.		2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
Pickering / Ajax																	
Water Pollution Control Plants (WPCP)																	
100	Durham's Share to Address Outfall Limitations at Duffin WPCP	41,500	43.93%	14.67%	0.00%	17.07%	7.33%	7.94%	9.06%	3,760						3,760	2,675
101	Duffin WPCP Allocation of 45.5 MLD (10 MGD) for Durham Region	60,000	0.00%	52.17%	0.00%	11.54%	26.09%	4.76%	5.44%	587							
102	Duffin Creek WPCP Stage 1 and Stage 2 Upgrades (Durham Share)	53,600	57.76%	0.00%	0.00%	21.80%	0.00%	9.55%	10.89%	5,839							
	Sub-Total	155,100	49.19%	37.39%	0	25.69%	18.96%	11.26%	12.86%	587	1,946	1,946	1,947	0	3,760	2,675	
Pumping Stations (SSPS)																	
103	Canterbury Creek SSPS - add pumps and standby power	1,350	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,003							
104	Hawwood SSPS and land south of Bayly St. / Hawwood Ave.	3,500	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	2,601						2,601	
105	SSPS, foremain and land - Riverside Dr./ Roseland Rd. - Ajax	36,800	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	27,342						743	26,999
	Sub-Total	41,650	0	0	0	0	0	10.70%	30.94%	30,946	0	1,003	0	0	3,344	26,999	
Trunk Sanitary Sewers (TSS)																	
106	900 mm foremain twinning on easement from Liverpool Rd. SSPS to McKay Rd. - Pickering	8,400	78.00%	0.00%	0.00%	0.00%	0.00%	5.65%	16.35%	1,373	490						
107	525 mm Monarch TSS twinning on Monarch Ave. and on easement from Bayly St. to Mackenzie Ave. - Ajax	1,100	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	817							817
108	1350 mm twinning of Duffin Creek TSS on easement from Bayly St. to Hwy. 401- Ajax	4,300	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	3,195							3,195
	Sub-Total	13,800	6.52%	0	0	0	0	1.86%	5.35%	5,385	490	883	0	0	0	4,012	
	Total Pickering/Ajax	210,550	55.74%	37.39%	0	25.69%	18.69%	23.83%	49.19%	49,193	1,078	3,832	1,946	1,947	7,104	33,286	
Whitby/Oshawa/Clarington/Courtice																	
Water Pollution Control Plants (WPCP)																	
200	Expansion of Conker Creek WPCP from 81,828 to 108,104 m³/d (18 to 24 MGD) - Whitby	145,100	0.00%	79.22%	0.00%	0.00%	0.00%	9.70%	11.08%	16,071				89	111	111	15,761
201	Expansion of Courtice WPCP from 68,200 to 136,400 m³/d (15 to 30 MGD) - Courtice	77,800	0.00%	0.00%	0.00%	0.00%	0.00%	46.70%	53.30%	41,467					533	40,934	
	Sub-Total	222,900	0	114.94%	0	0	0	50.41%	57.53%	57,538	0	0	0	89	644	41,045	15,761
Pumping Stations (SSPS)																	
202	Thickson Rd SSPS & 750 mm foremain, (Brooklin Diversion) and land - Whitby	23,259	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	17,281						17,281	
203	Jeffrey St. SSPS, foremain and land - Whitby	13,800	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	10,253					743	372	9,139
204	Gordon St. SSPS and foremain - Whitby	5,000	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	3,715					186	3,344	
205	Simcoe St. South SSPS (Replacement of pumping station and foremain) and land - Oshawa	5,520	10.00%	0.00%	0.00%	0.00%	0.00%	90.00%	0.00%	0						0	0
206	Harmony SSPS expansion and foremain twinning, Oshawa	26,795	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	19,909						743	19,166
207	Conlin Road SSPS expansion beyond 365 Is & foremain twinning - Oshawa	61,985	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	46,055				372	3,566	42,117	
208	Baseline Road SSPS and foremain (oversizing) - Courtice	3,400	52.00%	0.00%	0.00%	0.00%	0.00%	12.34%	35.66%	1,213						1,213	1,213
	Sub-Total	139,759	2.32%	0	0	0	0	39.01%	98.45%	98,426	0	0	557	4,955	3,715	69,280	20,378
Trunk Sanitary Sewers (TSS)																	
209	900 mm twinning of Farewell Creek TSS east of Darlington Blvd. - Courtice	350	34.00%	0.00%	0.00%	0.00%	0.00%	16.96%	49.04%	172							172
210	975 mm South-West Courtice TSS on Baseline Rd. from 650 m west of Trulls Road to Trulls Road - Courtice	3,200	52.00%	0.00%	0.00%	0.00%	0.00%	12.34%	35.66%	1,141						178	785

Table G.1 - Regional Sanitary Sewerage: Capital Cost Summary: Residential (Year 2013 - 2027)

Item #	Description	Gross Cost) (2013 Estimated Cost)	Benefit to Existing Development	Post Period Benefit	Grants, Subsidy, & Other	Development Related				Total Net Residential Growth Cost	BY YEAR					2018 - 2023	
						Seaton	Federal Lands	Non-Resid.	Resid.		BY YEAR						
											2013	2014	2015	2016	2017		
		\$ 000's	%	%	%	%	%	%	%	\$ 000's							
211	2200 mm Courice TSS from Courice WPCP to Baseline Rd./Courice Rd. - Phase 1 - Courice	22,050	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	16,383	1,486	4,458	10,439				
212	1800 mm Courice TSS on Baseline Rd. and Trulls Rd. from Baseline Rd./Courice Rd. to Bloor St. - Phase 2 - Courice	22,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	16,718			372	16,346			
213	1800 mm Courice TSS on Trulls Rd. from Bloor S. to Adelaide Ave. extension - Phase 3 - Courice	34,325	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25,503			372		25,132		
214	1800 mm Courice TSS on future Adelaide Avenue extension from Trulls Rd. to Townline Rd. - Phase 4 - Courice	12,825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9,529					743	8,786	
215	1800 mm Courice TSS on Townline Rd. from Adelaide Ave. extension to Coldstream Dr. - Phase 5 - Oshawa/Courice	12,675	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9,418					743	8,675	
216	1800 mm Courice TSS oversizing through future development from Grandview Street to Conlin Rd. - Oshawa/Courice	5,775	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4,291			576		3,715		
217	675 mm twinning of Farewell Creek TSS on easement west of Grandview St. - Oshawa	2,650	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1,969					186	1,783	
218	750 mm twinning of Oshawa Creek TSS from Gdn St. to Greenwood Ave. - Oshawa	1,025	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	762					186	576	
219	1350 mm North Oshawa Creek (West Branch) TSS - Conlin Road SSPS to Britannia Rd. - Oshawa	6,775	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5,034					557	4,477	
220	1050 mm North Oshawa Creek (West Branch) TSS - Britannia Rd. to Winchester Rd. - Oshawa	4,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3,344					557	2,786	
221	525 mm North Oshawa Creek (West Branch) TSS - Winchester Rd. to Columbus Rd. - Oshawa	6,400	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4,755					557	4,198	
222	1200 mm Conlin Rd. W. TSS, Oshawa/Whitby Boundary to Conlin Road SSPS - Oshawa	5,750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4,272					4,272		
223	1050 mm North Oshawa Creek (East Branch) TSS on easements - Britannia Rd. to Winchester Rd. - Oshawa	3,900	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2,888					2,888		
224	525 mm Conlin Rd. TSS, Wilson Rd. to Hamony Rd. - Oshawa	725	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	539					539		
225	1200 mm twinning of Port Whitby TSS from 150 m west of Henry St. to Harbour Rd. - Whitby	5,700	0.00%	0.00%	4.91%	0.00%	0.00%	0.00%	0.00%	4,027	2,367	1,660					
226	1200 mm twinning Harbour St. TSS from 400 m north of Water St. to Breakwater SSPS - Whitby	1,725	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1,282					1,282		
227	900 mm West Whitby TSS on easement from Jeffrey St. SSPS to Hwy 2 - Whitby	15,100	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11,219					11,219		
228	900 mm West Whitby sub-bunk on Dundas St. from Coronation Rd to Hells Rd.	1,975	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1,321					1,321		
229	900 mm Ash Creek TSS from Consumers Dr./Green Rd. to Ash Creek TSS at Pringle Creek WPCP - Whitby	19,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14,489					14,489		
230	1350 mm Corbett TSS on easement from Wentworth St. to Corbett Creek WPCP - Whitby	2,350	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1,746					1,746		
231	1350 mm Corbett TSS on easement from South Blair Street to Thickson Road - Whitby	5,210	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3,871					3,871		
232	1050 mm Brooklin TSS Diversion on easement from Anderson St. to Thickson Rd. SSPS - Whitby	4,025	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2,991					2,991		
233	600 mm West Brooklin TSS west of Ashburn Rd.	10,825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8,043					8,043		
234	450 mm West Central Brooklin TSS west of Hwy St.	1,575	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1,170					1,170		
235	450 mm/600 mm Central Brooklin TSS	4,050	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3,009					3,009		
236	600 mm Central East Brooklin TSS east of Baldwin St.	875	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	660					650		
237	450 mm East Brooklin TSS east of Thickson Rd.	2,625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1,950					1,950		
Sub-Total		220,960	1,981	0	280	0	0	56,206	362,494	162,464	3,853	6,694	11,182	16,346	30,883	46,616	46,920
Total Whitby/Oshawa/Claington(Courice)		583,619	4,301	114,948	280	0	0	145,632	318,458	318,458	3,853	6,694	11,739	20,930	35,242	156,941	83,059
Clarington (Bowmanville)																	
Water Pollution Control Plants (WPCP)																	
300	Expansion of Port Darlington WPCP 27,276 to 42,000 m³/d (from 6 to 9 MGD)	47,000	0.00%	54.64%	0.00%	0.00%	0.00%	21.18%	24.15%	11,363					484	10,880	
301	Outfall at Port Darlington WPCP	25,000	0.00%	0.00%	0.00%	0.00%	0.00%	46.70%	53.30%	13,325					533	12,792	
Sub-Total		72,000	0	25,681	0	0	0	21,631	24,688	24,688	0	0	0	0	0	1,017	23,672
Pumping Stations (SPS)																	
302	Northeast SPS, foreman and land - Conc. Rd. 3 and Means Ave.	3,500	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	2,601							2,601
Sub-Total		3,500	0	0	0	0	0	900	2,601	2,601	0	0	0	0	0	0	2,601

Table G.1 - Regional Sanitary Sewerage: Capital Cost Summary: Residential (Year 2013 - 2027)																	
Item #	Description	Gross Cost (2013 Estimated Cost)	Benefit to Existing Development	Post Period Benefit	Grants, Subsidy, & Other	Development Related			Total Net Residential Growth Cost	BY YEAR							
						Seaton	Federal Lands	Non-Resid.		Resid.	2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
Trunk Sanitary Sewers (TSS)																	
303	525 mm Wining of Spry Ave. TSS from Baseline Rd. to N/L Spry Ave.	660	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	490						490
304	1350 mm Baseline Rd. TSS from Simpson Ave. to Lamb's Rd.	2,650	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,969			186	1,783		
305	750 mm Lamb's Rd. TSS from Baseline Rd. to Highway No. 2	1,350	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,033				74	929	
306	525 mm Super Creek TSS from Means Ave. to Concession Rd. 3	1,155	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	868				141		717
307	600 mm East Super Creek TSS on easement from Bailey Mill Cr. to 450 m east of Bailey Mill Cr.	2,315	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,720						
308	1350 mm Super Creek TSS twinning on easement from Port Darlington WPCP to Baseline Rd.	5,615	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	4,172				372	3,800	
309	900 mm Super Creek TSS twinning on easement from Baseline Rd. to 300 m north of Baseline Rd.	800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	594						594
Sub-Total		14,545	0	0	0	0	0	0	3,358	10,807	10,807	1,720	0	0	557	5,799	1,802
Total Clarington (Bowmanville)		90,045	0	25,681	0	0	0	0	26,269	38,096	38,096	1,720	0	0	557	5,799	1,945
Clarington (Newcastle)																	
Water Pollution Control Plants (WPCP)																	
310	Expansion of Newcastle WPCP from 4,086 to 8,170 m³/d (0.9 to 1.8 MGD)	18,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.70%	53.30%	9,594			533	9,061		
311	Expansion of Newcastle WPCP from 8,170 to 16,340 m³/d (1.8 to 3.6 MGD)	40,000	0.00%	62.06%	0.00%	0.00%	0.00%	0.00%	17.72%	20.22%	8,089						8,089
312	Outfall at Newcastle WPCP	25,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.70%	53.30%	13,325						13,325
Sub-Total		83,000	0	24,824	0	0	0	0	27,168	31,008	31,008	0	533	9,061	0	0	21,414
Pumping Stations (SSPs)																	
313	Port of Newcastle SSPS & forcemain (oversizing)	1,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	743			74	669		
Sub-Total		1,000	0	0	0	0	0	0	257	743	743	0	74	669	0	0	0
Trunk Sanitary Sewers (TSS)																	
314	600 mm Foster Creek TSS twinning on easement from Milligan St. to the north side of Hwy. 401	2,900	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	2,155			149	2,006		
315	450 mm Foster Creek TSS on North St. from Wilnot St. to north side of CPR (oversizing)	1,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,115				1,115		
316	900 mm Wilnot Creek TSS on Toronto St. & easement from Newcastle WPCP to Rudell Rd. (N/S of Hwy. 401)	4,625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	3,436			223	3,213		
317	900 mm Wilnot Creek TSS on easement (through future development) from Rudell Rd. to King St. (oversizing)	2,700	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	2,006			372	1,635		
318	825 mm Wilnot Creek TSS on easement (through future development) from King St. to Hwy. 115/35 (oversizing)	1,325	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	984						984
Sub-Total		13,050	0	0	0	0	0	0	3,354	9,686	9,686	372	5,591	2,749	0	0	984
Total Clarington (Newcastle)		97,050	0	24,824	0	0	0	0	30,779	41,447	41,447	372	6,198	12,479	0	0	22,398
Scugog (Port Perry)																	
Water Pollution Control Plants (WPCP)																	
400	Expansion of Nonquon WPCP from 3860 to 5900 m³/d (0.85 to 1.3 MGD)	22,900	15.00%	0.00%	0.00%	0.00%	0.00%	0.00%	39.70%	45.31%	10,375			10,375			
Sub-Total		22,900	3,435	0	0	0	0	0	9,090	10,375	10,375	0	0	0	0	0	0
Trunk Sanitary Sewers (TSS)																	
401	Twinning of forcemain on easement from Water St. SSPS to RR 8/04 Since Rd.	3,900	85.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.89%	11.15%	435						
Sub-Total		3,900	3,315	0	0	0	0	0	150	435	435	0	0	435	0	0	0
Total Scugog (Port Perry)		26,800	6,750	0	0	0	0	0	9,241	10,810	10,810	0	435	0	0	0	0

Table G.2 - Regional Sanitary Sewerage: Capital Cost Summary: Non - Residential (Year 2013 - 2027)																
Growth - Related Non - Residential Share Service: Sanitary Sewerage 2013 D.C. Study										Grants, Subsidy, & Other		Development Related			Total Net Non- Residential	
Item #	Description	Gross Cost) (2013 Estimated Cost)	Benefit to Existing Development	Post Period Benefit	%	%	%	%	%	%	%	%	BY YEAR			
													2013	2014	2015	2016
		\$ 000's	%	%	%	%	%	%	%	%	%	\$ 000's				
Pickering / Ajax																
Water Pollution Control Plants (WPCP)																
100	Durham's Share to Address Outfall Limitations at Duffin WPCP	41,500	43.93%	14.67%	0.00%	17.07%	7.33%	7.94%	9.06%	3,295						
101	Duffin WPCP Allocation of 45.5 MLD (10 MGD) for Durham Region	60,000	0.00%	52.17%	0.00%	11.54%	26.09%	4.76%	5.44%	2,858	514					3,295
102	Duffin Creek WPCP Stage 1 and Stage 2 Upgrades (Durham Share)	53,600	57.76%	0.00%	0.00%	21.80%	0.00%	9.55%	10.89%	5,116		1,705	1,705	1,705		2,344
	Sub-Total	155,100	49.19%	37.39%	0	25.693	18.696	11.269	12.882	11,269	514	1,705	1,705	1,705	0	2,344
Pumping Stations (SSPS)																
103	Canuthers Creek SSPS - add pumps and standby power	1,350	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	347						
104	Harwood SSPS and land south of Bayly St. / Harwood Ave.	3,500	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	900						900
105	SSPS, foremain and land - Riverside Dr./ Rossland Rd. - Ajax	36,800	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	9,458						9,201
	Sub-Total	41,650	0	0	0	0	0	10.704	30.946	10,704	0	347	0	0	0	9,201
Trunk Sanitary Sewers (TSS)																
106	900 mm foremain twinning on easement from Liverpool Rd. SSPS to McKay Rd. - Pickering	8,400	78.00%	0.00%	0.00%	0.00%	0.00%	5.65%	16.53%	475	170	305				
107	525 mm Monarch TSS twinning on Monarch Ave. and on easement from Bayly St. to Mackenzie Ave. - Ajax	1,100	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	283						283
108	1350 mm twinning of Duffin Creek TSS on easement from Bayly St. to Hwy. 401- Ajax	4,300	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,105						1,105
	Sub-Total	13,800	6.552	0	0	0	0	1.863	5.365	1,863	170	305	0	0	0	1,388
	Total Pickering/Ajax	210,550	55.742	37.390	0	25.693	18.696	23.836	49.193	23,836	684	2,358	1,705	1,706	0	12,932
Whitby/Oshawa/Clarington/Courtice																
Water Pollution Control Plants (WPCP)																
200	Expansion of Corbett Creek WPCP from 81,828 to 109,104 m ³ /d (18 to 24 MGD) - Whitby	145,100	0.00%	79.22%	0.00%	0.00%	0.00%	9.70%	11.08%	14,081					78	97
201	Expansion of Courtice WPCP from 88,200 to 136,400 m ³ /d (15 to 30 MGD) - Courtice	77,800	0.00%	0.00%	0.00%	0.00%	0.00%	46.70%	53.30%	36,333					467	35,866
	Sub-Total	222,900	0	114.948	0	0	0	50.413	57.538	50,413	0	0	0	78	564	35,863
Pumping Stations (SSPS)																
202	Thickson Rd SSPS & 750 mm foremain, (Brooklin Division) and land - Whitby	23,259	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	5,977						5,977
203	Jeffrey St. SSPS, foremain and land - Whitby	13,800	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	3,547				257	129	3,161
204	Gordon St. SSPS and foremain - Whitby	5,000	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,295				64	1,157	
205	Simcoe St. South SSPS (Replacement of pumping station and foremain) and land - Oshawa	5,520	10.00%	0.00%	0.00%	0.00%	0.00%	90.00%	0.00%	4,988						4,988
206	Harmony SSPS expansion and foremain twinning - Oshawa	26,795	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	6,886						257
207	Conlin Road SSPS expansion beyond 365 f/s & foremain twinning - Oshawa	61,985	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	15,930			129	1,234	14,568	6,629
208	Baseline Road SSPS and foremain (oversizing) - Courtice	3,400	52.00%	0.00%	0.00%	0.00%	0.00%	12.34%	35.66%	419						419
	Sub-Total	139,759	2.320	0	0	0	0	39.013	86.425	39,013	0	0	193	1,555	1,285	23,964
	Total Whitby/Oshawa/Clarington/Courtice															12,017
Trunk Sanitary Sewers (TSS)																
209	900 mm twinning of Fairwell Creek TSS east of Darlington Blvd. - Courtice	350	34.00%	0.00%	0.00%	0.00%	0.00%	16.96%	49.04%	59						59
210	975 mm South-West Courtice TSS on Baseline Rd. from 650 m west of Trulls Road to Trulls Road - Courtice	3,200	52.00%	0.00%	0.00%	0.00%	0.00%	12.34%	35.66%	395					62	271

Table G.2 - Regional Sanitary Sewerage: Capital Cost Summary: Non - Residential (Year 2013 - 2027)

Table G.2 - Regional Sanitary Sewerage: Capital Cost Summary: Non - Residential (Year 2013 - 2027)																	
Item #	Description	Gross Cost (2013 Estimated Cost)	Benefit to Existing Development	Post Period Benefit	Grants, Subsidy, & Other	Development Related				Total Net Non- Residential Growth Cost	BY YEAR						
						Seaton	Federal Lands	Non- Resid.	Resid.		2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
		\$ 000's	%	%	%	%	%	%	%	\$ 000's							
211	2100 mm Courtoise TSS from Courtoise WPCP to Baseline Rd./Courtoie Rd. - Phase 1 - Courtoie	22,050	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	5,667	514	1,542	3,611			
212	1800 mm Courtoie TSS on Baseline Rd. and Trulls Rd. from Baseline Rd./Courtoie Rd. to Blair St. - Phase 2 - Courtoie	22,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	5,783			129	5,654		
213	1800 mm Courtoie TSS on Trulls Rd. from Blair St. to Adelaide Ave. extension - Phase 3 - Courtoie	34,325	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	8,822			129		8,693	
214	1800 mm Courtoie TSS on future Adelaide Avenue extension from Trulls Rd. to Townline Rd. - Phase 4 - Courtoie	12,825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	3,296				257	3,039	
215	1800 mm Courtoie TSS on Townline Rd. from Adelaide Ave. extension to Coldstream Dr. - Phase 5 - Oshawa/Courtoie	12,675	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	3,257				257	3,000	
216	1350 mm Courtoie TSS oversizing through future development from Grandview Street to Conlin Rd. - Oshawa/Courtoie	5,775	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,484		199		1,285		
217	675 mm twinning of Farewell Creek TSS on easement west of Grandview St. - Oshawa	2,650	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	681				64	617	
218	750 mm twinning of Oshawa Creek TSS from Gth St. to Greenwood Ave. - Oshawa	1,025	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	263				64	199	
219	1350 mm North Oshawa Creek (West Branch) TSS - Conlin Road SPSs to Britannia Rd. - Oshawa	6,775	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,741					1,548	
220	1050 mm North Oshawa Creek (West Branch) TSS - Britannia Rd. to Winchester Rd. - Oshawa	4,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,157					984	
221	525 mm North Oshawa Creek (West Branch) TSS - Winchester Rd. to Columbus Rd. - Oshawa	6,400	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,645					1,452	
222	1200 mm Conlin Rd. W. TSS, Oshawa/Whitby Boundary to Conlin Road SPSs - Oshawa	5,750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,478					1,478	
223	1050 mm North Oshawa Creek (East Branch) TSS on easements - Britannia Rd. to Winchester Rd. - Oshawa	3,900	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,002					1,002	
224	525 mm Conlin Rd. TSS, Wilson Rd. to Hamory Rd. - Oshawa	725	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	186					186	
225	1200 mm twinning of Port Whitby TSS from 150 m west of Henry St. to Harbour Rd. - Whitby	5,700	0.00%	0.00%	4.91%	0.00%	0.00%	0.00%	24.44%	70.65%	1,383	819	574				
226	1200 mm twinning Harbour St. TSS from 400 m north of Water St. to Breakwater SPSs - Whitby	1,725	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	443					443	
227	900 mm West Whitby TSS on easement from Jeffrey St. SPSs to Hwy 2 - Whitby	15,100	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	3,881					3,881	
228	900 mm West Whitby sub-trunk on Dundas St. from Concession Rd to Halls Rd.	1,975	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23.13%	66.87%	467					467	
229	900 mm Ash Creek TSS from Consumers Dr./Green Rd. to Ash Creek TSS at Pringle Creek WPCP - Whitby	19,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	5,012					5,012	
230	1350 mm Corbett TSS on easement from Wentworth St. to Corbett Creek WPCP - Whitby	2,350	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	604					604	
231	1350 mm Corbett TSS on easement from South Blair Street to Thickson Road - Whitby	5,210	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,339					1,339	
232	1050 mm Brooklin TSS Division on easement from Anderson St. to Thickson Rd. SPSs - Whitby	4,025	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,004					1,004	
233	600 mm West Brooklin TSS west of Ashburn Rd.	10,825	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	2,782					2,782	
234	450 mm West Central Brooklin TSS west of Way St.	1,575	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	405					405	
235	450 mm/600 mm Central Brooklin TSS	4,050	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	1,041					1,041	
236	600 mm Central East Brooklin TSS east of Baldwin St.	875	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	225					225	
237	450 mm East Brooklin TSS east of Thickson Rd.	2,625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	675					675	
Sub-Total		220,960	1.981	0	280	0	0	0	56,206	56,206	1,333	2,315	3,668	5,654	10,682	16,124	
Total Whitby/Oshawa/Clarington(Courtoie)		583,619	4,301	114,948	280	0	0	0	145,632	145,632	1,333	2,315	4,061	7,286	12,531	76,050	
Clarington (Bowmanville)																	
Water Pollution Control Plants (WPCP)																	
300	Expansion of Port Darlington WPCP 27,276 to 42,000 m³/d (from 6 to 9 MGD)	47,000	0.00%	54.64%	0.00%	0.00%	0.00%	0.00%	21.18%	24.18%	9,956					424	
301	Outfall at Port Darlington WPCP	25,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.70%	53.30%	11,675					467	
Sub-Total		72,000	0	25,681	0	0	0	0	21,631	24,688	21,631	0	0	0	0	891	
Pumping Stations (SPSs)																	
302	Northeast SPSs, forcemain and land - Conc. Rd. 3 and Means Ave.	3,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	900					900	
Sub-Total		3,500	0	0	0	0	0	0	900	2,601	900	0	0	0	0	0	

Table G.2 - Regional Sanitary Sewerage: Capital Cost Summary: Non - Residential (Year 2013 - 2027)																
Item #	Description	Gross Cost (2013 Estimated Cost)	Benefit to Existing Development	Post Period Benefit	Grants, Subsidy, & Other	Development Related				Total Net Non-Residential Growth Cost	BY YEAR					
						Seaton	Federal Lands	Non-Resid.	Resid.		2013	2014	2015	2016	2017	2018 - 2022
		\$ 000's	%	%	%	%	%	%	%	\$ 000's						
Uxbridge																
Water Pollution Control Plants (WPCP)																
500	Allowance for optimization upgrades of Uxbridge Brook WPCP	2,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.70%	53.30%	934	934				
	Sub-Total	2,000	0	0	0	0	0	0	934	1,066	934	0	0	0	0	0
	Total Uxbridge	2,000	0	0	0	0	0	0	934	1,066	934	0	0	0	0	0
Brook																
Water Pollution Control Plants (WPCP)																
600	Feasibility Study for Sunderland WPCP & Cannington WPCP	1,800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.70%	53.30%	841					
601	Allowance for upgrades of Sunderland WPCP	2,300	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.70%	53.30%	1,074	1,074				
	Sub-Total	4,100	0	0	0	0	0	0	1,915	2,185	1,915	0	1,074	0	841	0
	Total Brook	4,100	0	0	0	0	0	0	1,915	2,185	1,915	0	1,074	0	841	0
	Total Capital Cost	1,014,164	66,793	202,843	280	25,693	18,696	238,605	461,254	238,605	11,930	9,108	15,038	9,185	15,378	96,553
Other Development Charge Component Works																
700	Plant SCADA System Projects	2,700	63.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17.28%	19.72%	467	138		86	156	
701	Master Planning Studies for Regional Official Plan	1,500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	386	129			129	129
702	Environmental Assessment for Future Municipal Projects	750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	193	13	13	13	13	64
703	Allowance for Regional Road and Municipal Road, M TO & GO-Transit Programs	35,694	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.29%	3.72%	459	38	50	78	94	32
704	Allowance for Unserviced Areas and Construction of Services in response to Requests or Petitions	7,605	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.29%	3.72%	98		1	1	10	32
705	Allowance for Regional Share for works in conjunction with non-residential development	3,800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	977	51	51	51	51	360
706	Maintenance Facilities Capital Allowance	11,200	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	2,878	180	180	180	180	989
707	Allowance for Regional Share for works in conjunction with residential development	25,470	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	6,546	436	436	436	436	2,182
708	Expansion of the Regional Environmental Laboratory	2,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	514	514				
709	Allowance for intensification	20,150	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.70%	74.30%	5,178	345	345	345	345	1,728
	Total Other Development Charge Components Works	110,869	42,835	0	0	0	0	0	17,694	50,339	17,694	1,716	1,205	1,191	1,216	5,514
Other Non Residential Development Charge Component Works																
800	Replacement of Madawaska SPS and boreman	5,275	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0					0
801	Montgomery Tunk Sanitary Sewer from CN Railway to 170 in South of Waterloo St. - Oshawa	1,725	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0					0
802	Twinning North West Harmony Tunk Sanitary Sewer, Nonquon Rd. to Hilcroft St., Oshawa	1,750	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0					
803	Twinning East Branch Harmony Creek Tunk Sanitary Sewer, Hwy 2 to Regent Dr., Oshawa	1,575	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0					
	Total Other Non Residential Development Component Works	10,325	10,325	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total of Region	1,135,357	119,953	202,843	280	25,693	18,696	256,299	511,593	256,299	13,547	10,313	16,228	10,401	16,715	101,867

Table G.3
RESIDENTIAL SEWER
Region-Wide Development Charge (With-out Seaton)
Cash Flow Calculation of the Residential Development Charge
(\$000's)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	DC Reserve Fund Opening Balance	Existing Debt Payments Other	Existing Debt Payments York Durham	Existing Debt Payments Total (1)	Development Related Expenditures	Development Related Expend. Inflated @ 3.5%	Issuing of New Debt	Debt Costs on new Debt 6.0%	Equivalent Single Detached Units	Unit Charge Inflated @ 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0% debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	26,852	7,095	1,817	8,516	22,117	22,117	6,007 (2)	0	3,735	8,365	31,244	33,471	1,004	34,475
2014-15	34,475	7,106	1,816	8,526	22,501	23,288	2,015 (3)	816	3,735	8,658	32,338	36,197	1,086	37,283
2015-16	37,283	7,112	1,814	8,531	29,891	32,020	11,791 (4)	1,090	3,735	8,961	33,470	40,904	1,227	42,131
2016-17	42,131	7,115	1,813	8,533	26,799	29,712	2,158 (5)	2,692	3,735	9,275	34,641	37,993	1,140	39,133
2017-18	39,133	6,764	1,812	8,181	45,594	52,320	0	2,985	3,735	9,599	35,854	11,501	345	11,846
2018-19	11,846	6,760	0	6,760	36,386	43,216	0	2,985	4,454	9,935	44,252	3,137	94	3,231
2019-20	3,231	6,751	0	6,751	36,386	44,728	0	2,985	4,454	10,283	45,801	(5,432)	(326)	(5,758)
2020-21	(5,758)	6,739	0	6,739	36,386	46,294	46,294 (6)	2,985	4,454	10,643	47,404	31,921	958	32,879
2021-22	32,879	3,319	0	3,319	36,386	47,914	0	9,275	4,454	11,016	49,063	21,433	643	22,076
2022-23	22,076	3,050	0	3,050	36,386	49,591	0	9,275	4,454	11,401	50,780	10,941	328	11,269
2023-24	11,269	3,050	0	3,050	36,552	51,560	0	9,275	5,262	11,800	62,092	9,476	284	9,760
2024-25	9,760	3,050	0	3,050	36,552	53,365	0	8,459	5,262	12,213	64,265	9,152	275	9,427
2025-26	9,427	3,050	0	3,050	36,552	55,233	0	8,185	5,262	12,641	66,515	9,474	284	9,758
2026-27	9,758	3,050	0	3,050	36,552	57,166	0	6,583	5,262	13,083	68,843	11,802	354	12,156
2027-28	12,156	330	0	330	36,552	59,166	0	23,912	5,262	13,541	71,252	0	0	0
Total		74,341	9,072	81,436	511,593	667,689	68,265	91,503	67,255		737,814		7,696	

	Single/Semi Detached	Medium Density Multiple	2 Bedroom Apartment	1 Bedroom Apartment
DC/Unit	\$8,365	\$6,721	\$4,859	\$3,167

Notes

- (1) The York Durham share of debt payments have been reduced by 21.80% which represents the share being apportioned to the Seaton Development Charge
- (2) Debt issued for the expansion and improvements at Nonquon River WPCP
- (3) Debt issued for Duffin Creek WPCP Stage 1 & 2 Upgrades
- (4) Debt issued for Newcastle WPCP expansion and Duffin Creek WPCP Stage 1 & 2 Upgrades
- (5) Debt issued for Duffin Creek WPCP Stage 1 & 2 Upgrades
- (6) Debt issued for expansion of Courtice WPCP

Table G.4
COMMERCIAL SEWER
Development Charge (With-out Seaton)
Cash Flow Calculation of the Commercial Development Charge
(\$000's)

Year	1	2	3	4	6	7	5	6	7	8	9	10
DC Reserve Fund Opening Balance	Existing Debt Payments Total	Development Related Exp Total	Development Related Exp Commercial ¹	Development Related Exp Inflated @ 3.5%	Issuing of New Debt	Debt Costs on new Debt 6.5%	Estimated Development m ² Commercial	Charge m ² inflated 3.5%	Anticipated Revenue	Surplus (Deficit)	Int Earnings 3.0%debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	2,749	1,412	13,547	3,048	1,228 (2)	0	95,365	56.16	5,356	4,873	146	5,019
2014-15	5,019	1,414	10,313	2,320	397 (3)	167	95,365	58.13	5,544	6,977	209	7,186
2015-16	7,186	1,415	16,228	3,651	2,325 (4)	221	95,365	60.16	5,738	9,701	291	9,992
2016-17	9,992	1,415	10,401	2,340	425 (5)	537	95,365	62.27	5,938	11,810	354	12,164
2017-18	12,164	1,347	16,715	3,761	0	594	95,365	64.45	6,146	12,053	362	12,415
2018-19	12,415	1,346	17,446	3,925	0	594	90,337	66.71	6,026	11,838	355	12,193
2019-20	12,193	1,345	17,446	3,925	0	594	90,337	69.04	6,237	11,666	350	12,016
2020-21	12,016	1,343	17,446	3,925	4,994 (6)	594	90,337	71.46	6,455	16,534	496	17,030
2021-22	17,030	662	17,446	3,925	0	1,273	90,337	73.96	6,681	16,607	498	17,105
2022-23	17,105	610	17,446	3,925	0	1,273	90,337	76.55	6,915	16,788	504	17,291
2023-24	17,291	610	20,373	4,584	0	1,273	59,197	79.22	4,690	13,632	409	14,041
2024-25	14,041	482	20,373	4,584	0	1,106	59,197	82.00	4,854	10,615	318	10,933
2025-26	10,933	482	20,373	4,584	0	1,052	59,197	84.87	5,024	7,497	225	7,721
2026-27	7,721	482	20,373	4,584	0	736	59,197	87.84	5,200	4,534	136	4,670
2027-28	4,670	52	20,373	4,584	0	2,580	59,197	90.91	5,382	(0)	(0)	(0)
Total	14,417	256,299	57,667	75,946	9,369	12,595	1,224,495		86,185		4,654	

	Commercial
Development Charge/m ²	\$56.16
Development Charge/sq ft	\$5.22
Proposed Rate/sq ft	\$5.22

Notes

- (1) The Commercial expenditures are approximately 22.5% of total expenditures based on the commercial share of the total non-residential expenditures outlined on page G-4 in Appendix G
- (2) Debt issued for Nonquon WPCP Expansion and Improvements
- (3) Debt issued for Duffin Creek WPCP Stage 1 & 2 Upgrades
- (4) Debt issued for Newcastle WPCP expansion and Duffin Creek WPCP Stage 1 & 2 Upgrades
- (5) Debt issued for Duffin Creek WPCP Stage 1 & 2 Upgrades
- (6) Debt issued for expansion of Courtice WPCP

Table G.5
INDUSTRIAL SEWER
Development Charge (With-out Seaton)
Cash Flow Calculation of the Industrial Development Charge
(\$000's)

Year	1	2	3	4	5	6	7	8	9	10
DC Reserve Fund Opening Balance	DC Reserve Fund Opening Balance	Development Related Exp Total	Development Related Exp Industrial (1)	Development Related Exp Inflated @ 3.5%	Estimated Development m ² Industrial	Charge m ² inflated 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%/debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	1,188	13,547	10,099	10,099	323,060	49.90	16,121	7,210	216	7,427
2014-15	7,427	10,313	7,688	7,957	323,060	51.65	16,585	16,154	485	16,639
2015-16	16,639	16,228	12,098	12,960	323,060	53.45	17,269	20,948	628	21,577
2016-17	21,577	10,401	7,754	8,597	323,060	55.33	17,873	30,854	926	31,779
2017-18	31,779	16,715	12,460	14,299	323,060	57.26	18,499	35,979	1,079	37,059
2018-19	37,059	17,446	13,005	15,446	296,925	59.27	17,597	39,210	1,176	40,386
2019-20	40,386	17,446	13,005	15,987	296,925	61.34	18,213	42,613	1,278	43,891
2020-21	43,891	17,446	13,005	16,546	296,925	63.49	18,851	46,196	1,386	47,582
2021-22	47,582	17,446	13,005	17,125	296,925	65.71	19,511	49,967	1,499	51,466
2022-23	51,466	17,446	13,005	17,725	296,925	68.01	20,193	53,934	1,618	55,552
2023-24	55,552	20,373	15,188	21,424	148,048	70.39	10,421	44,549	1,336	45,886
2024-25	45,886	20,373	15,188	22,174	148,048	72.85	10,786	34,498	1,035	35,532
2025-26	35,532	20,373	15,188	22,950	148,048	75.40	11,163	23,746	712	24,458
2026-27	24,458	20,373	15,188	23,753	148,048	78.04	11,554	12,259	368	12,626
2027-28	12,626	20,373	15,188	24,585	148,048	80.77	11,958	(0)	(0)	(0)
Total		256,299	191,065	251,626	3,840,165	80.77	236,694		13,744	

	Industrial
Development Charge/m ²	\$49.90
Development Charge/sq ft	\$4.64
Proposed Rate/sq ft	\$4.64

Notes

(1) The Industrial expenditures are approximately 74.6% of total expenditures based on the industrial share of the total non-residential expenditures outlined on page G-4 in Appendix G

Table G.6
INSTITUTIONAL SEWER
Development Charge (With-out Seaton)
Cash Flow Calculation of the Institutional Development Charge
(\$000's)

Year	1 DC Reserve Fund Opening Balance	2 Development Related Exp Total	3 Development Related Exp Institutional ⁽¹⁾	4 Development Related Expend. Inflated @ 3.5%	5 Estimated Development m ² Institutional	6 Charge m ² inflated 3.5%	7 Anticipated Revenue	8 Surplus (Deficit)	9 Int. Earnings 3.0%/debt rate 6.00%	10 DC Reserve Fund Closing Bal.
2013-14	43	13,547	400	400	37,750	15.66	591	235	7	242
2014-15	242	10,313	304	315	37,750	16.21	612	538	16	555
2015-16	555	16,228	479	513	37,750	16.77	633	674	20	695
2016-17	695	10,401	307	340	37,750	17.36	655	1,010	30	1,040
2017-18	1,040	16,715	494	566	37,750	17.97	678	1,152	35	1,186
2018-19	1,186	17,446	515	612	32,761	18.60	609	1,184	36	1,220
2019-20	1,220	17,446	515	633	32,761	19.25	631	1,217	37	1,253
2020-21	1,253	17,446	515	655	32,761	19.92	653	1,251	38	1,288
2021-22	1,288	17,446	515	678	32,761	20.62	676	1,286	39	1,324
2022-23	1,324	17,446	515	702	32,761	21.34	699	1,321	40	1,361
2023-24	1,361	20,373	602	849	26,211	22.09	579	1,091	33	1,124
2024-25	1,124	20,373	602	878	26,211	22.86	599	845	25	870
2025-26	870	20,373	602	909	26,211	23.66	620	582	17	599
2026-27	599	20,373	602	941	26,211	24.49	642	300	9	309
2027-28	309	20,373	602	974	26,211	25.35	664	0	0	0
Total		256,299	7,567	9,966	483,610		9,542		381	

	Institutional
Development Charge/m ²	\$15.66
Development Charge/sq ft	\$1.45
Proposed Rate/sq ft	\$1.45

Notes

(1) The Institutional expenditures are approximately 2.9% of total expenditures based on the institutional share of the total non-residential expenditures outlined on page G-4 in Appendix G

APPENDIX H

OTHER SERVICES SERVICE LEVELS, CAPITAL COSTS AND DC CALCULATIONS

APPENDIX H – OTHER SERVICES

1.0 POLICE

The capital program for Durham Regional Police includes a number of projects to provide services for growth in the Region. A number of these facilities involve the replacement of existing buildings with larger facilities. In these cases, only the cost of the expansion component has been included as follows:

- The Centre for Investigative Excellence in 2014 – this facility is estimated at \$39.7 million, where 72% of the facility is growth related as a portion of the building is replacing an existing facility.
- The Clarington Police Complex Warehouse in 2014 - facility is estimated to cost \$33.7 million and 61% is growth related as a portion of the building is replacing an existing facility.
- Regional Operations Training Centre (Phase 2) in 2017 - This facility is estimated to cost \$24.8 million, however 66% of this facility is related to growth as a portion of the building is replacing an existing facility.
- Construction of a new facility in the Seaton Community. Development in the Seaton Community is expected to commence in 2015. This facility is forecasted in the 2018-2022 time period at an estimated cost of \$8.9 million (100% growth related).
- Expansion of the North Division Facility - facility expansion, estimated to cost \$3.3 million, is anticipated for the 2018-2022 forecast period (100% growth related).

No deduction for benefit to existing has been made for the expanded facilities as the eligible increase in need will accommodate new development at the same level of service as existing development. Similarly, no deduction has been made for the new facility in the new Seaton community as this project is required to meet the needs of this new development area.

The capital program also includes the recovery of outstanding DC recoverable share of the Clarington Police Complex (Phase 1) East Division and Forensic Investigation Facilities which is anticipated for construction in 2013 and identified in the 2008 Regional DC Background Study. This expenditure is shown in the cash flow calculation which follows. As this cost includes only the DC recoverable share, no deduction for benefit to existing development is required.

The Region intends to maintain the level of service regarding number of officers per capita. This will require expenditures for police vehicles. It has been assumed that 80 additional patrol vehicles will be added to the existing fleet, 40 vehicles for each five year period, 2013-2017 and 2018-2022. As well, 1 additional collision reconstruction cube van (2015) and 1 additional mobile command unit (2018) is expected to be added to the vehicle fleet.

Police vehicles have been included in this calculation based on the fact that these vehicles are designed to have a useful life of more than seven years; however, because they operate continuously, this life is compressed into a lesser period of time. No benefit to existing deductions are applied to new vehicles as additions to fleet are to maintain existing service levels. The eligible recovery amount as estimated from the historical level of service is applied fully to the vehicles in the first 5 year period with the residual applied to facilities (no eligible recovery amount is applied to growth capital in the latter 5 years of the forecast).

The allocation of costs attributable to new development between residential and non-residential growth has been made based on the share of total growth (143,595 population and 84,380 employment) that each sector represents. On this basis, the residential share is 63%.

Service Level Calculation Sheet

Service: Police (Vehicles)
Unit Measure: \$ Value of Vehicles and Other Assets

Quantity Measure	Description	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 \$ Value per Item
Estimate of Number of Vehicles ⁽¹⁾		313	313	319	327	337	337	342	341	370	376	45,000
Mobile Command	1	1	1	1	1	1	1	1	1	1	1	160,000
Collision Reconstruction vehicle												99,000
Forensic Identification Scene truck												256,500
Public Order Scene truck												213,000
Hike vessel	1	1	1	1	1	1	1	1	1	1	1	380,000
Zodiac Boat												172,000
Police Helicopter	1	1	1	1	1	1	1	1	1	1	1	2,000,000
Land (acres)	36	36	36	38	38	38	38	38	38	64	65	450,000
Radio Infrastructure		\$ 7,800,000	\$ 7,800,000	\$ 7,800,000	\$ 7,800,000	\$ 7,800,000	\$ 7,800,000	\$ 7,800,000	\$ 7,800,000	\$ 7,800,000	\$ 7,800,000	
Total		\$ 40,616,573	\$ 40,687,730	\$ 41,777,916	\$ 42,189,548	\$ 42,639,548	\$ 42,602,337	\$ 43,083,837	\$ 43,057,713	\$ 56,257,668	\$ 57,215,379	

Population	547,660
Per Capita Service Level	\$ 74.17
10 Year Average	2003-2012
Combined Quantity/Quality Level (\$ per capita)	\$ 74.91

DC Amount (before deductions)	
2013-2023 Forecast Population Growth	143,595
\$ per Capita	\$ 74.91
Eligible Amount	\$ 10,756,701

Notes:

⁽¹⁾ Vehicles include police cruisers, SUVs, boats etc.; value includes equipment such as radio, lights and roof bar, excludes computer

INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION
MUNICIPALITY: Region of Durham

SERVICE: Police (Vehicles)

Pri. No.	Increased Service Needs Attributable to Anticipated Development 2013-2022	Timing	Gross Capital Cost Est. (\$2013)	Ineligible re: Level of Service	Eligible Increase in Need	Benefit to Existing Development/ U.E.C. (1)	Less: Grants, Subsidies Other Contribution Attrib. to New Development	Sub Total	Less: Other (e.g. 10% Statutory Deduction)	Net Costs Benefiting New Development	Potential DC Recoverable Cost	Residential Share 63%	Non-Residential Share 37%
	Cost to be Incurred During Term of Proposed By-law (2013-2017)												
1	40 additional patrol vehicles	2013-2017	1,800,000	-	1,800,000	-	-	1,800,000	-	1,800,000	1,134,000		666,000
2	1 Additional Collision Reconstruction Cube Van	2015	125,000	-	125,000	-	-	125,000	-	125,000	78,750		46,250
	Cost to be Incurred Post By-law Term (2018-2022)												
3	40 additional patrol vehicles	2018-2022	1,800,000	1,800,000	-	-	-	-	-	-	-		-
4	1 Additional Mobile Command Unit	2018	375,000	375,000	-	-	-	-	-	-	-		-
	Total Estimated Capital Cost		\$ 4,100,000	\$ 2,175,000	\$ 1,925,000	\$ -	\$ -	\$ 1,925,000	\$ -	\$ 1,925,000	\$ 1,212,750	\$	712,250

Notes:

(1) Uncommitted excess capacity, where applicable

Service Level Calculation Sheet

Service: Police (Facilities)
Unit Measure: Sq.Ft. of Building Space

Quantity Measure	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 Value (\$/sq ft.)
Central East Division - 77 Centre St. North, Oshawa	119,430	119,430	119,430	119,430	119,430	119,430	119,430	119,430	119,430	119,430	475
South Oshawa CPO - 1173 Cedar St., Oshawa	2,270	2,270	2,270	2,270	2,270	2,270	2,270	2,270	2,270	2,270	475
Central West Division - 480 Taunton Rd. East, Whitby	-	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	475
East Division - 1998 Regional Rd 57, Bowmanville	6,546	6,546	6,546	6,546	6,546	6,546	6,546	6,546	6,546	6,546	475
Property Bureau - 19 Courtice Court, Courtice	23,506	23,506	23,506	23,506	23,506	23,506	23,506	23,506	23,506	23,506	475
West Division - 1710 Kingston Rd, Pickering	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	27,000	475
Ajax CPC - 990 Westney Rd South, Ajax	463	463	463	463	463	463	463	463	463	463	475
North Ajax CPC - McLean Centre, 95 Magill Drive, Ajax	873	873	873	873	873	873	873	873	873	873	475
Sunderland CPC - 135 Albert St., Sunderland	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	475
Uxbridge CPC - 34 Brock St. West, Uxbridge	1,734	1,734	1,734	1,734	1,734	806	806	806	806	806	475
North Division - 15765 Hwy #12 Port Perry (excl garage)	11,245	11,245	11,245	11,245	11,245	11,245	11,245	11,245	11,245	11,245	475
Lawful Access				9,377	9,377	9,377	9,377	9,377	10,488	10,488	475
Ajax Rod and Gun Club		3,444	3,444	3,444	3,444	3,444	3,444	3,444	3,444	3,444	475
Operations Training Centre - 4060 Anderson St., Whitby										47,092	475
Oshawa Airport Hanger - 1190 Keith Ross Court, Oshawa	875	875	875	875	875	875	875	875	875	875	246
PLC - 2000 Simcoe St. N. Oshawa (Durham College)	14,290	14,290	14,290	14,290	14,290	14,290	14,290	14,290	14,290	13,720	186
Regional Reporting Centre - 650 Rossland Rd. East, Whitby	14,842	14,842	14,842	14,842	14,842	14,842	14,842	14,842	14,842	14,842	186
Kids Safety Village, 1129 Alhol St., Whitby	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	186
Beaverton CPC- 454 John St., Beaverton	1,729	1,729	1,729	1,729	1,729	1,729	1,729	1,729	1,729	1,729	186
Beaverton CPC - 412 Bay Street, Beaverton								1,800	1,800	1,800	186
Administrative Services - 1600 Champlain Ave., Whitby	21,512	21,512	21,512	-	-	-	-	-	-	-	186
Regional HQ Building - 605 Rossland Rd. East, Whitby			37,697	37,697	37,697	37,697	37,697	37,697	37,697	37,697	186
Courtice CPC - 2611 Trulls Road, Courtice			2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	186
Case Management Unit - 3000 Garden St., Whitby			2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	186
Domestic Violence Unit - 701 Rossland Rd. East Whitby				1,078	1,078	1,078	1,078	1,078	1,078	1,078	186
Durham Courthouse - 150 Bond St. East, Oshawa								13,288	13,288	13,288	186
Total	249,537	289,981	329,678	321,421	321,421	317,357	317,357	326,838	327,949	374,471	

Population	547,660	560,190	573,050	584,360	599,955	611,390	621,865	626,110	633,130	639,655
Per Capita Service Level	0.456	0.518	0.576	0.551	0.536	0.520	0.511	0.523	0.518	0.586

10 Year Average	2003-2012
Quantity per capita	0.530
Quality (\$/sq.ft.)	\$ 405.58
Combined Quantity/Quality Level (\$/capita)	\$ 214.96

DC Amount (before deductions)	2003-2012
2013-2023 Forecast Population Growth	143,595
\$ per Capita	\$ 214.96
Eligible Amount	\$ 30,867,036

INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION
MUNICIPALITY: Region of Durham

SERVICE: Police (Facilities)

Pj. No.	Increased Service Needs Attributable to Anticipated Development 2013-2022	Timing	Gross Capital Cost Est. (\$2013)	Ineligible re: Level of Service	Eligible Increase in Need	Benefit to Existing Development/ U.E. C. (1)	Less: Grants, Subsidies & Other Contributions Attrib. to New Development	Sub Total	Less: Other (e.g. 10% Statutory Deduction)	Net Costs Benefiting New Development	Potential DC Recoverable Cost	Residential Share 63%	Non-Residential Share 37%
	Cost to be Incurred During Term of Proposed By-law (2013-2017)												
	Clarrington Police Complex - Phase 2 (Warehouse) ⁽²⁾	2013	1,552,450	1,040,290	512,160	-	-	512,160	-	512,160		322,661	189,499
		2014	19,004,550	12,734,870	6,269,680	-	-	6,269,680	-	6,269,680		3,949,898	2,319,781
	Clarrington Police Complex - Phase 2 (Centre for Investigative Excellence) ⁽³⁾	2013	2,134,800	1,430,521	704,279	-	-	704,279	-	704,279		443,696	260,583
		2014	26,449,200	17,723,499	8,725,701	-	-	8,725,701	-	8,725,701		5,497,191	3,228,509
	Operations Training Centre - Phase 2 ⁽⁴⁾	2016	990,000	663,395	326,605	-	-	326,605	-	326,605		205,761	120,844
		2017	15,378,000	10,304,734	5,073,266	-	-	5,073,266	-	5,073,266		3,196,157	1,877,108
	Cost to be Incurred Post By-law Term (2018-2022)												
	Durham North West Seaton	2018	8,925,000	8,925,000	-	-	-	-	-	-		-	-
	North Division Expansion	2020	3,261,000	3,261,000	-	-	-	-	-	-		-	-
	Total Estimated Capital Cost		\$ 77,995,000	\$ 56,083,310	\$ 21,611,690	\$ -	\$ -	\$ 21,611,690	\$ -	\$ 21,611,690	\$ 13,615,365	\$ 7,996,325	

Notes:

- (1) Uncommitted excess capacity, where applicable
(2) The cost of the Clarrington Police Complex (Phase 2) Warehouse facility is estimated at \$33.7 million, \$20.6 million (61%) of which is growth related as a portion of the building is replacing an existing facility.
(3) The cost of the Clarrington Police Complex Centre (Phase 2) for Investigative Excellence facility is estimated at \$39.7 million, \$28.6 million (72%) of which is growth related as a portion of the building is replacing an existing facility.
(4) The cost of the Operations Training Centre facility (Phase 2) is estimated at \$24.8 million, \$16.4 million (66%) of which is growth related as a portion of the building is replacing an existing facility.

POLICE SERVICES
Region-Wide Development Charge
Cash Flow Calculation of the Residential Development Charge
(\$'000's)

Year	DC Reserve Fund Opening Balance	Existing Debt Payments ⁽¹⁾	Development Related Expenditures	Development Related Expend. Inflated @ 3.5%	Issuing of New Debt	Debt Costs on new Debt 6.0%	Eqv. Single Detached Units	Unit Charge Inflated @ 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%debt rate 6.0%	DC Reserve Fund Closing Bal.
2013-14	0	1,809	993	993	0	0	3,795	603	2,290	(512)	(31)	(543)
2014-15	(543)	1,809	9,674	10,012	9,778	0	4,605	624	2,875	289	9	297
2015-16	297	1,809	306	327	0	1,328	5,420	646	3,502	335	10	345
2016-17	345	1,809	433	480	0	1,328	5,420	669	3,625	354	11	364
2017-18	364	1,809	3,423	3,928	3,668	1,328	5,420	692	3,752	719	22	740
2018-19	740	1,809	0	0	0	1,827	5,650	716	4,048	1,153	35	1,187
2019-20	1,187	1,809	0	0	0	1,827	5,650	742	4,190	1,742	52	1,794
2020-21	1,794	1,809	0	0	0	1,827	5,650	767	4,336	2,495	75	2,570
2021-22	2,570	1,809	0	0	0	1,827	5,650	794	4,488	3,422	103	3,525
2022-23	3,525	1,809	0	0	0	6,362 ⁽⁴⁾	5,650	822	4,645	(0)	(0)	(0)
TOTAL		18,087	14,828	15,740	13,445	17,654	52,910		37,752		285	

	Single/Semi Detached	Medium Density Multiple	2 Bedroom Apartment	1 Bedroom Apartment
DC/Unit	\$603	\$485	\$350	\$228

Notes

- (1) Debt issued for the Clarington Police Complex (Phase 1) East Division and Forensic Investigation Facilities
(2) Debt issued for the Clarington Police Complex (Phase 2) Centre for Investigative Excellence and Warehouse facilities
(3) Debt issued for the Operations Training Centre (Phase 2)
(4) Final year of new debt costs represents debt servicing costs from 2022 to 2027.

2.0 EMERGENCY MEDICAL SERVICES (LAND AMBULANCE)

The Region's five year capital forecast includes the provision of an additional ambulance station in Sunderland in 2014 to service Northern Durham Region at a cost of \$3.8 million. It is anticipated that an additional station to service the Seaton Community will be required during the 2018 to 2022 period. Further replacement and expansion of the existing facility in Bowmanville will service the eastern portions of Clarington. The cost of each station is estimated at \$3.8 million with additional provision of \$400,000 for land for the Bowmanville facility.

Ambulances have also been included in this calculation, based on the fact that these vehicles are designed to have a useful life of more than seven years. However, because they operate continuously, this life is compressed to a lesser period of time.

The Region's five year capital forecast includes the purchase of 8 additional ambulances and 3 emergency response vehicles for the 2013 to 2017 period to maintain compliance with the legislated performance standards. It is expected that 6 additional ambulances and 1 logistics truck will be required during the 2018-2022 period.

The current level of service in the Region is within Ministry of Health guidelines for average response times. However, as the municipality grows, additional stations are required to maintain mandated response times. It is recognized that there is a minor benefit to existing development as a result of more stations and this benefit has been recognized with a 5% deduction. The eligible recovery amount as estimated from the historical level of service is applied fully to the facilities and vehicles in the first 5 year period with the residual applied in the latter 5 years of the forecast. No benefit to existing deductions are applied to new vehicles as additions to fleet are to maintain existing service levels.

The allocation of costs attributable to growth has been made based on the ratio of forecast increased population to employment with population weighted at three times in order to reflect the disproportional use of this service by residents in comparison to employees. This reflects the fact that employees are in the Region 1,500-2,000 hours/year in comparison with residents who are generally in the Region in excess of 5,000 hours/year and who generate a large number of seniors requirements. Therefore the calculation for the residential share is:

$$\frac{143,595 \text{ additional persons} \times 3}{(143,595 \times 3) + 84,380 \text{ employees}}$$

This produces a residential share of 84% and a non-residential share of 16%.

Service Level Calculation Sheet

Service: Emergency Medical Services Vehicles
Unit Measure: Total Value of Vehicles and Other Assets

Quantity Measure

Description	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 \$ Value per Item
Number of Vehicles											
Ambulance with defibrillator	22	22	22	22	24	24	25	25	27	27	204,000
Ambulances Spare (no defibrillators)	8	8	8	8	10	11	11	11	12	12	160,000
Emergency Response Vehicle with defibrillator	4	4	4	4	5	5	5	6	6	6	118,000
Emergency Response Vehicle Spare (no defib.)	-	-	-	1	1	1	1	1	2	2	85,000
EMS Command and Response Vehicles with defibrillator	2	2	2	2	2	2	3	3	3	3	118,000
EMS Command and Response Vehicles Spare (no defib)	-	-	-	-	-	-	-	-	1	1	85,000
Management Support Vehicles with Emergency Warning Systems	1	1	2	3	3	3	3	3	4	4	45,000
Emergency Support Van	1	1	1	1	1	1	1	1	1	1	100,000
Emergency Support Trailer	-	-	1	1	2	2	2	2	2	2	45,000
Logistics Truck	1	1	2	2	3	2	2	2	2	2	100,000
All Terrain Gator	-	-	1	1	1	1	1	1	1	1	18,000
Land (acres)	5	9	9	11	11	11	12	12	11	12	450,000
Total Value of Vehicles and Other Assets	\$ 9,100,447	\$ 10,951,072	\$ 11,006,922	\$ 12,302,685	\$ 12,888,885	\$ 12,948,885	\$ 13,743,385	\$ 13,739,597	\$ 14,216,597	\$ 14,666,597	

Population	547,660	560,190	573,050	584,360	599,955	611,390	621,865	626,110	633,130	639,655
Service Level per Capital/Employment	\$ 16.62	\$ 19.55	\$ 19.21	\$ 21.06	\$ 21.49	\$ 21.18	\$ 22.11	\$ 21.95	\$ 22.46	\$ 22.93

10 Year Average	2003-2012
Combined Quantity/Quality Level (\$/capita)	\$ 20.86

DC Amount (before deductions)	
2013-2023 Forecast Population Growth	143,595
\$ per Capita	\$ 20.86
Eligible Amount	\$ 2,995,392

INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION
MUNICIPALITY: Region of Durham

SERVICE: Emergency Medical Services - Vehicles

Pri. No.	Increased Service Needs Attributable to Anticipated Development 2013-2022	Timing	Gross Capital Cost Est. (\$2013)	Ineligible re: Level of Service	Eligible Increase in Need	Benefit to Existing Development/ U.E.C. (1)	Less: Grants, Subsidies & Other Contributions Attrib. to New Development	Sub Total	Less: Other (e.g. 10% Statutory Deduction)	Net Costs Benefiting New Development	Potential DC Recoverable Cost Residential Share 84%	Non-Residential Share 16%
	Cost to be Incurred During Term of Proposed By-law (2013-2017)											
1	1 Additional Ambulance with Defibrillator	2013	204,000	-	204,000	-	-	204,000	20,400	183,600	154,224	29,376
2	1 Additional Emergency Response Vehicle with Defibrillator	2013	129,000	-	129,000	-	-	129,000	12,900	116,100	97,524	18,576
3	1 Additional Ambulance with Defibrillator	2014	204,000	-	204,000	-	-	204,000	20,400	183,600	154,224	29,376
4	2 Additional Ambulances with Defibrillator	2015	408,000	-	408,000	-	-	408,000	40,800	367,200	308,448	58,752
5	1 Additional Emergency Response Vehicle with Defibrillator	2015	129,000	-	129,000	-	-	129,000	12,900	116,100	97,524	18,576
6	2 Additional Ambulances with Defibrillator	2017	408,000	-	408,000	-	-	408,000	40,800	367,200	308,448	58,752
7	1 Additional Ambulance to enhance spare fleet	2013	160,000	-	160,000	-	-	160,000	16,000	144,000	120,960	23,040
8	1 Additional Ambulance to enhance spare fleet	2015	160,000	-	160,000	-	-	160,000	16,000	144,000	120,960	23,040
9	1 Additional Emergency Response Vehicle to enhance spare fleet	2014	85,000	-	85,000	-	-	85,000	8,500	76,500	64,260	12,240
	Cost to be Incurred Post By-law Term (i.e. 2018-2022)											
10	2 Additional Ambulances with Defibrillator	2019	408,000	332,805	75,195	-	-	75,195	7,519	67,675	56,847	10,828
11	1 Additional Ambulance to enhance spare fleet	2018	160,000	130,512	29,488	-	-	29,488	2,948	26,539	22,293	4,246
12	1 Additional Logistics Truck	2018	120,000	97,884	22,116	-	-	22,116	2,212	19,905	16,720	3,185
13	2 Additional Ambulances with Defibrillator	2021	408,000	332,805	75,195	-	-	75,195	7,519	67,675	56,847	10,828
14	1 Additional Ambulance to enhance spare fleet	2021	160,000	130,512	29,488	-	-	29,488	2,948	26,539	22,293	4,246
	Total Estimated Capital Cost		\$ 3,143,000	\$ 1,024,518	\$ 2,118,482	\$ -	\$ -	\$ 2,118,482	\$ 211,848	\$ 1,906,634	\$ 1,601,572	\$ 305,061

Notes:

(1) Uncommitted excess capacity, where applicable

Service Level Calculation Sheet

Service: Ambulance Stations
Unit Measure: Sq. Ft. of Building Space

Quantity Measure	Description	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 Value (\$/s.f.)
Total Floor Area												
Whitby Paramedic Station		-	19,945	19,945	19,945	19,945	19,945	19,945	19,945	19,945	19,945	425
Whitby Hydro Leased Space		2,600	2,600	-	-	-	-	-	-	-	-	425
North Oshawa Paramedic Station (Ritson)		4,746	4,746	4,746	4,746	4,746	4,746	4,746	4,746	4,746	4,746	425
South Oshawa Paramedic Station (Bloor)					4,608	4,608	4,608	4,608	4,608	4,608	4,608	425
South Oshawa Paramedic Station (500 Wentworth)		2,700	2,700	2,700	2,700	-	-	-	-	-	-	425
Ajax Paramedic Station		6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	6,060	425
Pickering Paramedic Station (625 Kingston Rd)		2,692	2,692	2,692	2,692	2,692	2,692	2,692	-	-	-	425
Pickering Paramedic Station (New)								6,200	6,200	6,200	6,200	425
Courtice Paramedic Station								6,200	6,200	6,200	6,200	425
Uxbridge Paramedic Station		2,630	2,630	2,630	2,630	2,630	2,630	2,630	2,630	2,630	2,630	425
Bowmanville Paramedic Station		2,602	2,602	2,602	2,602	2,602	2,602	2,602	2,602	2,602	2,602	425
Port Perry Paramedic Station		3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	425
Beaverton Paramedic Station		3,528	3,528	3,528	3,528	3,528	3,528	3,528	3,528	3,528	3,528	425
4050 Anderson EMS Storage Facility		-	-	-	-	-	-	-	9,100	9,100	9,100	425
Sunderland Satellite Facility		-	-	-	-	-	-	-	1,100	1,100	1,100	305
Conlin Depot Maintenance		1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	305
Banting Avenue Storage Facility		-	-	-	8,000	8,000	8,000	8,000	8,000	-	-	60
79 Wilkinson Ave, Oshawa		1,000	1,000	500	500	-	-	-	-	-	-	60
Total		33,158	53,103	50,003	62,611	59,411	59,411	71,811	79,319	71,319	71,319	

Population	547,660	560,190	573,050	584,360	599,955	611,390	621,865	626,110	633,130	639,655
Per Capita Service Level	0.061	0.095	0.088	0.108	0.100	0.098	0.116	0.127	0.113	0.112

10 Year Average	2003-2012
Quantity per capita	0.102
Quality (\$/sq.ft.)	\$ 421.47
Combined Quantity/Quality Level (\$/capita)	\$ 42.99

DC Amount (before deductions)	
2013-2023 Forecast Population Growth	143,595
\$ per Capita	\$ 42.99
Eligible Amount	\$ 6,173,090

EMERGENCY MEDICAL SERVICES (LAND AMBULANCE)
Region-Wide Development Charge
Cash Flow Calculation of the Residential Development Charge
(\$000's)

Year	DC Reserve Fund Opening Balance	Development Related Expenditures	Development Related Expend. Inflated @ 3.5%	Issuing of New Debt	Debt Costs on new Debt 6.0%	Equivalent Single Detached Units	Unit Charge Inflated @ 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	0	660	660	0	0	3,795	138	526	(134)	(8)	(143)
2014-15	(143)	2,948	3,051	2,825 ⁽¹⁾	0	4,605	143	660	291	9	300
2015-16	300	527	564	0	384	5,420	148	804	156	5	160
2016-17	160	0	0	0	384	5,420	154	832	609	18	627
2017-18	627	308	354	0	384	5,420	159	861	750	23	773
2018-19	773	39	46	0	384	5,650	164	929	1,272	38	1,310
2019-20	1,310	2,104	2,586	2,516 ⁽²⁾	384	5,650	170	962	1,818	55	1,872
2020-21	1,872	0	0	0	726	5,650	176	995	2,142	64	2,206
2021-22	2,206	79	104	0	726 ⁽³⁾	5,650	182	1,030	2,407	72	2,479
2022-23	2,479	0	0	0	3,545	5,650	189	1,066	0	0	0
TOTAL		6,665	7,366	5,341	6,915	52,910		8,665		275	

	Single/Semi Detached	Medium Density Multiple	2 Bedroom Apartment	1 Bedroom Apartment
DC/Unit	\$138	\$111	\$80	\$52

- (1) Debt issued for the Sunderland Ambulance Station
(2) Debt issued for the Seaton Community Ambulance Station
(3) Final year of new debt costs represents debt servicing costs from 2022 to 2029.

3.0 LONG TERM CARE

The Region completed the reconstruction of the South Building of Hillsdale Terraces in the City of Oshawa in 2005. This 200 bed home included 65 new beds with the balance being replacement.

In the 2003 Development Charge Study, it was estimated that the residential growth related share of the 200 Bed Hillsdale Terraces long term care facility was \$3.9 million (net of 50% benefit to existing and provincial subsidies). The Region had a \$1.3 million balance in the Long Term Care Development Charge Reserve Fund which was used to offset the costs, therefore the debenture requirements were \$2.6 million which was included in the calculation of the 2003 development charge for Long Term Care.

The Region issued \$2.6 million in debt to pay for the growth related component of this facility in 2004. There is \$1.8 million in outstanding debt as of 2012. The principal amount of \$1.8 million plus interest charges are to be repaid through development charges.

The remaining debt principal and interest payments related to the outstanding debt are the only costs included in the development charge quantum for Long Term Care. There are no other new facilities or expansions in the 10 year forecast.

Service: Long Term Care Facilities
Unit Measure: sq.ft. of building space

Quantity Measure

Description	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Value (\$s.f.)
Hillsdale Estates	265,000	265,000	265,000	265,000	265,000	265,000	265,000	265,000	265,000	265,000	
Hillsdale Terraces	-	-	164,510	164,510	164,510	164,510	164,510	164,510	164,510	164,510	
Fairview	128,306	128,306	128,306	128,306	128,306	128,306	128,306	128,306	128,306	128,306	
Lakeview	70,000	70,000	70,000	123,559	123,559	123,559	123,559	123,559	123,559	123,559	
Total	463,306	463,306	627,816	681,375	681,375	681,375	681,375	681,375	681,375	681,375	\$ 280

Population	547,660	560,190	573,050	584,360	599,955	611,390	621,865	626,110	633,130	639,655
Per Capita Service Level	0.846	0.827	1.096	1.166	1.136	1.115	1.096	1.088	1.076	1.065

10 Year Average	2003-2012
Quantity per capita	1.051
Quality (\$/sq.ft.)	\$ 280
Combined Quantity/Quality Level (\$/capita)	\$ 294.35

DC Amount (before deductions)	
2013-2023 Forecast Population Growth	143,595
\$ per Capita	\$ 294.35
Eligible Amount	\$ 42,267,281

Service Level Calculation Sheet

Service: Long Term Care Facilities
Unit Measure: Total Value of Other Assets

Quantity Measure

Description	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 Value
Land (acres)	33	33	33	33	33	33	33	33	33	33	\$ 450,000
Total Value of Other Assets	\$ 14,721,017	\$ 14,721,017	\$ 14,721,017	\$ 14,721,017	\$ 14,721,017	\$ 14,721,017	\$ 14,721,017	\$ 14,721,017	\$ 14,721,017	\$ 14,721,017	

Population	547,660	560,190	573,050	584,360	599,955	611,390	621,865	626,110	633,130	639,655
Per Capita Service Level	\$ 26.88	\$ 26.28	\$ 25.69	\$ 25.19	\$ 24.54	\$ 24.08	\$ 23.67	\$ 23.51	\$ 23.25	\$ 23.01

10 Year Average	2003-2012
Quantity per capita	\$ 24.61

DC Amount (before deductions)	
2013-2023 Forecast Population Growth	143,595
\$ per Capita	\$ 24.61
Eligible Amount	\$ 3,533,916

INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION
MUNICIPALITY: Region of Durham

SERVICE: Long Term Care

Pri. No.	Increased Service Needs Attributable to Anticipated Development 2013-2022	Timing	Gross Capital Cost Est. (\$2013)	Ineligible re: Level of Service	Eligible Increase in Need	Less:			Other (e.g. 10% Statutory Deduction)	Potential DC Recoverable Cost		
						Benefit to Existing Development/ U.E.C.	Grants, Subsidies & Other Contributions Attrib. to New Development	Subtotal		Net Costs Benefiting New Development	Residential Share 100%	Non-Residential Share 0%
1	65 Bed Addition to Hillisdale Terraces ⁽¹⁾		1,803,085	-	N/A	N/A	N/A	N/A	N/A	N/A	1,803,085	-
	Total Estimated Capital Cost		\$ 1,803,085	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,803,085	\$ -

Notes

- ⁽¹⁾ The Region issued \$2,626,000 in debentures in 2004 to finance the growth related share of the Hillisdale Terraces Facility.
The outstanding debt of \$1,803,085 plus interest charges are the amounts included in the cash flow table that will be funded by DC's.

LONG TERM CARE
Region-Wide Development Charge
Cash Flow Calculation of the Residential Development Charge
(\$000's)

Year	DC Reserve Fund Opening Balance	Development Related Expenditures	Development Related Expend. Inflated @ 3.5%	Issuing of New Debt	Debt Costs Existing Debt ⁽¹⁾	Eqv. Single Detached Units	Unit Charge Inflated @ 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%/debt rate 6.0%	DC Reserve Fund Closing Bal.
2013-14	730	0	0	0	223	3,795	29	108	615	18	634
2014-15	634	0	0	0	223	4,605	30	136	547	16	563
2015-16	563	0	0	0	223	5,420	31	166	506	15	521
2016-17	521	0	0	0	223	5,420	32	172	469	14	483
2017-18	483	0	0	0	223	5,420	33	178	438	13	451
2018-19	451	0	0	0	223	5,650	34	192	419	13	432
2019-20	432	0	0	0	223	5,650	35	198	407	12	419
2020-21	419	0	0	0	223	5,650	36	205	401	12	413
2021-22	413	0	0	0	223	5,650	38	212	402	12	414
2022-23	414	0	0	0	634 ⁽²⁾	5,650	39	220	0	0	0
TOTAL		0	0	0	2,643	52,910		1,787		126	

	Single/Semi Detached	Medium Density Multiple	2 Bedroom Apartment	1 Bedroom Apartment
DC/Unit	\$29	\$23	\$17	\$11

Notes

- (1) Existing debt payments related to debt issued for Hillside Terraces in Oshawa in 2004 (200 Bed Home)
(2) Final year of debt servicing costs represents debt servicing costs from 2022 to 2024.

4.0 HEALTH AND SOCIAL SERVICES

The Region is introducing a new service to be included in this development charge study, for Health and Social Services operational floor space.

The Region's five year capital forecast includes the provision for a new Social Services program delivery site in 2014 which would incorporate a relocated Social Assistance office from 505 Wentworth in the City of Oshawa which has insufficient space to accommodate additional staff and program activities. The facility would also consolidate the site with the relocation of the current Ontario Works (OW) program delivery office currently located at 200 John St in the City of Oshawa as well as expansion of Family Services in Oshawa. This facility is to provide service delivery associated with social assistance and family services and is not considered administrative headquarters space.

The facility is estimated at \$17.0 million, however a significant portion is replacing existing leased space, therefore the growth component is estimated at 30%.

The allocation of costs attributable to new development is 100% residential has been made based on social services programs being delivered primarily to serve the needs of the residents/population of the Region.

Service Level Calculation Sheet

Service: Health and Social Services
Unit Measure: sq.ft. of building space

Quantity Measure	Description	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Value (\$/s.f.)
Child Care	Ajax Child Care Centre	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	186
	Edna Thomson Child Care Centre	7,717	7,717	7,717	7,717	7,717	7,717	7,717	7,717	7,717	7,717	186
	Gibb St Child Care Centre	2,008	2,008	2,008	2,008	2,008	2,008	2,008	2,008	2,008	2,008	186
	Lakewoods Child Care Centre	4,088	4,088	4,088	4,088	4,088	4,088	4,088	4,088	4,088	4,088	186
	Pickering Child Care Centre	4,334	4,334	4,334	4,334	4,334	4,334	4,334	4,334	4,334	4,334	186
	Whitby Child Care Centre	4,089	4,089	4,089	4,089	4,089	4,089	4,089	4,089	4,089	4,089	186
	Sunderland Nursery Centre	1,912	1,912	1,912	1,912	1,912	1,912	1,912	1,912	1,912	1,912	186
	Cannington Nursery Centre	1,912	1,912	1,912	1,912	1,912	1,912	1,912	1,912	1,912	1,912	186
	Beaverton Nursery Centre	1,912	1,912	1,912	1,912	1,912	1,912	1,912	1,912	1,912	1,912	186
Health and Related Services	Environmental Health (101 Consumers)	-	-	8,113	8,113	8,113	8,113	8,113	8,113	8,113	8,113	186
	Durham Health - Dental Clinic	4,713	4,713	4,713	4,713	4,713	4,713	4,713	4,713	4,713	4,713	186
	Durham Health - Breastfeeding Clinic	-	-	-	-	-	-	-	-	-	-	186
	Sexual Health Clinic (181 Perry) - Port Perry	-	-	-	3,897	3,897	3,897	3,897	3,897	3,897	3,897	186
	Sexual Health Clinic (Oshawa Centre Galleria) - Oshawa	2,539	2,539	2,539	2,539	2,539	2,539	2,539	2,539	2,539	2,539	186
	Sexual Health Clinic (Pickering Town Centre) - Pickering	1,476	1,476	1,476	1,476	1,476	1,476	1,476	1,476	1,476	1,476	186
Social Services	Brock - Family Services (135 Albert)	460	460	460	460	460	460	460	460	460	460	186
	Oshawa - Income Support (505 Wentworth)	12,037	12,037	12,037	12,037	12,037	12,037	12,037	12,037	12,037	12,037	186
	Oshawa (850 King St W)	36,956	36,956	36,956	-	-	-	-	-	-	-	186
	Oshawa (2 Simcoe)	6,382	6,382	6,382	-	-	-	-	-	-	-	186
	Oshawa - Income Support (200 John)	15,776	15,776	15,776	15,776	15,776	15,776	15,776	15,776	15,776	15,776	186
	Bowmanville (234 King)	1,940	1,940	1,940	1,940	1,940	1,940	1,940	1,940	1,940	1,940	186
	Port Perry (169 North)	500	500	500	500	500	500	500	500	500	500	186
	Uxbridge (2 Campbell)	4,810	4,810	4,810	4,810	4,810	4,810	4,810	4,810	4,810	4,810	186
	Ajax (140 Commercial)	12,234	12,234	12,234	12,234	12,234	12,234	12,234	12,234	12,234	12,234	186
	Ajax (339 Westney)	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	3,638	186
Total		135,532	135,532	143,645	104,204	104,204	104,204	108,483	110,726	116,976	118,888	

Population	547,660	560,190	573,050	584,360	599,955	611,390	621,865	626,110	633,130	639,055
Per Capita Service Level	0.248	0.242	0.251	0.178	0.174	0.170	0.174	0.177	0.185	0.186

10 Year Average		2003-2012
Quantity per capita		0.198
Quality (\$/sq.ft.)	\$	186
Combined Quantity/Quality Level (\$/capita)	\$	36.96

DC Amount (before deductions)		
2013-2023 Forecast Population Growth		143,595
\$ per Capita	\$	36.96
Eligible Amount	\$	5,307,547

Service Level Calculation Sheet

Service: Health and Social Services
Unit Measure: Total Value of Other Assets

Quantity Measure

Description	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 \$ Value per Item
Land (acres)	7.0	7.0	7.4	6.5	6.5	6.5	6.5	6.6	6.9	7.0	\$ 450,000
Total Value of Other Assets	\$ 3,140,720	\$ 3,140,720	\$ 3,310,010	\$ 2,942,820	\$ 2,942,820	\$ 2,942,820	\$ 2,942,820	\$ 2,989,163	\$ 3,118,295	\$ 3,157,793	

Population	547,660	560,190	573,050	584,360	599,955	611,390	621,865	626,110	633,130	639,655
Per Capita Service Level	\$ 5.73	\$ 5.61	\$ 5.78	\$ 5.04	\$ 4.91	\$ 4.81	\$ 4.73	\$ 4.77	\$ 4.93	\$ 4.94

10 Year Average	2003-2012
Quantity per capita	\$ 5.12

DC Amount (before deductions)	
2013-2023 Forecast Population Growth	143,595
\$ per Capita	\$ 5.12
Eligible Amount	\$ 735,781

INFRASTRUCTURE COSTS COVERED IN THE DC CALCULATION
MUNICIPALITY: Region of Durham

SERVICE: Health and Social Services

P/j. No.	Increased Service Needs Attributable to Anticipated Development 2013-2022	Timing	Gross Capital Cost Est. (\$2013) ⁽¹⁾	Ineligible re: Level of Service	Eligible Increase in Need	Less:			Subtotal	Less:			Potential DC Recoverable Cost			
						Benefit to Existing Development/ U.E.C.	Grants, Subsidies & Other Contributions Attrib. to New Development	Other (e.g. 10% Statutory Deduction)		Net Costs Benefiting New Development	Residential Share 100%	Non-Residential Share 0%				
1	Social Services Building ⁽¹⁾	2014	5,100,000	-	5,100,000	255,000	-	484,500	4,845,000	4,360,500	4,360,500	-				
	Total Estimated Capital Cost		\$ 5,100,000	-	\$ 5,100,000	\$ 255,000	\$ -	\$ 484,500	\$ 4,845,000	\$ 4,360,500	\$ 4,360,500	\$ -				

⁽¹⁾ The cost of the Social Services Building is estimated at \$17.0 million, \$5.1 million (30%) which is growth related as a portion of the building is replacing existing facilities.

**Health and Social Services
Region-Wide Development Charge
Cash Flow Calculation of the Residential Development Charge
(\$000's)**

Year	DC Reserve Fund Opening Balance	Development Related Expenditures	Development Related Expend. Inflated @ 3.5%	Issuing of New Debt	Debt Costs on new Debt 6.0%	Eqv. Single Detached Units	Unit Charge Inflated @ 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%/debt rate 6.0%	DC Reserve Fund Closing Bal.
2013-14	0	0	0	0	0	3,795	93	353	353	11	364
2014-15	364	4,361	4,513	4,513	0	4,605	96	444	808	24	832
2015-16	832	0	0	0	613	5,420	100	541	759	23	782
2016-17	782	0	0	0	613	5,420	103	559	728	22	750
2017-18	750	0	0	0	613	5,420	107	579	716	21	737
2018-19	737	0	0	0	613	5,650	111	625	749	22	771
2019-20	771	0	0	0	613	5,650	114	647	805	24	829
2020-21	829	0	0	0	613	5,650	118	669	885	27	911
2021-22	911	0	0	0	613	5,650	123	693	991	30	1,021
2022-23	1,021	0	0	0	1,737	5,650	127	717	0	0	0
TOTAL		4,361	4,513	4,513	6,030	52,910		5,826		204	

	Single / Semi Detached	Medium Density Multiple	2 Bedroom Apartment	1 Bedroom Apartment
DC/Unit	\$93	\$75	\$54	\$35

(1) Debt issued for the Social Services Building

5.0 DEVELOPMENT – RELATED STUDIES

When a municipality intends to introduce a by-law to impose development charges against land to pay for increased capital costs required because of increased needs of servicing arising from development, the *Development Charges Act, 1997* requires municipalities to complete a development charge background study.

The background study requires estimates of the anticipated amount, type and location of development for which development charges can be imposed. The anticipated development estimates are used to estimate the servicing requirements which are used to calculate the capital costs necessary to provide the increased services.

The capital costs required to maintain the municipality's level of service are the basis for the development charge. The *Development Charges Act, 1997* indicates that the costs of the development charge background study required under the Act are also "capital costs". Therefore, the costs to prepare the background study can be included and used to calculate a development charge quantum for Development – Related Studies. The costs associated with the study include:

- Economic consultant
- Engineering consulting services
- Research
- Legal issues

The capital program for Development Related Studies also include estimates for Growth Plan Studies that will be completed at a minimum of five year intervals by the Region.

Unlike other services such as Police Services and Long Term Care, there is no definable service level for Development Charge Background and related studies. However, these studies are largely defined by the requirements of the various applicable Provincial Legislation and guidelines.

There is no benefit to existing share applied as the studies within the forecast period are focused on planning for new development.

The allocation of costs attributable to new development between residential and non-residential growth has been made based on the share of total growth (143,595 population and 84,380 employment) that each sector represents. On this basis, the residential share is 63%.

DEVELOPMENT RELATED STUDIES
Region-Wide Development Charge
Cash Flow Calculation of the Residential Development Charge
(\$000's)

Year	DC Reserve Fund Opening Balance	Development Related Expenditures	Development Related Expend. Inflated @ 3.5%	Equivalent Single Detached Units	Unit Charge Inflated @ 3.5%	Anticipated Revenue	Surplus (Deficit)	Int. Earnings 3.0%/debt rate 6.00%	DC Reserve Fund Closing Bal.
2013-14	0	0	0	3,795	24	89	89	3	92
2014-15	92	0	0	4,605	24	112	204	6	211
2015-16	211	0	0	5,420	25	137	347	10	358
2016-17	358	0	0	5,420	26	142	499	15	514
2017-18	514	617	708	5,420	27	147	(48)	(3)	(51)
2018-19	(51)	0	0	5,650	28	158	108	3	111
2019-20	111	0	0	5,650	29	164	274	8	283
2020-21	283	0	0	5,650	30	169	452	14	466
2021-22	466	0	0	5,650	31	175	641	19	660
2022-23	660	617	841	5,650	32	181	0	0	0
TOTAL		1,235	1,550	52,910		1,474		76	

DC/Unit	Single/Semi Detached	Medium Density Multiple	2 Bedroom Apartment	1 Bedroom Apartment
	\$24	\$19	\$14	\$9

APPENDIX I

**LONG TERM CAPITAL
AND OPERATING COST EXAMINATION**

1.0 INTRODUCTION

This appendix documents the examination of long term capital and operating costs required by the Development Charges Act, 1997 for each service included in the development charge by-law. The appendix presents the analysis for the following services:

- Regional Roads;
- Regional Water Supply and Sanitary Sewerage;
- Regional Police;
- Emergency Medical Services (Land Ambulance);
- Health and Social Services; and
- Long Term Care

2.0 REGIONAL ROADS

2.1 Capital Costs

The Regional Roads capital costs anticipated over the period 2013-2027 are provided in Appendix E. These proposed expenditures, expressed in 2013 dollars, are for both growth-related projects, which are eligible for development charge financing, and rehabilitation works, which are attributed to existing development. The capital works forecasts are summarized in Table I.1 on the following page, and are based on Tables E.1 and E.2 from Appendix E.

2.2 Operating Costs

The operating costs anticipated over the period 2013 to 2027 were projected from budgeted program costs, net of recoveries and revenues, contained in the 2012 and 2013 General Levy Budget. The Regional Roads operating budget is divided into two categories:

- *Roads and Streets Maintenance Operations* – This category includes any costs related to the operation and maintenance of the road allowance and travelled portion of the roadway, except for those tasks directly related to controlling the flow of traffic.
- *Traffic Operations* – This category includes any costs related to controlling the flow of traffic, primarily for traffic signals, signs, and pavement markings.

TABLE I.1 - REGIONAL ROADS: LONG TERM CAPITAL AND OPERATING COST EXAMINATION (2013 - 2027)									
SERVICE: REGIONAL ROADS		2011 BUDGET	FORECAST EXPENDITURE						
			2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027
CAPITAL EXPENDITURES FOR PROPOSED CAPITAL WORKS PROGRAM (YEAR 2013-2027)									
A. Growth Related Projects (All projects with DC components)	Attribution								
	1 New Residential	18,080,041	23,005,715	114,614,111	25,772,269	28,426,493	255,327,180	217,882,423	683,108,232
	2 New Non-Residential (Commercial)	2,671,864	3,376,094	16,894,684	3,815,672	4,190,250	37,699,116	31,925,756	100,573,434
	3 New Non-Residential (Industrial & Institutional) General Levy Financing	5,878,100	7,427,406	37,168,304	8,394,478	9,218,550	82,938,055	70,236,663	221,261,556
	4 Post Period Benefit	0	214,081	214,081	214,081	466,807	0	89,221,710	90,330,760
	5 Grants, Subsidy and Other	877,296	3,210,204	1,600,000	0	0	2,333,333	0	8,020,833
	6 Total (1+2+3+4+5)	27,507,300	37,233,500	170,491,180	38,196,500	42,302,100	378,297,684	409,266,552	1,103,294,815
B. Non-Growth Projects (100% GL only)									
	1 General Levy Financing (Benefit to Existing)	26,843,367	36,619,500	40,984,000	37,428,500	40,884,900	236,744,854	220,809,562	640,314,683
C. Total Growth and Non-Growth Projects (A+B)	Attribution								
	1 New Residential	18,080,041	23,005,715	114,614,111	25,772,269	28,426,493	255,327,180	217,882,423	683,108,232
	2 New Non-Residential (Commercial)	2,671,864	3,376,094	16,894,684	3,815,672	4,190,250	37,699,116	31,925,756	100,573,434
	3 General Levy Financing (Industrial & Institutional) General Levy Financing (Benefit to Existing)	5,878,100 26,843,367	7,427,406 36,619,500	37,168,304 40,984,000	8,394,478 37,428,500	9,218,550 40,884,900	82,938,055 236,744,854	70,236,663 220,809,562	221,261,556 640,314,683
	4 Post Period Benefit	0	214,081	214,081	214,081	466,807	0	89,221,710	90,330,760
	5 Grants, Subsidy and Other	877,296	3,210,204	1,600,000	0	0	2,333,333	0	8,020,833
	6 Total (1+2+3+4+5)	54,350,667	73,853,000	211,475,180	75,625,000	83,187,000	615,042,538	630,076,114	1,743,609,498
OPERATING EXPENDITURES FOR EXISTING WORKS AND PROPOSED CAPITAL WORKS PROGRAM (YEAR 2013-2027)									
D. Annual Cost									
	1 Roads and Streets Maintenance Operations	16,288,603	17,463,386	18,044,840	18,119,194	18,193,281	92,954,770	96,179,884	
	2 Traffic Operations	6,514,404	7,036,540	7,188,893	7,230,095	7,260,777	36,957,278	37,964,325	
	3 Total (1+2)	22,803,007	24,499,926	25,233,732	25,349,289	25,454,059	129,912,048	134,144,209	
4 Annual Increase		787,222 (Note 1)	909,697	733,807	115,557	104,770	850,806 (Note 2)	795,811 (Note 3)	4,297,669
E. Forecast Population		632,498	654,915	668,260	681,605	694,915			
F. Cost per Capita		\$36.05	\$37.41	\$37.76	\$37.19	\$36.63	\$37.91	\$39.24	

Notes:

1. Roads and Streets Maintenance Operations and Traffic Operations costs identified in 2011 are based on actual 2011 General Levy Budget provisions.
2. Represents total increase for 5 year period (2018 to 2022)
3. Represents total increase for 5 year period (2023 to 2027)

Unit costs were calculated for each program area within these two broad categories. Given the different nature of the program areas, the unit costs were calculated based on three measures:

- *Per linear kilometre of road* – For program areas that involve services related to the edge of pavement or which are general in nature;
- *Per linear lane-kilometre of road* – For program areas that involve services related to the road surface; and
- *Per traffic signal* – For program areas that involve services related to traffic signals and systems.

The following table summarizes the various program areas, the unit of measure selected, the 2011 General Levy Budget amount and per unit costs for 2011 and indexed 2013 figures.

REGION OF DURHAM REGIONAL ROADS OPERATING PROGRAMS AND UNIT COSTS				
Program Area	Unit of Measure	2011 Budget Amount	2011 Unit Cost	Indexed to 2013 \$
2011 Inventory	Km	832		
	Lane-km	2,149		
	Signals	556		
Roads and Streets Maintenance Operations				
Winter Control	Lane-km	\$8,635,962	\$4,018	\$4,157
Roadside Maintenance	Km	\$4,156,244	\$4,998	\$5,171
Storm Sewers	Km	\$278,898	\$335	\$347
Depot Operations	Km	\$1,455,100	\$1,750	\$1,810
Maintenance General	Km	\$258,159	\$310	\$321
Overhead	Km	\$1,504,240	\$1,809	\$1,872
	Net cost	\$16,288,603		
Traffic Operations				
Signals and Systems	Signal	\$1,593,259	\$2,866	\$2,965
Signs, Markings & Roadside Protection	Km	\$1,400,996	\$1,685	\$1,743
Engineering & Central Control System	Km	\$2,298,375	\$2,764	\$2,860
Overhead	Km	\$1,221,774	\$1,469	\$1,520
	Net cost	\$6,514,404		
TOTAL 2011 OPERATING COST		\$22,803,007		

The unit costs, as calculated above, were applied to the forecast Regional Roads inventory to estimate future operating costs. The length of new Regional Road, in both kilometres and lane-kilometres, to be constructed through the Capital Works Forecast (Tables E.1 and E.2 from Appendix E) was estimated and added to existing inventory figures to obtain totals. The number of traffic signals under Regional jurisdiction was assumed to increase by 10 signals annually in the Capital Works Forecast. The costs for 2013 are based on actual budget provisions.

The forecasted operating costs over the period 2013 – 2027 are provided at the bottom of Table I.1. The costs are presented on an annual basis and expressed in terms of the cost per capita. The table illustrates that the per capita operating cost associated with the new Regional Road infrastructure is projected to increase slightly over the cost of providing the service in 2011.

3.0 REGIONAL WATER SUPPLY AND SANITARY SEWERAGE

3.1 Capital Costs

The capital costs for Regional water supply and sanitary sewerage services anticipated over the period 2013-2027 are provided in Appendices F and G. These proposed expenditures, expressed in 2013 dollars, are for both growth-related projects, which are eligible for development charge financing, and remedial/replacement costs, which are attributed to existing development. The capital works forecasts as summarized in the following Tables I.2 and I.3 are based on Tables F.1 and F.2 and Tables G.1 and G.2, from Appendix F and G respectively.

3.2 Operating Costs

The operating costs anticipated over the period 2013-2027 were projected from budget program costs, net of recoveries and revenues, contained in the 2013 Water Supply and Sanitary Sewerage Budgets. The operating costs are divided into two categories:

3.2.1 Maintenance Operations

Costs associated with the operation of the water distribution and sanitary sewerage collection systems have been forecast based on the year 2011 cost per metre of pipe, indexed to 2013 dollars. Maintenance Operations costs include all operating and maintenance costs associated with the watermains and sanitary sewers.

The cost for Maintenance Operations was calculated as follows:

REGION OF DURHAM WATER SUPPLY AND SANITARY SEWERAGE MAINTENANCE OPERATIONS COSTS		
	Water Supply	Sanitary Sewerage
2011 Maintenance Operations Annual Budget Costs	\$10,389,000	\$5,125,500
Number of metres of pipe in 2011 inventory	2,359,000	2,032,000
Cost per metre (\$2011)	\$4.40	\$2.52
Cost per metre (\$2013 – indexed by 2% per year)	\$4.58	\$2.62

The cost per metre, as calculated above, was applied to the forecast pipe inventory to estimate future Maintenance Operations costs. The total length of pipe proposed in the Capital Works program and forecast to be constructed in conjunction with new development was estimated based on available information. The Maintenance Operations cost for 2013 is based on actual budget provisions.

3.2.2 Plant Operations

Costs associated with the operation of Water Supply Plants (WSP) and Water Pollution Control Plants (WPCP) have been forecast based on the 2011 cost per MIGD (million gallons per day) average day flow, indexed to 2013 dollars. Plant Operations costs include all operating costs associated with the plants as well as water storage facilities, water pumping stations and sanitary sewage pumping stations.

The cost for Plant Operations was calculated as follows:

REGION OF DURHAM WATER SUPPLY AND SANITARY SEWERAGE PLANT OPERATIONS COSTS		
	Water Supply	Sanitary Sewerage
2011 Plant Operations Annual Budget Costs	\$16,845,100	\$25,055,000
2011 Average Day Flow (MIGD)	42.87	49.59
Cost per MIGD	\$392,900	\$505,200
Cost per MIGD (\$2013 – indexed by 2% per year)	\$408,800	\$525,600

The cost per MIGD, as calculated above, was applied to the forecast flow to estimate future Plant Operations costs. The Plant Operations cost for 2013 is based on actual budget provisions.

The forecasted operating costs over the period 2013 – 2027 are provided at the bottom of Table I.2 and I.3. The costs are presented on an annual basis and expressed in terms of the cost per capita. The table illustrates that the per capita operating cost associated with the new Water Supply and Sanitary Sewerage infrastructure is projected to increase slightly over the cost of providing the service in 2011.

TABLE I.2 - REGIONAL WATER SUPPLY: LONG TERM CAPITAL AND OPERATING COST EXAMINATION (2013 - 2027)										
SERVICE: WATER SUPPLY		2012 BUDGET	FORECAST EXPENDITURE							
			2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027	Total
CAPITAL EXPENDITURES FOR PROPOSED CAPITAL WORKS PROGRAM (YEAR 2013 - 2027)										
A.	Growth Related Projects (All projects with DC components)									
	Attribution									
	1 New Residential	14,259	51,378	114,714	35,806	49,450	112,170	194,971	572,746	
	2 New Non-Residential (Commercial)	534	2,131	10,599	1,254	1,567	4,838	5,859	26,781	
	3 New Non-Residential (Industrial & Institutional)	1,871	7,455	36,763	4,399	5,507	16,908	20,614	93,518	
	4 Post Period Benefit	0	475	9,180	957	1,500	31,572	11,498	55,183	
	5 Grants, Subsidy and Other	0	0	0	0	0	0	0	0	
	6 Seaton	0	1,695	0	1,247	780	35,623	3,680	43,025	
	7 Federal Lands	0	1,487	0	2,354	340	14,875	0	19,056	
8 Total (1+2+3+4+5+6+7)		16,664	64,621	171,256	46,016	59,144	215,986	236,622	810,310	
B.	Non-Growth Projects (100% UR only)									
	1 User Rate Financing (Benefit to Existing)	13,415	35,641	17,755	20,368	13,256	34,099	13,559	148,082	
C.	Total Growth and Non-Growth Projects (A+B)									
	Attribution									
	1 New Residential	14,259	51,378	114,714	35,806	49,450	112,170	194,971	572,746	
	2 New Non-Residential (Commercial)	534	2,131	10,599	1,254	1,567	4,838	5,859	26,781	
	3 User Rate Financing (Industrial & Institutional)	1,871	7,455	36,763	4,399	5,507	16,908	20,614	93,518	
	4 Post Period Benefit	0	475	9,180	957	1,500	31,572	11,498	55,183	
	5 Grants, Subsidy and Other	0	0	0	0	0	0	0	0	
	6 Seaton	0	1,695	0	1,247	780	35,623	3,680	43,025	
	7 Federal Lands	0	1,487	0	2,354	340	14,875	0	19,056	
8 Total (1+2+3+4+5+6+7)		30,079	100,262	189,011	66,384	72,400	250,085	250,181	958,402	
OPERATING EXPENDITURES FOR EXISTING WORKS AND PROPOSED CAPITAL WORKS PROGRAM (YEAR 2013 - 2027)										
D.	Annual Cost									
	1 Maintenance Operations	10,601,059	11,008,903	11,220,237	11,442,427	11,712,860	62,816,828	73,119,770		
	2 Plant Operations	17,188,923	17,799,343	18,409,763	19,018,207	19,622,697	20,156,024	136,057,990		
	3 Total (1+2)	27,789,982	28,604,324	29,418,666	30,238,444	31,065,124	31,868,884	172,972,670	209,177,760	
	4 Annual Increase		814,342 (Note 1)	814,342	819,778	826,680	803,760	141,103,786 (Note 2)	36,205,090 181,387,778	
E.	Forecast Urban Population		580,687	589,639	598,591	607,543	616,495	625,479	3,267,785	3,599,415
F.	Cost per Capita		\$47.86	\$48.51	\$49.15	\$49.77	\$50.39	\$50.95	\$52.93	\$58.11
Notes:										
1. Maintenance Operations and Plant Operations costs identified in 2013 are based on actual 2012 Budget provisions.										
2. Represents total increase for 5 year period (2018 to 2022)										
3. Represents total increase for 5 year period (2023 to 2027)										

TABLE I.3 - REGIONAL SANITARY SEWERAGE: LONG TERM CAPITAL AND OPERATING COST EXAMINATION (2013 - 2027)										
SERVICE: SANITARY SEWERAGE		2012 BUDGET	FORECAST EXPENDITURE							
			2013	2014	2015	2016	2017	2018 - 2022	2023 - 2027	Total
CAPITAL EXPENDITURES FOR PROPOSED CAPITAL WORKS PROGRAM (YEAR 2013 - 2027)										
A.	Growth Related Projects (All projects with DC components)									
	Attribution									
	1 New Residential		22,117	22,501	29,891	26,799	45,594	181,932	182,760	511,593
	2 New Non-Residential (Commercial)		3,049	2,324	3,654	2,346	3,771	19,652	26,790	61,585
	3 New Non-Residential (Industrial & Institutional) User Rate Financing		10,498	7,989	12,574	8,055	12,944	67,576	75,078	194,714
	4 Post Period Benefit		5,634	0	0	634	792	7,973	187,810	202,843
	5 Grants, Subsidy and Other		165	115	0	0	0	0	0	280
	6 Seaton		1,246	3,895	3,895	3,895	0	7,084	5,678	25,693
	7 Federal Lands		2,818	0	0	0	0	3,042	12,836	18,696
	8 Total (1+2+3+4+5+6+7)		45,526	36,824	50,014	41,729	63,101	287,259	490,951	1,015,404
B.	Non-Growth Projects (100% UR only)									
	1 User Rate Financing (Benefit to Existing)		9,110	20,049	19,764	18,336	13,922	30,241	8,531	119,953
C.	Total Growth and Non-Growth Projects (A+B)									
	Attribution									
	1 New Residential		22,117	22,501	29,891	26,799	45,594	181,932	182,760	511,593
	2 New Non-Residential (Commercial)		3,049	2,324	3,654	2,346	3,771	19,652	26,790	61,585
	3 User Rate Financing (Industrial & Institutional) User Rate Financing (Benefit to Existing)		10,498	7,989	12,574	8,055	12,944	67,576	75,078	194,714
	4 Post Period Benefit		5,634	0	0	634	792	7,973	187,810	202,843
	5 Grants, Subsidy and Other		165	115	0	0	0	0	0	280
	6 Seaton		1,246	3,895	3,895	3,895	0	7,084	5,678	25,693
	7 Federal Lands		2,818	0	0	0	0	3,042	12,836	18,696
	8 Total (1+2+3+4+5+6+7)		54,636	56,873	69,778	60,065	77,022	317,500	499,482	1,135,357
OPERATING EXPENDITURES FOR EXISTING WORKS AND PROPOSED CAPITAL WORKS PROGRAM (YEAR 2013 - 2027)										
D.	Annual Cost									
	1 Maintenance Operations	5,230,089	5,336,604	5,443,119	5,553,884	5,670,874	5,812,237	31,294,030	36,859,130	
	2 Plant Operations	25,566,363	25,843,985	26,141,112	26,490,902	26,835,816	27,178,129	143,219,660	160,492,349	
	3 Total (1+2)	30,796,452	31,180,589	31,584,231	32,044,786	32,506,690	32,990,366	174,513,690	197,351,479	
	4 Annual Increase		384,137 (Note 1)	403,642	460,555	461,904	483,676	141,523,324 (Note 2)	2,455,205 (Note 3)	146,172,443
E.	Forecast Urban Population	580,687	589,639	598,591	607,543	616,495	625,479	0	0	
F.	Cost per Capita	\$47.80	\$48.50	\$49.19	\$49.82	\$50.39	\$52.74	\$53.40	\$54.83	
Notes:										
1. Maintenance Operations and Plant Operations costs identified in 2013 are based on actual 2012 Budget provisions.										
2. Represents total increase for 5 year period (2018 to 2022)										
3. Represents total increase for 5 year period (2023 to 2027)										

Notes:
1. Maintenance Operations and Plant Operations costs identified in 2013 are based on actual 2012 Budget provisions.
2. Represents total increase for 5 year period (2018 to 2022)
3. Represents total increase for 5 year period (2023 to 2027)

4.0 REGIONAL POLICE

4.1 Police Facilities

4.1.1 Capital Costs

The capital costs for Regional Police facilities anticipated over the period 2013-2022 are provided in Appendix H. The proposed capital requirements for police facilities are derived from the “5-Year Capital Program for Durham Region Police Services” approved by the Durham Regional Police Services Board and include the construction of the Clarington Police Complex (Phase 2) facilities and construction of an Operations Training Centre (Phase 2). It is anticipated that a new facility to service Ajax and Pickering (Seaton) will also be required to accommodate growth during the 2018-2022 period.

The total estimated capital cost of those projects which are eligible under the DCA, 1997, total \$21.6 million (\$13.6 million from the residential development charge and \$8.0 million from the non-residential charge).

4.1.2 Operating Costs

The operating costs related to the expansion of the Regional Police facilities will be similar to the operating costs of normal police operation. The additional costs will be incorporated into the annual budgetary requirements of the Police Services Board, which are funded from general tax revenues. The Police Services budget is reviewed by Regional Council during the annual budget review process. The approved 2013 budget provided approximately \$4.9 million for the operating and capital costs associated with the existing Regional Police facilities or \$7.63 per capita in 2013. The operating costs per capita is not anticipated to significantly increase with the additional facilities in the forecast period.

4.2 Police Vehicles

4.2.1 Capital Costs

The capital costs for additional Regional Police vehicles anticipated over the period 2013 - 2022 are provided in Appendix H. These costs include 82 additional police vehicles to be added to the existing fleet, with 41 vehicles being added for each five-year period (2012-2017 and 2018-2022).

The total estimated capital cost of those additional vehicles which are eligible under the DCA, 1997, total \$1.9 (\$1.2 million from the residential development charge and \$0.7 from the non-residential charge).

4.2.2 Operating Costs

The operating costs related to the additional Regional Police vehicles are intended to maintain the level of service regarding the number of officers per capita. The additional costs will be incorporated into the annual budgetary requirements of the Police Services Board, which are funded from general tax revenues. The Police Services budget is reviewed by Regional Council during the annual budget review process. The approved 2013 budget provided approximately \$6.0 million for the operating and capital costs associated with the existing Regional Police vehicles or \$9.35 per capita in 2013. The operating costs per capita is not anticipated to significantly increase with the purchase of the additional vehicles over the forecast period.

5.0 **EMERGENCY MEDICAL SERVICES (LAND AMBULANCE)**

5.1 EMS Facilities

5.1.1 Capital Costs

The capital costs for Emergency Medical Services Facilities anticipated over the period 2013 - 2022 are provided in Appendix H. The Region's 5-Year Capital Forecast includes a provision for an additional land ambulance station in 2014 in Sunderland. It is anticipated that an additional 2 stations will also be required to accommodate growth during the 2018-2022 period.

The total estimated capital cost of those projects which are eligible under the DCA, 1997, total \$6.0 million (\$5.1 million from the residential development charge and \$0.9 from the non-residential charge).

5.1.2 Operating Costs

The operating costs related to the Emergency Medical Services Facilities are required to maintain current levels of service within the Ministry of Health guidelines for average response times as the Region grows. The additional costs will be incorporated into the annual budgetary requirements of the Emergency Medical Services Division which are funded from general tax revenues. The Emergency Medical Services budget is reviewed by Regional Council during the annual budget review process. The approved 2013 budget provided approximately \$2.1 million for the operating and capital costs associated with the existing Ambulance facilities or \$3.21 per capita in 2013. The operating costs per capita is not anticipated to significantly increase with the additional facilities in the forecast period.

5.2 EMS Vehicles

5.2.1 Capital Costs

The capital costs for additional Emergency Medical Services vehicles anticipated over the period 2013-2022 are provided in Appendix H. The Region's 5-year capital forecast includes the purchase of eleven (11) additional vehicles for the 2013-2017 period to

maintain compliance with the Provincial legislated performance standards. It is anticipated that seven (7) additional vehicle acquisitions will be made during the 2018-2022 period.

The total estimated gross capital cost of those Emergency Medical Services vehicles which are eligible under the DCA, 1997, total \$1.9 million (\$1.6 million from the residential development charge and \$0.3 million from the non-residential charge).

5.2.2 Operating Costs

The operating costs related to the additional Emergency Medical Services vehicles are intended to maintain compliance with legislated performance standards. The additional costs will be incorporated into the annual budgetary requirements of the Emergency Medical Services, which are funded from general tax revenues. The Emergency Medical Services budget is reviewed by Regional Council during the annual budget review process. The approved 2013 budget provided approximately \$2.9 million for the operating and capital costs associated with the existing EMS vehicles or \$4.52 per capita in 2013. The operating costs per capita is not anticipated to significantly increase with the purchase of the additional vehicles over the forecast period.

6.0 LONG TERM CARE

6.1 Capital Costs

The capital costs anticipated for Homes for the Aged over the period 2013-2022 are provided in Appendix H. The costs only include the debt servicing costs related to the expansion portion of the reconstruction of the South Building of Hillsdale Terraces in Oshawa. This 200-bed facility included 65 new beds with the balance being replacement.

The estimated gross capital cost of the expansion portion of the project which is eligible under the DCA, 1997, total \$11.7 million, based on the number of new beds as a percentage of total beds applied to the total project cost of \$36 million. Approximately \$3.9 million of the gross cost of the 65-bed addition is potentially recoverable from the residential development charges after the applicable grant funding has been taken into consideration.

The outstanding debt is \$1.8 million and the principal and interest costs are included in the cash flow calculation.

6.2 Operating Costs

The operating costs of the additional 65 beds were included in the 2005 Regional Budget.

7.0 HEALTH AND SOCIAL SERVICES

7.1 Health and Social Services Facilities

7.1.1 Capital Costs

The capital costs for Health and Social Services Facilities anticipated over the period 2013 - 2022 are provided in Appendix H. It is anticipated that a new facility will be required to accommodate growth during the 2013-2017 period.

The estimated capital cost of the capital project which is eligible under the DCA, 1997, totals \$4.4 million (\$4.4 million from the residential development charge).

7.1.2 Operating Costs

Operating costs related to the Social Services Facility are required to maintain current levels of service as the Region grows. The additional costs will be incorporated into the annual budgetary requirements of the Social Services Division which are funded from general tax revenues. The Social Services budget is reviewed by Regional Council during the annual budget review process. The approved 2013 budget provided approximately \$1.3 million for the operating and capital costs associated with the existing Social Services facilities or approximately \$2.04 per capita in 2013. The operating costs per capita is not anticipated to significantly increase with the additional facilities in the forecast period.

APPENDIX J

INTER-REGIONAL DEVELOPMENT CHARGE COMPARISON

TABLE 1A
UNIFORM RESIDENTIAL DEVELOPMENT CHARGES
PER FULLY SERVICED SINGLE DETACHED UNIT
FOR GREATER TORONTO AREA MUNICIPALITIES & HAMILTON
AS AT MARCH 5, 2013

Municipality	Lower/ Single Tier	Upper Tier	Education	Total
1 Oakville (GF)	\$ 23,202	\$ 39,986	\$ 3,665	\$ 66,853
2 Markham	\$ 22,771	\$ 40,421	\$ 2,020	\$ 65,212
3 Brampton	\$ 25,519	\$ 36,246	\$ 2,146	\$ 63,911
4 Richmond Hill	\$ 19,023	\$ 40,421	\$ 2,020	\$ 61,464
5 King	\$ 17,189	\$ 40,421	\$ 2,020	\$ 59,630
6 Mississauga	\$ 20,973	\$ 36,246	\$ 2,146	\$ 59,365
7 Milton (GF)	\$ 15,510	\$ 39,986	\$ 3,665	\$ 59,161
8 Aurora	\$ 15,701	\$ 40,421	\$ 2,020	\$ 58,142
9 Oakville (BB)	\$ 23,202	\$ 30,891	\$ 3,665	\$ 57,758
10 Caledon	\$ 19,479	\$ 35,806	\$ 2,146	\$ 57,431
11 Newmarket	\$ 14,652	\$ 40,421	\$ 2,020	\$ 57,093
12 Vaughan	\$ 12,716	\$ 40,421	\$ 2,020	\$ 55,157
13 Whitchurch-Stouffville	\$ 12,282	\$ 40,421	\$ 2,020	\$ 54,723
14 East Gwillimbury	\$ 11,583	\$ 40,421	\$ 2,020	\$ 54,024
15 Halton Hills (GF)	\$ 13,067	\$ 36,307	\$ 3,665	\$ 53,039
16 Milton (BB)	\$ 15,510	\$ 30,891	\$ 3,665	\$ 50,066
17 Georgina	\$ 6,713	\$ 40,421	\$ 2,020	\$ 49,154
18 Burlington (GF)	\$ 7,992	\$ 36,307	\$ 3,665	\$ 47,964
19 Halton Hills (BB)	\$ 13,067	\$ 27,212	\$ 3,665	\$ 43,944
20 Burlington (BB)	\$ 7,992	\$ 27,212	\$ 3,665	\$ 38,869
21 Clarington	\$ 15,518	\$ 20,940	\$ 1,114	\$ 37,572
22 Brock	\$ 13,728	\$ 20,940	\$ 1,964	\$ 36,632
23 Whitby	\$ 12,058	\$ 20,940	\$ 1,964	\$ 34,962
24 Ajax	\$ 12,029	\$ 20,940	\$ 1,964	\$ 34,933
25 Uxbridge	\$ 11,421	\$ 20,940	\$ 1,964	\$ 34,325
26 Scugog	\$ 10,388	\$ 20,940	\$ 1,964	\$ 33,292
27 Pickering	\$ 10,114	\$ 20,940	\$ 1,964	\$ 33,018
28 Oshawa	\$ 7,256	\$ 20,940	\$ 1,964	\$ 30,160
29 Hamilton	\$ 28,247	\$ -	\$ 739	\$ 28,986
30 Toronto	\$ 19,412	\$ -	\$ 544	\$ 19,956
				\$/SDU
				average \$ 47,893
				median \$ 51,553

Note: A component of the Mississauga, Richmond Hill, Markham and Vaughan charge has been converted from a per hectare charge to a hypothetical single detached unit - shown as a area-specific charge for the purpose of this chart.

TABLE 1B
UNIFORM RESIDENTIAL DEVELOPMENT CHARGES
PER FULLY SERVICED SINGLE DETACHED UNIT
FOR MUNICIPALITIES WITH A POPULATION GREATER THAN 125,000
AS AT MARCH 5, 2013

Municipality	Lower/ Single Tier	Upper Tier	Education	Total
1 Oakville (GF)	\$ 23,202	\$ 39,986	\$ 3,665	\$ 66,853
2 Markham	\$ 22,771	\$ 40,421	\$ 2,020	\$ 65,212
3 Brampton	\$ 25,519	\$ 36,246	\$ 2,146	\$ 63,911
4 Richmond Hill	\$ 19,023	\$ 40,421	\$ 2,020	\$ 61,464
5 Mississauga	\$ 20,973	\$ 36,246	\$ 2,146	\$ 59,365
6 Oakville (BB)	\$ 23,202	\$ 30,891	\$ 3,665	\$ 57,758
7 Vaughan	\$ 12,716	\$ 40,421	\$ 2,020	\$ 55,157
8 Burlington (GF)	\$ 7,992	\$ 36,307	\$ 3,665	\$ 47,964
9 Burlington (BB)	\$ 7,992	\$ 27,212	\$ 3,665	\$ 38,869
10 Barrie	\$ 30,707	\$ -	\$ 1,088	\$ 31,795
11 Oshawa	\$ 7,256	\$ 20,940	\$ 1,964	\$ 30,160
12 Hamilton	\$ 28,247	\$ -	\$ 739	\$ 28,986
13 Cambridge	\$ 11,756	\$ 13,169	\$ 1,691	\$ 26,616
14 Ottawa (Outside the Greenbelt)	\$ 24,650	\$ -	\$ 1,057	\$ 25,707
15 Kitchener	\$ 9,662	\$ 13,169	\$ 1,691	\$ 24,522
16 London	\$ 23,623	\$ -	\$ -	\$ 23,623
17 Toronto	\$ 19,412	\$ -	\$ 544	\$ 19,956
18 Windsor	\$ 17,435	\$ -	\$ 591	\$ 18,026
19 Greater Sudbury	\$ 14,829	\$ -	\$ -	\$ 14,829
20 St. Catharines	\$ -	\$ 9,950	\$ -	\$ 9,950
				\$/SDU
				average \$ 38,536
				median \$ 30,978

Note: A component of the Mississauga, Richmond Hill, Markham and Vaughan charge has been converted from a per hectare charge to a hypothetical single detached unit - shown as a area-specific charge for the purpose of this chart.

TABLE 2A
UNIFORM COMMERCIAL/RETAIL DEVELOPMENT CHARGES
PER FULLY SERVICED SQUARE FOOT OF GFA FOR GREATER TORONTO AREA
MUNICIPALITIES & HAMILTON
AS AT MARCH 5, 2013

Municipality	Lower/ Single Tier	Upper Tier	Education	Total
1 Richmond Hill	\$ 10.64	\$ 37.69	\$ 0.52	\$ 48.85
2 Whitchurch-Stouffville	\$ 9.36	\$ 37.69	\$ 0.52	\$ 47.57
3 Markham	\$ 8.72	\$ 37.69	\$ 0.52	\$ 46.93
4 King	\$ 4.60	\$ 37.69	\$ 0.52	\$ 42.81
5 East Gwillimbury	\$ 3.16	\$ 37.69	\$ 0.52	\$ 41.37
6 Aurora	\$ 2.43	\$ 37.69	\$ 0.52	\$ 40.64
7 Vaughan	\$ 2.15	\$ 37.69	\$ 0.52	\$ 40.36
8 Newmarket	\$ 1.79	\$ 37.69	\$ 0.52	\$ 40.00
9 Georgina	\$ 0.38	\$ 37.69	\$ 0.52	\$ 38.59
10 Oakville (GF)	\$ 9.74	\$ 24.99	\$ 1.01	\$ 35.74
11 Burlington (GF)	\$ 8.38	\$ 24.99	\$ 1.01	\$ 34.38
12 Oakville (BB)	\$ 9.74	\$ 22.01	\$ 1.01	\$ 32.76
13 Milton (GF)	\$ 6.55	\$ 24.99	\$ 1.01	\$ 32.55
14 Burlington (BB)	\$ 8.38	\$ 22.01	\$ 1.01	\$ 31.40
15 Halton Hills (GF)	\$ 4.11	\$ 24.99	\$ 1.01	\$ 30.11
16 Milton (BB)	\$ 6.55	\$ 22.01	\$ 1.01	\$ 29.57
17 Brampton	\$ 9.61	\$ 18.22	\$ 0.65	\$ 28.47
18 Mississauga	\$ 8.79	\$ 18.22	\$ 0.65	\$ 27.66
19 Halton Hills (BB)	\$ 4.11	\$ 22.01	\$ 1.01	\$ 27.13
20 Scugog	\$ 6.56	\$ 19.17	\$ -	\$ 25.73
21 Clarington	\$ 5.91	\$ 19.17	\$ 0.43	\$ 25.51
22 Uxbridge	\$ 6.24	\$ 19.17	\$ -	\$ 25.41
23 Brock	\$ 4.75	\$ 19.17	\$ -	\$ 23.92
24 Caledon	\$ 4.52	\$ 18.11	\$ 0.65	\$ 23.28
25 Pickering	\$ 4.04	\$ 19.17	\$ -	\$ 23.21
26 Ajax	\$ 3.48	\$ 19.17	\$ -	\$ 22.65
27 Oshawa	\$ 3.02	\$ 19.17	\$ -	\$ 22.19
28 Whitby	\$ 2.79	\$ 19.17	\$ -	\$ 21.96
29 Toronto	\$ 13.11	\$ -	\$ 0.58	\$ 13.69
30 Hamilton	\$ 11.86	\$ -	\$ 0.22	\$ 12.08
				\$/sq.ft.
				average \$ 31.22
				median \$ 29.84

Note: A component of the Mississauga, Richmond Hill, Markham and Vaughan charge has been converted from a per hectare charge to a hypothetical single detached unit - shown as a area-specific charge for the purpose of this chart.

TABLE 2B
UNIFORM COMMERCIAL/RETAIL DEVELOPMENT CHARGES
PER FULLY SERVICED SQUARE FOOT OF GFA FOR MUNICIPALITIES WITH A
POPULATION GREATER THAN 125,000
AS AT MARCH 5, 2013

Municipality	Lower/ Single Tier	Upper Tier	Education	Total
1 Richmond Hill	\$ 10.64	\$ 37.69	\$ 0.52	\$ 48.85
2 Markham	\$ 8.72	\$ 37.69	\$ 0.52	\$ 46.93
3 Vaughan	\$ 2.15	\$ 37.69	\$ 0.52	\$ 40.36
4 Oakville (GF)	\$ 9.74	\$ 24.99	\$ 1.01	\$ 35.74
5 Burlington (GF)	\$ 8.38	\$ 24.99	\$ 1.01	\$ 34.38
6 Oakville (BB)	\$ 9.74	\$ 22.01	\$ 1.01	\$ 32.76
7 Burlington (BB)	\$ 8.38	\$ 22.01	\$ 1.01	\$ 31.40
8 Brampton	\$ 9.61	\$ 18.22	\$ 0.65	\$ 28.47
9 Mississauga	\$ 8.79	\$ 18.22	\$ 0.65	\$ 27.66
10 Oshawa	\$ 3.02	\$ 19.17	\$ -	\$ 22.19
11 Ottawa (Outside the Greenbelt)	\$ 17.41	\$ -	\$ 0.74	\$ 18.15
12 Barrie	\$ 16.77	\$ -	\$ 0.23	\$ 17.00
13 London	\$ 16.14	\$ -	\$ -	\$ 16.14
14 Kitchener	\$ 4.39	\$ 9.50	\$ 1.23	\$ 15.12
15 Toronto	\$ 13.11	\$ -	\$ 0.58	\$ 13.69
16 Cambridge	\$ 1.84	\$ 9.50	\$ 1.23	\$ 12.57
17 Hamilton	\$ 11.86	\$ -	\$ 0.22	\$ 12.08
18 St. Catharines	\$ -	\$ 11.50	\$ -	\$ 11.50
19 Greater Sudbury	\$ 10.11	\$ -	\$ -	\$ 10.11
20 Windsor	\$ 3.97	\$ -	\$ -	\$ 3.97
				\$/sq.ft.
				average \$ 23.95
				median \$ 20.17

Note: A component of the Mississauga, Richmond Hill, Markham and Vaughan charge has been converted from a per hectare charge to a hypothetical single detached unit - shown as a area-specific charge for the purpose of this chart.

TABLE 3A
UNIFORM INDUSTRIAL DEVELOPMENT CHARGES
PER FULLY SERVICED SQUARE FOOT OF GFA FOR GREATER TORONTO AREA
MUNICIPALITIES & HAMILTON
AS AT MARCH 5, 2013

Municipality	Lower/ Single Tier	Upper Tier	Education	Total
1 Markham	\$ 8.65	\$ 19.26	\$ 0.52	\$ 28.43
2 Richmond Hill	\$ 8.24	\$ 19.26	\$ 0.52	\$ 28.02
3 King	\$ 4.60	\$ 19.26	\$ 0.52	\$ 24.38
4 Oakville (GF)	\$ 9.74	\$ 12.42	\$ 1.01	\$ 23.17
5 Whitchurch-Stouffville	\$ 3.22	\$ 19.26	\$ 0.52	\$ 23.00
6 East Gwillimbury	\$ 3.16	\$ 19.26	\$ 0.52	\$ 22.94
7 Aurora	\$ 2.43	\$ 19.26	\$ 0.52	\$ 22.21
8 Vaughan	\$ 2.15	\$ 19.26	\$ 0.52	\$ 21.93
9 Newmarket	\$ 1.79	\$ 19.26	\$ 0.52	\$ 21.57
10 Oakville (BB)	\$ 9.74	\$ 9.44	\$ 1.01	\$ 20.19
11 Georgina	\$ 0.38	\$ 19.26	\$ 0.52	\$ 20.16
12 Burlington (GF)	\$ 3.54	\$ 12.42	\$ 1.01	\$ 16.97
13 Milton (GF)	\$ 3.39	\$ 12.42	\$ 1.01	\$ 16.82
14 Mississauga	\$ 7.62	\$ 8.32	\$ 0.65	\$ 16.58
15 Halton Hills (GF)	\$ 1.79	\$ 12.42	\$ 1.01	\$ 15.22
16 Burlington (BB)	\$ 3.54	\$ 9.44	\$ 1.01	\$ 13.99
17 Milton (BB)	\$ 3.39	\$ 9.44	\$ 1.01	\$ 13.84
18 Brampton	\$ 4.56	\$ 8.32	\$ 0.65	\$ 13.53
19 Caledon	\$ 4.52	\$ 8.22	\$ 0.65	\$ 13.39
20 Halton Hills (BB)	\$ 1.79	\$ 9.44	\$ 1.01	\$ 12.24
21 Brock	\$ 4.75	\$ 4.97	\$ -	\$ 9.72
22 Pickering	\$ 4.04	\$ 4.97	\$ -	\$ 9.01
23 Uxbridge	\$ 4.00	\$ 4.97	\$ -	\$ 8.97
24 Ajax	\$ 3.48	\$ 4.97	\$ -	\$ 8.45
25 Clarington	\$ 3.01	\$ 4.97	\$ 0.43	\$ 8.41
26 Hamilton	\$ 8.07	\$ -	\$ 0.22	\$ 8.29
27 Whitby	\$ 2.79	\$ 4.97	\$ -	\$ 7.76
28 Scugog	\$ 1.91	\$ 4.97	\$ -	\$ 6.88
29 Oshawa	\$ -	\$ 4.97	\$ -	\$ 4.97
30 Toronto	\$ -	\$ -	\$ 0.58	\$ 0.58
				\$/sq.ft.
				average \$ 15.39
				median \$ 14.61

Note: A component of the Mississauga, Richmond Hill, Markham and Vaughan charge has been converted from a per hectare charge to a hypothetical single detached unit - shown as a area-specific charge for the purpose of this chart.

TABLE 3B
UNIFORM INDUSTRIAL DEVELOPMENT CHARGES
PER FULLY SERVICED SQUARE FOOT OF GFA FOR MUNICIPALITIES WITH A
POPULATION GREATER THAN 125,000
AS AT MARCH 5, 2013

Municipality	Lower/ Single Tier	Upper Tier	Education	Total
1 Markham	\$ 8.65	\$ 19.26	\$ 0.52	\$ 28.43
2 Richmond Hill	\$ 8.24	\$ 19.26	\$ 0.52	\$ 28.02
3 Oakville (GF)	\$ 9.74	\$ 12.42	\$ 1.01	\$ 23.17
4 Vaughan	\$ 2.15	\$ 19.26	\$ 0.52	\$ 21.93
5 Oakville (BB)	\$ 9.74	\$ 9.44	\$ 1.01	\$ 20.19
6 Burlington (GF)	\$ 3.54	\$ 12.42	\$ 1.01	\$ 16.97
7 Mississauga	\$ 7.62	\$ 8.32	\$ 0.65	\$ 16.58
8 Kitchener	\$ 4.39	\$ 9.50	\$ 1.23	\$ 15.12
9 Burlington (BB)	\$ 3.54	\$ 9.44	\$ 1.01	\$ 13.99
10 Brampton	\$ 4.56	\$ 8.32	\$ 0.65	\$ 13.53
11 Cambridge	\$ 1.84	\$ 9.50	\$ 1.23	\$ 12.57
12 Barrie	\$ 11.08	\$ -	\$ 0.23	\$ 11.31
13 Ottawa (Outside the Greenbelt)	\$ 8.01	\$ -	\$ 0.74	\$ 8.75
14 Hamilton	\$ 8.07	\$ -	\$ 0.22	\$ 8.29
15 St. Catharines	\$ -	\$ 5.16	\$ -	\$ 5.16
16 Oshawa	\$ -	\$ 4.97	\$ -	\$ 4.97
17 Greater Sudbury	\$ 4.34	\$ -	\$ -	\$ 4.34
18 Toronto	\$ -	\$ -	\$ 0.58	\$ 0.58
19 London	\$ -	\$ -	\$ -	\$ -
20 Windsor	\$ -	\$ -	\$ -	\$ -
				\$/sq. ft.
				average \$ 12.70
				median \$ 13.05

Note: A component of the Mississauga, Richmond Hill, Markham and Vaughan charge has been converted from a per hectare charge to a hypothetical single detached unit - shown as a area-specific charge for the purpose of this chart.

APPENDIX K

PROPOSED DEVELOPMENT CHARGE BY-LAW

BY-LAW NUMBER •
OF
THE REGIONAL MUNICIPALITY OF DURHAM

being a by-law regarding development charges

WHEREAS section 2(1) of the *Development Charges Act, 1997*, provides that council of a municipality may by by-law impose development charges against land to pay for increased capital costs required because of increased needs for services arising from development of the area to which the by-law applies if the development requires one or more of the approvals identified in section 2(2) of the *Development Charges Act, 1997*;

AND WHEREAS a development charge background study has been completed in support of the imposition of development charges;

AND WHEREAS the Council of The Regional Municipality of Durham has given notice and held a public meeting on April 3, 2013, in accordance with section 12(1) of the *Development Charges Act, 1997*;

AND WHEREAS the Council of The Regional Municipality of Durham has permitted any person who attended the public meeting to make representations in respect of the proposed development charges;

NOW THEREFORE THE COUNCIL OF THE REGIONAL MUNICIPALITY OF DURHAM HEREBY ENACTS AS FOLLOWS:

PART I

INTERPRETATION

Definitions

1. In this By-law,
 - (a) “Act” means the *Development Charges Act, 1997*, or a successor statute;
 - (b) “agricultural use” means lands, buildings or structures, excluding any portion thereof used as a dwelling unit or for a commercial use, used or designed or intended for use for the purpose of a *bona fide* farming operation including, but not limited to, animal husbandry, dairying, livestock, fallow, field crops, removal of sod, forestry, fruit farming, greenhouses, horticulture, market gardening, pasturage, poultry keeping, and equestrian facilities;

- (c) “apartment building” means a residential building, or the residential portion of a mixed-use building, other than a triplex, semi-detached duplex, semi-detached triplex, townhouse or stacked townhouse, consisting of more than 3 dwelling units, which dwelling units have a common entrance to grade;
- (d) “apartment” means a dwelling unit in an apartment building;
- (e) “area municipality” means a lower-tier municipality that forms part of the Region;
- (f) “bedroom” means any room used, or designed or intended for use, as sleeping quarters;
- (g) “commercial accessory building or structure” means a building or structure that complies with all of the following criteria:
 - (i) is not essential to,
 - (ii) is naturally and normally incidental to or subordinate in purpose to,
 - (iii) is exclusively devoted to,
 - (iv) is detached from, and
 - (v) is situated on the same property as,

a principal commercial use. Commercial accessory building or structure shall include, but shall not be limited to, the separate storage of refuse or the storage of mechanical equipment related to the operation or maintenance of the principal use, building, structure or site. Commercial accessory building or structure shall not include any building or structure, whether in whole or in part, falling within the definition of “commercial use” in this by-law.”
- (h) “commercial use” means land, buildings or structures used, or designed or intended for use for either or both of office and retail uses as defined in this by-law;
- (i) “Council” means the Council of the Regional Municipality of Durham;
- (j) “development” includes redevelopment;
- (k) “development charges” means charges imposed pursuant to this By-law in accordance with the Act, except in sections 20 and 21 where “development charges” means charges with respect to water supply services, sanitary sewer services and regional road services;

- (l) “duplex” means a building comprising, by horizontal division, two dwelling units, each of which has a separate entrance to grade;
- (m) “dwelling unit” means a room or suite of rooms used, or designed or intended for use by one person or persons living together, in which culinary and sanitary facilities are provided for the exclusive use of such person or persons;
- (n) “existing industrial building” means a building used for or in connection with,
 - (i) manufacturing, producing, processing, storing or distributing something,
 - (ii) research or development in connection with manufacturing, producing or processing something,
 - (iii) retail sales by a manufacturer, producer or processor of something they manufactured, produced or processed, if the retail sales are at the site where the manufacturing, production or processing takes place,
 - (iv) office or administrative purposes, if they are,
 - (1) carried out with respect to manufacturing, producing, processing, storage or distributing of something, and
 - (2) in or attached to the building or structure used for that manufacturing, producing, processing, storage or distribution;
- (o) “farm building” means a building or structure used, or designed or intended for use in connection with a bona fide agricultural use and includes barns, silos, and similar structures but excludes a building or structure used, or designed or intended for use for residential or commercial uses;
- (p) “garden suite” means a one-unit detached, temporary residential structure containing bathroom and kitchen facilities that is ancillary to an existing residential structure and that is designed to be portable;
- (q) “gross floor area” means (except for the purposes of sections 9 and 17), in the case of a non-residential building or structure or the non-residential portion of a mixed-use building or structure, the aggregate of the areas of each floor, whether above or below grade, measured between the exterior faces of the exterior walls of the building or structure or from the centre line of a common wall separating a non-residential and a residential use, and, for the purposes of this definition, the non-residential portion of a

mixed-use building is deemed to include one-half of any area common to the residential and non-residential portions of such mixed-use building or structure;

- (r) “industrial use” means lands, buildings or structures used or designed or intended for use for manufacturing, producing, processing, fabricating or assembly of raw goods, research or development in connection therewith, and includes office uses, warehousing or bulk storage of goods and the sale of commodities to the general public where such uses are accessory to an industrial use, but does not include the sale of commodities to the general public through a warehouse club or similar use;
- (s) “institutional use” means lands, buildings or structures used or designed or intended for use by an organized body, society or religious group for promoting a public or non-profit purpose, and includes office uses where such uses are accessory to an institutional use;
- (t) “local board” means a local board as defined in the *Municipal Affairs Act*, other than a board defined in subsection 1(1) of the *Education Act*;
- (u) “medium density multiples” includes plexes, townhouses, stacked townhouses and all other residential uses that are not included in the definition of “apartment building”, “apartment”, “single detached”, “single detached dwelling” or “semi-detached dwelling”;
- (v) “mixed-use” means land, buildings or structures used, or designed or intended for use, for a combination of at least two of commercial, industrial, institutional or residential uses;
- (w) “mobile home” means any dwelling that is designed to be made mobile, and constructed or manufactured to provide a permanent or temporary residence for one or more persons, but does not include a travel trailer or tent trailer or trailer otherwise designed;
- (x) “non-residential use” means lands, buildings or structures or portions thereof used, or designed or intended for use for other than residential use, and includes commercial, industrial and institutional uses;
- (y) “office use” means lands, buildings or structures used or designed or intended for use for the practice of a profession, the carrying on of a business or occupation and, for greater certainty, but without in any way limiting the generality of the foregoing, shall include but not be limited to the office of a physician, lawyer, dentist, architect, engineer, accountant, real estate or insurance agency, insurance company, veterinarian, surveyor, appraiser, financial institution, consumer loan company, employment agency, advertising agency, consulting firm, business service, investment company, security broker, mortgage company, medical clinic, builder, land developer;

- (z) “place of worship” means a building or structure or part thereof that is used primarily for worship and is exempt from taxation as a place of worship under the *Assessment Act*;
- (aa) “plex” means a duplex, a semi-detached duplex, a triplex or a semi-detached triplex;
- (bb) “Region” means the Regional Municipality of Durham;
- (cc) “region-wide charges” means the development charges imposed in regard to the region-wide services;
- (dd) “region-wide services” means services in regard to regional roads, regional police, emergency medical services, health and social services, long term care, and development related studies;
- (ee) “residential use” means lands, buildings or structures used, or designed or intended for use as a home or residence of one or more individuals, and shall include, but is not limited to, a single detached dwelling, a semi-detached dwelling, a townhouse, a plex, a stacked townhouse, an apartment building, a mobile home, a retirement residence and a residential dwelling unit accessory to a non-residential use;
- (ff) “retail use” means lands, buildings or structures used or designed or intended for use for the sale or rental or offer for sale or rental of goods or services for consumption or use and, for greater certainty, but without in any way limiting the generality of the foregoing, shall include, but not be limited to, food stores, pharmacies, clothing stores, furniture stores, department stores, sporting goods stores, appliance stores, garden centres, automotive dealers, automotive repair shops, gasoline service stations, government owned retail facilities, private daycare, private schools, private lodging, private recreational facilities, sports clubs, golf courses, skiing facilities, race tracks, gambling operations, medical clinics, funeral homes, motels, hotels, rooming houses, restaurants, theatres, facilities for motion picture, audio and video production and distribution, sound recording services, self-storage mini warehouses and secure document storage;
- (gg) “retirement residence” means a residential building or the residential portion of a mixed-use building which provides accommodation for persons of retirement age, where common facilities for the preparation and consumption of food are provided for the residents of the building, and where each unit or living accommodation has separate sanitary facilities, less than full culinary facilities and a separate entrance from a common hall;
- (hh) “retirement residence unit” means a unit within a retirement residence;

- (ii) “rooming house” means a detached building or structure which comprises rooms that are rented for lodging and where the rooms do not have both culinary and sanitary facilities for the exclusive use of individual occupants;
- (jj) “Seaton Community” means the lands shown on Schedule “F”, which may generally be described as being bounded: to the south by the Canadian Pacific Railway right-of-way; to the west by West Duffins Creek; to the north by Provincial Highway No. 7; and to the east by Sideline 16 and the boundary between the City of Pickering and the Town of Ajax, and excludes the lands comprising the Hamlet communities of Whitevale, Green River and Brougham;
- (kk) “semi-detached duplex” means one of a pair of attached duplexes, each duplex divided vertically from the other by a party wall;
- (ll) “semi-detached dwelling” means a building divided vertically into and comprising 2 dwelling units;
- (mm) “semi-detached triplex” means one of a pair of triplexes divided vertically one from the other by a party wall;
- (nn) “serviced” means the particular service is connected to or available to be connected to the lands, buildings or structures, or, as a result of the development, will be connected to or will be available to be connected to the lands, buildings or structures, or the lands to be developed are in an area designated for the particular service in the Region’s Official Plan;
- (oo) “services” means the services designated in section 7 of this by-law;
- (pp) “single detached dwelling” and “single detached” means a building comprising 1 dwelling unit;
- (qq) “stacked townhouse” means a building, other than a plex, townhouse or apartment building, containing at least 3 dwelling units; each dwelling unit separated from the other vertically and/or horizontally and each dwelling unit having a separate entrance to grade;
- (rr) “townhouse” means a building, other than a plex, stacked townhouse or apartment building, containing at least 3 dwelling units, each dwelling unit separated vertically from the other by a party wall and each dwelling unit having a separate entrance to grade;
- (ss) “triplex” means a building comprising 3 dwelling units, each of which has an separate entrance to grade.

2. In this by-law where reference is made to a statute or a section of a statute such reference is deemed to be a reference to any successor statute or section.

PART II

APPLICATION OF BY-LAW — RULES

Circumstances Where Development Charges are Payable

3. Development charges shall be payable in the amounts set out in sections 8, 12, 13 and 14 of this by-law where:
 - (a) the lands are located in the area described in subsection 4(1); and
 - (b) the development of the lands requires any of the approvals set out in subsection 5(1).

Area to Which By-law Applies

4.
 - (1) Subject to subsections 4(2) and 4(3), this by-law applies to all lands in the Region.
 - (2) This by-law shall not apply to lands that are owned by and used for the purposes of:
 - (a) the Region or a local board thereof;
 - (b) a board as defined in subsection 1(1) of the *Education Act*; and
 - (c) an area municipality or a local board thereof in the Region.
 - (3) Development charges imposed under this by-law in regard to water supply and sanitary sewerage services do not apply to the development of lands located within the Seaton Community. For greater certainty, the balance of the development charges imposed under this by-law apply to the development of lands located within the Seaton Community.

Approvals for Development

5.
 - (1) Development charges shall be imposed upon all lands, buildings or structures that are developed for residential or non-residential uses if the development requires,
 - (a) the passing of a zoning by-law or of an amendment thereto under section 34 of the *Planning Act*;
 - (b) the approval of a minor variance under section 45 of the *Planning Act*;

- (c) a conveyance of land to which a by-law passed under subsection 50(7) of the *Planning Act* applies;
 - (d) the approval of a plan of subdivision under section 51 of the *Planning Act*;
 - (e) a consent under section 53 of the *Planning Act*;
 - (f) the approval of a description under section 50 of the *Condominium Act*; or
 - (g) the issuing of a permit under the *Building Code Act, 1992* in relation to a building or structure.
- (2) Council has determined that the development of the land to which this by-law applies increases the need for the services designated in section 7.
6. (1) No more than one development charge for each service designated in section 7 shall be imposed on land to which this by-law applies even though two or more of the actions described in subsection 5(1) are required before the land can be developed.
- (2) Notwithstanding subsection 6(1), if two or more of the actions described in subsection 5(1) occur at different times, additional development charges shall be imposed, if the subsequent action has the effect of increasing the need for services.

Designation of Services

7. (1) The categories of services for which development charges are imposed under this by-law are as follows:
- (a) water supply;
 - (b) sanitary sewerage;
 - (c) regional roads;
 - (d) long term care;
 - (e) regional police;
 - (f) emergency medical services;
 - (g) health and social services; and
 - (h) development related studies.

- (2) The components of the services designated in subsection 7(1) are described on Schedule "A".

Amount of Charge

Residential

8. The development charges described in Schedule "B" to this by-law shall be imposed upon residential uses of lands, buildings or structures, including a dwelling unit accessory to a non-residential use and, in the case of a mixed use building or structure, upon the residential uses in the mixed use building or structure, according to the type of residential unit. The development charges payable shall comprise the following:
- (a) Region-wide Charges
 - (i) a development charge with respect to each of the region-wide services according to the type of residential use;
 - (b) Regional Water Supply and Sanitary Sewer Charges
 - (i) where the lands, buildings or structures are serviced by regional water supply services, the development charge with respect to water supply services according to the type of residential use;
 - (ii) where the lands, buildings or structures are serviced by regional sanitary sewer services, the development charge with respect to sanitary sewer services according to the type of residential use.

Exemptions

9. (1) In this section,
- (a) "gross floor area" means the total floor area, measured between the outside of exterior walls or between the outside of exterior walls and the centre line of party walls dividing the building from another building, of all floors above the average level of finished ground adjoining the building at its exterior walls;
 - (b) "other residential building" means a residential building not in another class of residential building described in this subsection;
 - (c) "semi-detached or row dwelling" means a residential building consisting of one dwelling unit having one or two vertical walls, but no other parts, attached to another structure;
 - (d) "single detached dwelling" means a residential building consisting of one dwelling unit and not attached to another structure.

- (2) Subject to subsections 9(3) and 9(4), development charges shall not be imposed in respect to:
 - (a) the issuance of a building permit not resulting in the creation of an additional dwelling unit;
 - (b) the enlargement of an existing dwelling unit;
 - (c) the creation of one or two additional dwelling units in an existing single detached dwelling;
 - (d) the creation of one additional dwelling unit in a semi-detached dwelling, a row dwelling, or any other residential building.
- (3) Notwithstanding subsection 9(2)(c), development charges shall be imposed in accordance with section 8 if the total gross floor area of the additional one or two dwelling units in the existing single detached dwelling exceeds the gross floor area of the existing dwelling unit.
- (4) Notwithstanding subsection 9(2)(d), development charges shall be imposed in accordance with section 8 if the additional dwelling unit has a gross floor area greater than:
 - (a) in the case of a semi-detached or row dwelling, the gross floor area of the existing dwelling unit; and
 - (b) in the case of any other residential building, the gross floor area of the smallest dwelling unit already contained in the residential building.

Garden Suite

- 10. (1) The development charges imposed upon a garden suite under section 8 shall be payable at the rate applicable to a one-bedroom apartment.
- (2) The development charges paid in regard to a garden suite shall be refunded in full to the then current owner thereof, upon request, if the garden suite is demolished or removed within ten years of the issuance of the building permit relating thereto.
- (3) The onus is on the applicant to produce evidence to the satisfaction of the Region, acting reasonably, which establishes that the applicant is entitled to the refund claimed under this section.

Mobile Home

11. (1) The development charges imposed upon a mobile home under section 8 shall be payable at the rate applicable to an apartment of two bedrooms or larger.
- (2) The development charges paid in regard to a mobile home shall be refunded in full to the then current owner thereof, upon request, if the mobile home is removed within ten years of the issuance of the building permit relating thereto.
- (3) The onus is on the applicant to produce evidence to the satisfaction of the Region, acting reasonably, which establishes that the applicant is entitled to the refund claimed under this section.

Retirement Residence Unit

- 11.1 (1) The development charges imposed on a retirement residence unit under section 8 shall be payable at the rate applicable to an apartment of one bedroom and smaller.

Non-Residential

Commercial

12. (1) The development charges described in Schedule "C" to this by-law shall be imposed upon commercial uses of lands, buildings or structures, and, in the case of a mixed use building or structure, upon the commercial uses in the mixed use building or structure. The development charges payable shall comprise the following:
 - (a) Regional Road Charges
 - (i) a development charge with respect to regional road services according to the gross floor area of the commercial use;
 - (b) Regional Water Supply and Sanitary Sewer Charges
 - (i) where the lands, buildings or structures are serviced by regional water supply services, the development charge with respect to water supply services according to the gross floor area of the commercial use;
 - (ii) where the lands, buildings or structures are serviced by regional sanitary sewer services, the development charge with respect to sanitary sewer services according to the gross floor area of the commercial use.

- (2) Subject to subsections 12(3) and 12(4) of this by-law, the development charges imposed on commercial accessory buildings or structures shall be payable at the rate applicable to industrial development under Schedule "E".
- (3) The application of development charges at the industrial rate in regard to commercial accessory buildings or structures shall be limited to an aggregate of 7,000 square feet of gross floor area of all such buildings or structures on the same site.
- (4) Development charges at the rate applicable to commercial development under Schedule "C" shall be imposed upon the gross floor area of commercial accessory buildings or structures in excess of 7,000 square feet on the same site.

Institutional

- 13. The development charges described in Schedule "D" to this by-law shall be imposed upon institutional uses of lands, buildings or structures, and, in the case of a mixed use building or structure, upon the institutional uses in the mixed use building or structure. The development charges payable shall comprise the following:
 - (a) Regional Road Charges
 - (i) a development charge with respect to regional road services according to the gross floor area of the institutional use;
 - (b) Regional Water Supply and Sanitary Sewer Charges
 - (i) where the lands, buildings or structures are serviced by regional water supply services, the development charge with respect to water supply services according to the gross floor area of the institutional use;
 - (ii) where the lands, buildings or structures are serviced by regional sanitary sewer services, the development charge with respect to sanitary sewer services according to the gross floor area of the institutional use.

Industrial

- 14. The development charges described in Schedule "E" to this by-law shall be imposed upon industrial uses of lands, buildings or structures, and, in the case of a mixed use building or structure, upon the industrial uses in the mixed use building or structure. The development charges payable shall comprise the following:

- (a) Regional Road Charges
 - (i) a development charge with respect to regional road services according to the gross floor area of the industrial use;
- (b) Regional Water Supply and Sanitary Sewer Charges
 - (i) where the lands, buildings or structures are serviced by regional water supply services, the development charge with respect to water supply services according to the gross floor area of the industrial use;
 - (ii) where the lands, buildings or structures are serviced by regional sanitary sewer services, the development charge with respect to sanitary sewer services according to the gross floor area of the industrial use.

Phasing

- 15. (1) The development charges imposed under section 14 shall be phased and shall be payable in the amounts applicable at the date of payment as set out in the applicable column of Schedule "E". For greater certainty, the columns contained in Schedule "E" apply to the following periods:
 - (i) **Column I - June 1, 2013 to June 30, 2014**
 - (ii) **Column II - July 1, 2014 to June 30, 2015**
 - (iii) **Column III - July 1, 2015 to June 30, 2016**
 - (iv) **Column IV - July 1, 2016 to June 30, 2017**
- (2) The development charges described in Columns II, III, and IV of Schedule "E" shall be adjusted annually in accordance with section 24 of this by-law to the date of payment.

Exemptions

- 16. (1) Notwithstanding sections 12, 13 and 14 of this by-law, development charges shall not be imposed upon non-residential development if the development does not have the effect of creating gross floor area of non-residential development or of increasing existing gross floor area of non-residential development.
- (2) Notwithstanding the provisions of this by-law, development charges shall not be imposed in regard to:

- (a) agricultural uses and farm buildings;
- (b) places of worship;
- (c) public hospitals receiving aid under the *Public Hospitals Act*, R.S.O. 1990, c. P.40, excluding such buildings or structures or parts thereof used, designed or intended for use primarily for or in connection with a commercial purpose;
- (d) any part of a building or structure used for the parking or loading of motor vehicles;
- (e) free standing roof-like structures and canopies that do not have exterior walls.

Exemption for Enlargement of Existing Industrial Building

17. (1) Despite any other provisions of this by-law, if a development includes the enlargement of the gross floor area of an existing industrial building, the amount of the development charge that is payable in respect of the enlargement shall be calculated as follows:
- (a) if the gross floor area is enlarged by fifty percent or less, the amount of the development charge in respect of the enlargement is zero;
 - (b) if the gross floor area is enlarged by more than fifty percent the amount of the development charge in respect of the enlargement is the amount of the development charge that would otherwise be payable multiplied by the fraction determined as follows:
 - (i) determine the amount by which the enlargement exceeds fifty percent of the gross floor area before the enlargement; and
 - (ii) divide the amount determined under paragraph (i) by the amount of the enlargement.
- (2) For the purposes of subsection 17(1) the following provisions apply:
- (a) the gross floor area of an existing industrial building shall be calculated as it existed prior to the first enlargement of such building for which an exemption under subsection 17(1) was sought;
 - (b) the enlargement of the gross floor area of the existing industrial building must be attached to such building;

- (c) the enlargement must not be attached to the existing industrial building by means only of a tunnel, bridge, passageway, shared below grade connection, foundation, footing or parking facility, but must share a common wall with such building.
- (3) In this section “gross floor area” means the total floor area, measured between the outside of exterior walls or between the outside of exterior walls and the centre line of party walls dividing the building from another building, of all floors above the average level of finished ground adjoining the building at its exterior walls.

Reduction of Development Charges For Redevelopment

18. (1) Despite any other provision of this by-law, where, as a result of the redevelopment of land, a building or structure existing on the land within ten years prior to the date of payment of development charges in regard to such redevelopment was, or is to be demolished, in whole or in part, or converted from one principal use to another, in order to facilitate the redevelopment, the development charges otherwise payable with respect to such redevelopment shall be reduced by the following amounts:
- (a) in the case of a residential building or structure, the amount of the reduction in the applicable development charges will equal the applicable development charges under section 8 of this by-law that would have been chargeable on the type of dwelling units demolished or to be demolished or converted to another use; and
 - (b) in the case of a non-residential building or structure, the amount of the reduction in the applicable development charges will equal the applicable development charges under sections 12, 13 or 14 of this by-law that would have been chargeable on the gross floor area of the non-residential building or structure that was demolished or to be demolished or converted to another use; and
 - (c) in the case of a mixed-use building or structure, the amount of the reduction in the applicable development charges will equal the applicable development charges under sections 8, 12, 13 or 14 of this by-law that would have been chargeable either upon the type of dwelling units or the gross floor area of non-residential use in the mixed-use building or structure that is being demolished or to be demolished or converted to another use;
- provided that such amounts shall not exceed, in total, the amount of the development charges otherwise payable with respect to the redevelopment.
- (2) The ten year period referred to in subsection 18(1) of this by-law shall be calculated from the date of the issuance of the first demolition permit.

- (3) Development charges shall not be reduced under this section where the building or structure that is to be demolished or has been demolished or converted from one principal use to another was, or would have been, exempt from development charges under this by-law.
- (4) The onus is on the applicant to produce evidence to the satisfaction of the Region, acting reasonably, which establishes that the applicant is entitled to the reduction in the payment of development charges claimed under this section.

PART III

ADMINISTRATION

Timing of Payment of Development Charges

- 19. Development charges, adjusted in accordance with section 24 of this by-law to the date of payment, are payable in full on the date on which a building permit is issued with respect to each dwelling unit, building or structure.
- 20.
 - (1) Notwithstanding section 19, development charges, adjusted in accordance with section 24 to the date of payment, with respect to water supply services, sanitary sewer services and regional road services shall be payable, with respect to an approval of a residential plan of subdivision under section 51 of the Planning Act, immediately upon the owner entering into the subdivision agreement with the Region, on the basis of the proposed number and type of dwelling units in the plan of subdivision.
 - (2) Notwithstanding section 20(1), development charges applicable to a high density or condominium block in a residential plan of subdivision are payable in accordance with section 19.
 - (3) Notwithstanding subsection 20(1), where an owner elects to enter into an agreement with the Region pursuant to section 27 of the Act, development charges with respect to water supply services, sanitary sewer services and regional road services may be payable as follows:
 - (a) upon the execution of the subdivision agreement, 50% of the development charges otherwise payable under subsection 20(1), adjusted in accordance with section 24 to the date of payment; and
 - (b) on the first anniversary date of the execution of the subdivision agreement, 50% of the development charges otherwise payable under subsection 20(1), adjusted in accordance with section 24 to the date of payment;

provided, however, in regard to any lot on the plan of subdivision, any balance of the development charges owing during the one year period

following execution of the subdivision agreement shall become payable, after adjustment in accordance with section 24 to the date of payment, on the date a building permit is issued in regard to such lot.

- (4) The balance of the development charges outstanding at any time that are payable in accordance with subsection 20(3) shall be secured by a letter of credit, in a form acceptable to the Region, in an amount which is equal to 55% of the development charges as determined under section 8. The payment of the outstanding balance under subsection 20(3) may be made by way of a draw by the Region on the letter of credit.
 - (5) Notwithstanding section 19 and subsection 20(3), Council, from time to time, and at any time, may enter into agreements in accordance with section 27 of the Act which provide for all or any part of a development charge to be paid before or after it would otherwise be payable.
- 21.
- (1) If, at the time of issuance of a building permit or permits in regard to a lot on a plan of subdivision for which payments have been made pursuant to subsection 20(1) or 20(3), the type of dwelling unit for which building permits are being issued is different than that used for the calculation and payment under subsection 20(1) or 20(3), and there has been no change in the zoning affecting such lot, and the development charges for the type of dwelling unit for which building permits are being issued were greater at the time that payments were made pursuant to subsection 20(1) or 20(3) than for the type of dwelling unit used to calculate the payment under subsection 20(1) or 20(3), an additional payment to the Region is required, which payment, in regard to such different unit types, shall be the difference between the development charges in respect to the type of dwelling unit for which building permits are being issued, calculated as at the date of issuance of the building permit or permits, and the development charges previously collected in regard thereto, adjusted in accordance with section 24 of this by-law to the date of issuance of the building permit or permits.
 - (2) If, at the time of issuance of a building permit or permits in regard to a lot on a plan of subdivision for which payments have been made pursuant to subsection 20(1) or 20(3), the total number of dwelling units of a particular type for which building permits have been or are being issued is greater, on a cumulative basis, than that used for the calculation and payment under subsection 20(1) or 20(3), and there has been no change in the zoning affecting such lot, an additional payment to the Region is required, which payment shall be calculated on the basis of the number of additional dwelling units at the rate prevailing as at the date of issuance of the building permit or permits for such dwelling units.
 - (3) If, at the time of issuance of a building permit or permits in regard to a lot on a plan of subdivision for which payments have been made pursuant to

subsection 20(1) or 20(3), the type of dwelling unit for which building permits are being issued is different than that used for the calculation and payment under subsection 20(1) or 20(3), and there has been no change in the zoning affecting such lot, and the development charges for the type of dwelling unit for which building permits are being issued were less at the time that payments were made pursuant to subsection 20(1) or 20(3) than for the type of dwelling unit used to calculate the payment under subsection 20(1) or 20(3), a refund in regard to such different unit types shall be paid by the Region, which refund shall be the difference between the development charges previously collected, adjusted in accordance with section 24 of this by-law to the date of issuance of the building permit or permits, and the development charges in respect to the type of dwelling unit for which building permits are being issued, calculated as at the date of issuance of the building permit or permits.

- (4) If, at the time of issuance of a building permit or permits in regard to a lot on a plan of subdivision for which payments have been made pursuant to subsection 20(1) or 20(3), the total number of dwelling units of a particular type for which building permits have been or are being issued is less, on a cumulative basis, than that used for the calculation and payment under subsection 20(1) or 20(3), and there has been no change in the zoning affecting such lot, a refund shall be paid by the Region, which refund shall be calculated on the basis of the number of fewer dwelling units at the rate prevailing as at the date of issuance of the building permit or permits.
- (5) Notwithstanding subsections 21(3) and 21(4), a refund shall not exceed the amount of the development charges paid under section 20.

Payment by Services

- 22. Notwithstanding the payments required under sections 19 and 20, the Region may, by agreement pursuant to section 38 of the Act, permit an owner to provide services in lieu of the payment of all or any portion of a development charge. The Region shall give the owner who performed the work a credit towards the development charge in accordance with the agreement subject to the requirements of the Act.

Front-Ending Agreements

- 23. Council, from time to time, and at any time, may enter into front-ending agreements in accordance with the Act.

Indexing

- 24. Development charges imposed pursuant to this by-law shall be adjusted annually, without amendment to this by-law, as of the 1st day of July, 2014, and on each successive July 1st date in accordance with the Statistics Canada

Quarterly, *Construction Price Statistics*, catalogue number 62-207, for the most recently available annual period ending March 31.

Schedules

25. The following schedules to this by-law form an integral part thereof:

- | | | |
|--------------|---|--|
| Schedule "A" | - | Components of Services Designated in section 7 |
| Schedule "B" | - | Residential Development Charges |
| Schedule "C" | - | Commercial Development Charges |
| Schedule "D" | - | Institutional Development Charges |
| Schedule "E" | | Industrial Development Charges |
| Schedule "F" | - | Map of Seaton Community |

Date By-law in Force

26. This by-law shall come into force on June 1, 2013.

Date By-law Expires

27. This by-law will expire five years from the date it comes into force, unless it is repealed at an earlier date by a subsequent by-law.

Repeal

28. By-law No. 44-2008 is hereby repealed effective on the date this by-law comes into force.

Registration

29. A certified copy of this by-law may be registered on title to any land to which this by-law applies.

Severability

30. In the event any provision, or part thereof, of this by-law is found by a court of competent jurisdiction to be *ultra vires*, such provision, or part thereof, shall be deemed to be severed, and the remaining portion of such provision and all other provisions of this by-law shall remain in full force and effect.

Short Title

31. This By-law may be cited as the Regional Municipality of Durham Development Charges By-law, 2013

BY-LAW read and passed this 24th day of April, 2013.

R. Anderson, Regional Chair

D. Bowen, Acting Regional Clerk

SCHEDULE “A”

DESIGNATED REGIONAL SERVICES AND SERVICE COMPONENTS THEREUNDER

<u>CATEGORY OF REGIONAL SERVICES</u>	<u>SERVICE COMPONENTS</u>
1. Regional Road	• Regional Road Construction/Improvements/Urbanization • Improvements to Highway Interchanges/Grade Separations • Intersection and Corridor Improvements • Traffic Signals and Systems • Property Acquisition • Maintenance Facilities • Capital Equipment • Landscaping • Studies • Environmental Assessment
2. Regional Police	• Costs to Acquire Land or an Interest in Land, Including a Leasehold Interest • Costs to Improve Land • Costs to Acquire, Lease, Construct or Improve Buildings and Structures • Costs to Acquire, Lease, Construct or Improve Facilities • Vehicles and Equipment
3. Long Term Care	• Costs to Acquire Land or an Interest in Land, Including a Leasehold Interest • Costs to Improve Land • Costs to Acquire, Lease, Construct or Improve Buildings and Structures • Costs to Acquire, Lease, Construct or Improve Facilities
4. Water Supply	• Watermains • Pumping Stations • Reservoirs • Feeder mains • Water Supply Plants and Municipal Wells • Capital Equipment • Studies • Environmental Assessment • Water Use Efficiency Strategy • Well Interference

- | | | |
|----|-----------------------------|---|
| 5. | Sanitary Sewerage | <ul style="list-style-type: none">• Sewage Pumping Stations and Force mains• Trunk and Sanitary Sewers• Water Pollution Control Plants• Sludge Storage and Disposal Facilities• Capital Equipment• Studies• Environmental Assessment• Water Use Efficiency |
| 6. | Emergency Medical Services | <ul style="list-style-type: none">• Land Ambulances and Equipment• Stations and Land |
| 7. | Health and Social Services | <ul style="list-style-type: none">• Costs to Acquire Land and Buildings |
| 8. | Development Related Studies | <ul style="list-style-type: none">• Studies |

SCHEDULE “B”

**RESIDENTIAL DEVELOPMENT CHARGES PER DWELLING UNIT
EFFECTIVE JUNE 1, 2013 - \$ PER DWELLING TYPE**

SERVICE CATEGORY	SINGLE DETACHED & SEMI- DETACHED \$	MEDIUM DENSITY MULTIPLES \$	TWO BEDROOM APARTMENT & LARGER \$	ONE BEDROOM APARTMENT & SMALLER \$
<u>Region-Wide Charges</u>				
Regional Roads	7,908	6,354	4,594	2,994
Regional Police	603	485	350	228
Long-Term Care	29	23	17	11
Emergency Medical Services	138	111	80	52
Health & Social Services	93	75	54	35
Development Related Studies	24	19	14	9
Subtotal	8,795	7,067	5,109	3,329
<u>Regional Water Supply & Sanitary Sewer Charges</u>				
Water Supply	7,246	5,822	4,209	2,743
Sanitary Sewerage	8,365	6,721	4,859	3,167
Subtotal	15,611	12,543	9,068	5,910
Total of All Charges	<u>24,406</u>	<u>19,610</u>	<u>14,177</u>	<u>9,239</u>

NOTE: The development charges described above shall be adjusted annually on July 1 pursuant to Section 24 of this By-law.

SCHEDULE "C"

**COMMERCIAL DEVELOPMENT CHARGES EFFECTIVE JUNE 1, 2013
\$ PER SQUARE FOOT OF GROSS FLOOR AREA**

SERVICE CATEGORY	COMMERCIAL DEVELOPMENT CHARGES
Water Supply	1.87
Sanitary Sewerage	5.22
Regional Roads	5.56
Total of All Charges	<u>12.65</u>

NOTE: The development charges described above shall be adjusted annually on July 1 pursuant to section 24 of this By-law.

SCHEDULE "D"

**INSTITUTIONAL DEVELOPMENT CHARGES EFFECTIVE JUNE 1, 2013
\$ PER SQUARE FOOT OF GROSS FLOOR AREA**

SERVICE CATEGORY	INSTITUTIONAL DEVELOPMENT CHARGES
Water Supply	0.70
Sanitary Sewerage	1.45
Regional Roads	5.87
Total of All Charges	<u>8.02</u>

NOTE: The development charges described above shall be adjusted annually on July 1 pursuant to section 24 of this By-law.

SCHEDULE “E”

**INDUSTRIAL DEVELOPMENT CHARGES EFFECTIVE JUNE 1, 2013
\$ PER SQUARE FOOT OF GROSS FLOOR AREA**

SERVICE CATEGORY	COLUMN I June 1, 2013 to June 30, 2014	COLUMN II July 1, 2014 to June 30, 2015	COLUMN III July 1, 2015 to June 30, 2016	COLUMN IV July 1, 2016 to June 30, 2017
Water Supply	1.10	1.44	1.77	2.21
Sanitary Sewerage	2.32	3.02	3.71	4.64
Regional Roads	1.67	2.16	2.66	3.33
Total of All Charges	<u>5.09</u>	<u>6.62</u>	<u>8.14</u>	<u>10.18</u>

NOTE: The development charges described in Columns II, III and IV above shall be adjusted annually on July 1 pursuant to section 24 of this By-law.

SCHEDULE "F"
SEATON COMMUNITY

