

CITY OF OTTAWA 2014 DEVELOPMENT CHARGES BACKGROUND STUDY

City of Ottawa in consultation with
Watson & Associates Economists Ltd.

APRIL 28, 2014

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

1. Purpose of this Background Study

- 1.1 This Background Study has been prepared pursuant to Section 10 of the *Development Charges Act, 1997* (DCA) and, together with the proposed by-law, is being made available to the public, as required by Section 12 of the Act, more than two weeks prior to the public meeting of Council, which is to be held May 13, 2014.
- 1.2 The charges calculated represent those which can be recovered under the DCA, 1997, based on the City's capital spending plans and other assumptions which are responsive to the requirements of the DCA. A decision is required by Council, after receiving input at the public meeting, as to the magnitude of the charge it wishes to establish, for residential, commercial, industrial and/or institutional development. Property tax, user rate or other funding will be required to finance any potentially DC-recoverable capital costs which are not included in the charge which is adopted.
- 1.3 Other decisions involve finalizing development charge policy and the by-law, including exemptions, phasing in, indexing, applicability to the redevelopment of land, and the schedule of charges by type of land use. It is the purpose of the public meeting to obtain additional input on these matters.

2. The 2014 Development Charge Calculation

- 2.1 Table ES-1 presents the proposed schedule of residential charges, based on the costing and related assumptions contained in Appendices B & C, in comparison with the City's development charges per single detached unit that were in effect as of August 1, 2013. The calculated charges are reflected in the proposed by-law contained in Appendix H.
- 2.2 Table ES-1A sets out the charges applicable to three residential areas within the City (Figure ES-1):
- Inside the Greenbelt;
 - Outside the Greenbelt¹;
 - Rural (Serviced)².

¹ For comparison purposes the Outside the Greenbelt charge includes all City-wide and Outside the Greenbelt services plus the Parks Development (District Parks) charge (i.e. \$32,875 + \$227 = \$33,102). A separate area-specific charge for Parks Development (District Parks) would be imposed within the defined Millennium Park Area in lieu of the District Park charge referred to above.

² For comparison purposes the Rural (Serviced) charge includes all City-wide and Rural services plus City-wide component of Sanitary Sewer and Water services (i.e. \$20,411 + \$2,258 + \$173 = \$22,842). Additional area-specific charges for Sanitary Sewer and Water services would be applicable within the defined areas of Richmond (sanitary sewer only) and Manotick only.

Table ES-1
City of Ottawa
Comparison of August 31, 2013 Single Detached Development Charge vs. Calculated

1) Inside the Greenbelt

	Inside the Greenbelt as of August 1, 2013	Calculated			Difference
		City Wide	Inside the Greenbelt	Total	
Roads & Related Services	7,529	8,047	419	8,466	937
Sanitary Sewer	2,494	2,258	2,166	4,424	1,930
Water	1,329	173	180	353	(976)
Stormwater Drainage	44	42		42	(2)
Protection	30	445	0	445	415
Public Transit	3,849	6,409		6,409	2,560
Parks Development (Non-District Parks)	377	0	255	255	(122)
Recreation Facilities	318	82	818	900	582
Libraries	485	253	222	475	(10)
Child Care Facilities	86			0	(86)
Paramedic Service	53	89		89	36
Affordable Housing Program	189			0	(189)
Corporate Studies	108	101	0	101	(7)
Total	16,891	17,899	4,060	21,959	5,068

2) Outside the Greenbelt

	Outside the Greenbelt as of August 31, 2013	Calculated			Difference
		City Wide	Outside the Greenbelt	Total	
Roads & Related Services	8,742	8,047	2,412	10,459	1,717
Sanitary Sewer	2,279	2,258	2,702	4,960	2,681
Water	2,268	173	2,857	3,030	762
Stormwater Drainage	44	42		42	(2)
Protection	707	445	508	953	246
Public Transit	3,850	6,409		6,409	2,559
Parks Development (Non-District Parks)	2,703		2,270	2,270	(433)
Recreation Facilities	3,859	82	3,800	3,882	23
Libraries	385	253	335	588	203
Child Care Facilities	86			0	(86)
Paramedic Service	53	89		89	36
Affordable Housing Program	189			0	(189)
Corporate Studies	150	101	92	193	43
Total	25,315	17,899	14,976	32,875	7,560

Outside the Greenbelt (excluding Millennium Park Area)

Parks Development (District Parks)	0	0	227	227	227
Total	25,315	17,899	15,203	33,102	7,787

Outside the Greenbelt (Millennium Park Area)

Parks Development (District Parks)	0	0	555	555	555
Total	25,315	17,899	15,531	33,430	8,115

Table ES-1 (Cont'd)
City of Ottawa
Comparison of August 31, 2013 Single Detached Development Charge vs. Calculated

3) Rural

	Rural Serviced as of August 31, 2013	Calculated			Difference
		City Wide	Rural Serviced	Total Serviced	
Roads & Related Services	8,455	8,047	460	8,507	52
Stormwater Drainage	47	42		42	(5)
Protection	415	445	199	644	229
Public Transit	1,284	6,409		6,409	5,125
Parks Development (Non-District Parks)	1,169	0	3,157	3,157	1,988
Recreation Facilities	541	82	454	536	(5)
Libraries	454	253	552	805	351
Child Care Facilities	86			0	(86)
Paramedic Service	53	89		89	36
Affordable Housing Program	189			0	(189)
Corporate Studies	1,177	101	121	222	(955)
Total	13,870	15,468	4,943	20,411	6,541

Rural Serviced (Richmond)

Sanitary Sewer	1,237	2,258	14,657	16,915	15,678
Total	15,107	17,726	19,600	37,326	22,219

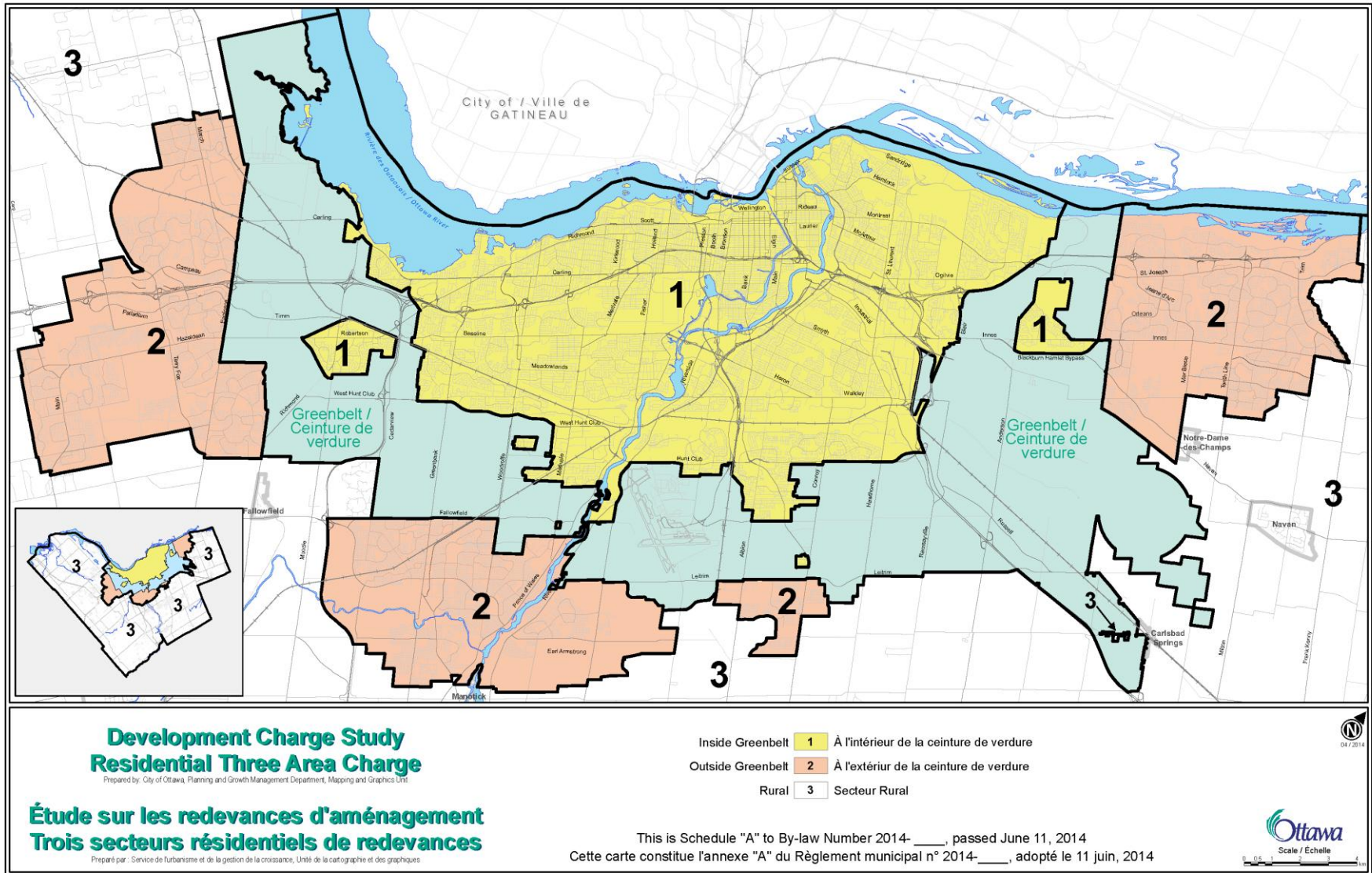
Rural Serviced (Manotick)

Sanitary Sewer	1,237	2,258	6,718	8,976	7,739
Water	975	173	3,477	3,650	2,675
Total	16,082	17,899	15,138	33,037	16,955

Table ES-1A
City of Ottawa
Calculated Full Recovery Development Charges by Residential Unit Type

Development Location/Type	August 1, 2013 Charge	Calculated Charge	
		\$	%
<u>INSIDE THE GREENBELT</u>			
Residential			
• Single and Semi-detached	16,891	21,959	100%
• Apartment (2+ bedrooms)	8,557	12,934	58.90%
• Apartment (less than 2 bedrooms)	6,948	9,524	43.37%
• Multiple, row and mobile dwelling	12,291	17,198	78.32%
Non-residential (per sq.ft. GFA)			
• General	17.88	} 19.80	
• Commercial, Institutional, Industrial	14.48		
• Limited Industrial	8.22		8.63
<u>OUTSIDE THE GREENBELT</u>			
Residential			
• Single and Semi-detached	25,315	33,102	100%
• Apartment (2+ bedrooms)	14,742	17,564	53.06%
• Apartment (less than 2 bedrooms)	10,235	12,933	39.07%
• Multiple, row and mobile dwelling	19,706	24,899	75.22%
Non-residential (per sq.ft. GFA)			
• General	17.88	} 19.80	
• Commercial, Institutional, Industrial	14.48		
• Limited Industrial	8.22		8.63
<u>RURAL SERVICED</u>			
Residential			
• Single and Semi-detached	16,082	22,842	100%
• Apartment (2+ bedrooms)	8,605	13,114	57.41%
• Apartment (less than 2 bedrooms)	7,030	9,655	42.27%
• Multiple, row and mobile dwelling	12,958	14,843	64.98%
Non-residential (per sq.ft. GFA)			
• General	17.88	} 19.80	
• Commercial, Institutional, Industrial	14.48		
• Limited Industrial	8.22		8.63

FIGURE ES-1



These geographic areas are defined in Schedule “A” to the proposed DC by-law in Appendix H. A portion of the charge was calculated on a uniform, average City-wide basis, which produces a charge per single detached unit of \$17,899 in each case. Other components of the charge were calculated based on costs and development quantities which are specific to each of the three geographic areas. Table 5-1 of the study outlines the distinction between these two sets of costs and the associated rationale.

- 2.3 A similar version of this methodology was applied in 2004 and 2009. It reflects the City’s desire to establish a development charge schedule which reasonably reflects servicing “benefits received” in the broad areas of the City. As a result, the single detached dwelling charges for fully serviced development Inside the Greenbelt are comparable to the Rural (Serviced) area charges and approximately 34% below the Outside the Greenbelt charges.
- 2.4 The proposed charges for a single detached unit are greater than the current development charges in all three cases, but the increase varies significantly. The increases are generally attributable to:
- (i) The increase in Public Transit DC recoverable costs, including interest costs on committed capital, accounting for 33-50% of the increase in the charge Outside the Greenbelt and Inside the Greenbelt respectively. In the Rural area, the increase in the Public Transit component represents 76% of the increase in the charge, due in part to the 2/3 Public Transit charge reduction for the rural area in the City’s current DC by-law;
 - (ii) The increase in Sanitary Sewer DC recoverable costs accounting for 35 and 38% of the increase in the charge Outside the Greenbelt and Inside the Greenbelt respectively.
- 2.5 Table ES-1B sets out the proposed non-residential development charge. This charge has been generally calculated entirely on a City-wide basis. This was done in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible throughout the City. The exceptions are area-specific charges for wastewater in the Village of Richmond and water and wastewater in the rural area of Manotick.

Table ES-1B
City of Ottawa
Comparison of Current Non-residential Development Charges vs. Calculated

1) City-Wide (Industrial and Non-Industrial)

Non- Industrial	Non-Res. General & Commercial, Institutional, Industrial as of August 1, 2013	Calculated City Wide Non-Industrial	Difference
Roads & Related Services	9.95 - 8.06	9.41	(0.54) - 1.35
Sanitary Sewer	1.90 - 1.54	1.80	(0.10) - 0.26
Water	0.40 - 0.32	0.34	(0.06) - 0.02
Stormwater Drainage	0.05 - 0.04	0.04	(0.01) - 0.00
Protection	0.56 - 0.45	0.76	0.20 - 0.31
Public Transit	4.19 - 3.39	6.73	2.54 - 3.34
Parks Development (Non-District Parks)	0.18 - 0.15	0.16	(0.02) - 0.01
Parks Development (District Parks)	0.00 - 0.00	0.01	0.01 - 0.01
Recreation Facilities	0.24 - 0.19	0.24	(0.00) - 0.04
Libraries	0.04 - 0.03	0.06	0.02 - 0.02
Child Care Facilities	0.10 - 0.08	0.00	(0.10) - (0.08)
Paramedic Service	0.06 - 0.05	0.09	0.03 - 0.04
Affordable Housing Program	0.00 - 0.00	0.00	0.00 - 0.00
Corporate Studies	0.21 - 0.17	0.16	(0.05) - (0.01)
Total	17.88 - 14.48	19.80	1.92 - 5.32

Rural Serviced (Richmond)

Sanitary Sewer	0.00 - 0.00	20.12	20.12 - 20.12
Total	17.88 - 14.48	39.92	22.04 - 25.44

Rural Serviced (Manotick)

Sanitary Sewer	0.00 - 0.00	9.23	9.23 - 9.23
Water	0.00 - 0.00	4.78	4.78 - 4.78
Total	17.88 - 14.48	33.81	15.93 - 19.33

Table ES-1B (cont'd)
City of Ottawa
Comparison of Current Non-residential Development Charges vs. Calculated

1) City-Wide (Industrial and Non-Industrial)

Industrial	Limited Industrial as of August 1, 2013	Calculated City Wide Industrial	Difference
Roads & Related Services	4.57	3.99	(0.59)
Sanitary Sewer	0.87	0.85	(0.02)
Water	0.18	0.15	(0.03)
Stormwater Drainage Protection	0.02	0.02	(0.01)
Public Transit	0.26	0.30	0.04
Parks Development (Non-District Parks)	1.93	2.77	0.84
Parks Development (District Parks)	0.08	0.16	0.08
Recreation Facilities	0.00	0.01	0.01
Libraries	0.11	0.24	0.12
Child Care Facilities	0.02	0.06	0.04
Paramedic Service	0.05	0.00	(0.05)
Affordable Housing Program	0.03	0.03	0.00
Corporate Studies	0.00	0.00	0.00
	0.10	0.06	(0.03)
Total	8.22	8.63	0.41

Rural Serviced (Richmond)

Sanitary Sewer	0.00	0.00	0.00
Total	8.22	8.63	0.41

Rural Serviced (Manotick)

Sanitary Sewer	0.00	3.64	3.64
Water	0.00	1.88	1.88
Total	8.22	14.15	5.93

- 2.6 In the 2009 DC Study the non-residential charge was calculated on a uniform basis for all non-residential development. The City's current DC by-law differentiates charges by non-residential types through DC reductions. General Use Non-Residential (i.e. retail, hotel/motel and temporary accommodations) is charged the full calculated non-residential charge; Industrial Limited Use (i.e. industrial excluding high technology) is charged 46% of the full charge; and all other Commercial, Industrial and Institutional uses are charged 81% of the full charge. These non-residential charge reductions accounted for \$21 million in foregone DC revenue over the current term of the DC by-law.
- 2.7 To mitigate the loss in foregone revenue, a differentiated charge is proposed for Industrial and Non-Industrial Uses. The calculated rate for Industrial Use represents an increase of 5% over the current Industrial Limited Use charge. The calculated rate for Non-Industrial represents an increase of 11% over the current General Use Non-Residential charge and a more significant increase of 37% over the current charges for the remaining Commercial, Industrial and Institutional uses.
- 2.8 Table ES-2 summarizes the City's Development Related Capital Program and the deductions made thereto, in accordance with the DCA. In summary, the gross capital cost of the entire program is \$6.29 billion. Of this amount, \$2.36 billion has been determined to be DC-recoverable (\$1.62 billion from residential development and \$0.74 billion from non-residential development). The difference between the gross and DC recoverable amounts is comprised of the following deductions, pursuant to the *Development Charges Act*:
- \$ 395 million - Beyond 10-year Service Level Cap
 - \$1,279 million - Benefit to Existing Development
 - \$ 630 million - Post Period Capacity
 - \$1,663 million - Subsidies, Other Contributions, and 10% Statutory Deduction
 - \$ (37) million - Reserve Fund Adjustments
- \$3,930 million
- 2.9 The calculated charges by type of dwelling unit and by type of non-residential development are set out in the Schedules to the proposed by-law in Appendix H. They reflect geographic differences in persons per unit occupancy averages for various residential unit types, as well as the City's past practice with respect to differentiated non-residential development recoveries.
- 2.10 The City has taken into consideration past discounting and exemptions applied through the current by-law as part of making the calculation. This is reflected in the reserve fund adjustments.

Table ES-2
City of Ottawa
Summary of Development Charge Capital Program by Service Including Post 2031 Capacity
\$000's

	Capital Costs	Ineligible re Level of Service	Benefit to Existing Development	Grants Subsidies & Other	Post Period Capacity	Growth Capital Costs	10% Statutory Reduction	Adjustment Prior Years' Discounting	Reserve Fund Balances	DC Recoverable Costs	DC Recoverable	
											Residential	Non-Residential
Roads & Related Services	1,649,172		192,188	-	315,026	1,141,958		51,423	(13,538)	1,104,073	682,883	421,189
Sanitary Sewer	1,139,510		632,370	-	92,962	414,178		9,220	(21,962)	426,920	344,597	82,324
Water	278,565		74,993	-	70,465	133,107		6,641	(26,953)	153,419	137,420	16,000
Stormwater Drainage Protection	12,500		8,750	-	-	3,750		186	(1,306)	4,870	2,992	1,878
Public Transit	68,197	-	16,074	-		52,123				52,123	34,402	17,722
Parks Development	2,970,021	395,314	339,452	1,614,377	148,140	472,738	35,118	11,644	(52,768)	478,744	287,624	191,117
Recreation Facilities	108,542	-	3,003	-	3,837	101,702	10,170			91,532	86,955	4,577
Libraries	7,290	-	2,992	-		4,298	430			3,868	3,675	193
Paramedic Service	35,138	-	4,607	-		30,531	3,048			27,483	26,110	1,374
Corporate Studies	7,300	-	615	-		6,685	668			6,017	3,973	2,044
	16,025		4,033	-		11,992		610	57	11,325	7,571	3,754
Total	6,292,260	395,314	1,279,077	1,614,377	630,430	2,373,061	49,434	79,724	(116,471)	2,360,375	1,618,202	742,172

3. Policy Issues

3.1 A number of policy issues were addressed in the course of this DC by-law update, beyond those relating to the geographic quantum of the charge. These matters, which include exemptions, redevelopment, phasing in, etc., are discussed in Appendix G of the study and set out in the by-law in Appendix H.

3.2 A policy issue of over-riding importance relates to the potential impact of changes in the development charge quantum for various types of development and geographic locations within the City, on Ottawa's rate of development. The following observations are made in this regard:

- a) The development of non-district parks will be transitioned out of the DC by-law commencing October 1, 2014³. Once complete the DC impacts for a single detached unit will range from a 22% increase Outside the Greenbelt and within the Rural Area, to an increase of 30% Inside the Greenbelt.
- b) The calculation of a differentiated change for Industrial and Non-Industrial will have the greatest impact on non-retail commercial development resulting in a 37% increase in the current charge.

Acknowledging the magnitude of the impact on units in the development process, a transition policy is recommended whereby the current single detached residential dwelling unit rates⁴ and non-residential rates would remain in effect until September 30, 2014, providing time for the industry to adjust to the new charges. The calculated charges for individual services have been reduced to preserve maximum contributions to Public Transit services in the interim.

3.3 The following policies relating to exemptions, credits and related matters are proposed as changes to the existing by-law:

- a) Child Care Facilities and Affordable Housing Program have been removed as a service for which development charges are imposed;
- b) Redevelopment credit provisions were narrowed to reduce the time between demolition and new construction to a maximum of 10 years; and

³ The non-district parks charge will remain in effect Inside the Greenbelt.

⁴ All other dwelling units would be reduced by the same percentage, however the charges relative to current rates will be adjusted for occupancy differences.

- c) Exemptions for municipal capital facilities were narrowed to require the payment of the Public Transit component of the charge (unless exempted by Council resolution or by-law).

4. Council Approvals Sought

4.1 Following an extensive consultation process, the DC Background Study and proposed DC by-law are being provided for information purposes, as part of that consultation process. At such time as that process is complete and final DC recommendations are made to Council, approval will be sought for:

- the 2014 DC by-law;
- the DC Background Study, including the development forecast, the development-related capital program, the DC calculation and associated material, subject to any Addendum which may be produced prior to by-law adoption.

5. Acknowledgements

5.1 The study team wishes to acknowledge, with appreciation, the guidance, input and considerable efforts of the Council Sponsors Group and Industry Working Group, and those City staff from all departments who participated in the preparation of this Background Study, including General Manager, Planning and Growth, John Moser; Treasurer, Marian Simulik; and the Study Co-ordinator, Gary Baker.

1. INTRODUCTION

1. INTRODUCTION

1.1 Development Charges Act (DCA) Background Study Requirements

The DCA requires that a development charge background study must be completed by City 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, and are 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 Chapter 4 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 E 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 and addressed in Chapter 4 of this report)

FIGURE 1-1
SCHEDULE OF KEY DEVELOPMENT CHARGE PROCESS DATES
FOR THE CITY OF OTTAWA

Step	Timing
1. Drafting of Background Study and stakeholder consultation	January-March, 2014
2. Initial review of preliminary DC calculation	March 24, 2014
3. Additional consultation meetings	April-May , 2014
4. Meeting Notice ad placed in newspaper(s)	No later than April 22, 2014
5. Proposed By-law and Background Study Available to public	April 28, 2014
6. Statutory Public Meeting	May 13, 2014
7. Council consideration of By-law adoption	June 11, 2014
8. Existing By-law expiry (unless repealed earlier)	June 24, 2014
9. Newspaper notice given of by-law passage	By 20 days after passage
10. Last day for by-law appeal	40 days after passage
11. City makes available pamphlet (where by-law not appealed)	by 60 days after inforce date

1.2 Development Charges Act Requirements

1.2.1 Introduction

1. Development charges are payments made by new development in Ottawa (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 City's DC by-law.
2. These payments are made for the initial capital requirements of providing services to new development anticipated over the next decade. All City-funded services are potentially 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 City of Ottawa and many of the former municipalities have imposed development charges under the DCA since 1991 and prior to that as lot levies pursuant to the *Planning Act*. The City's current DC by-law (No. 2009-216) came into effect on June 24, 2009 with a maximum life of 5 years.
5. This by-law provides for development charge 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 August 1st each year, based on the prescribed Statcan index in the form of the Statistics Canada Infrastructure Development Charge Price Index Catalogue 62-007 for Ottawa. The timing of the indexing of rates will be altered in the new by-law.
7. The monies collected under a DC by-law are maintained in separate reserve funds, one for each of the services involved.
8. Each development charge paid is allocated, as a statutory requirement, to those reserve funds, in accordance with the development charge for each service. 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 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%, etc.;
 - calculate development charges by type of use and document this in a Background Study and by-law;
 - 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 portion of funding for designated projects.

1.2.2 Development Charge Prerequisites

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

1. A City 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;
 - 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 Ottawa mid 2014-2024 (or a 2014-31 planning period in the case of “hard” services).
3. A service for which City Council has or will (as part of the DC process) approve(d) a capital forecast which includes capital capacity expansion projects as per para. 2.
4. Such capital capacity expansion projects are not fully funded by grants, subsidies or developer contributions or other 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. Such capital costs don’t relate to a time beyond the next decade (except in the case of roads, water, waste water, fire, stormwater management and police).
8. Such capital costs don’t serve to increase the future (per capita/employee) level of service beyond the average attained in Ottawa over the 2004-2013 period.

1.2.3 Development Charge Methodology

The following tabular text 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 1-2 which follows.

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."	<p>This step involves estimating the additional service requirement, individually for police, roads, etc., that is needed by the development increment in paragraph 1.</p> <p>The anticipated development in para. 1 must correspond to the service attribution in para. 2.</p> <p>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, particularly because numerous unspecified geographic locations are involved for such development, which makes the servicing cost difficult to identify.</p> <p>As a result, the total cost/total development approach outlined above is used and has the same effect on the DC quantum.</p>

s.s.5(1) of the DCA (and associated Regulations)	Commentary
<p>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</p> <p>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 and the plan, forecast or similar expression of the intention of the council has been approved by the council.</u>”</p>	<p>The capital forecast underpinning the DC calculation must be formally approved by Council in one of the ways indicated in the Regulation.</p>
<p>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).”</p> <p>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.”</p>	<p>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.</p> <p>In accordance with s.s.5(1)4, services such as emergency medical services, etc., are restricted to a maximum 10-year planning horizon.</p> <p>s.s.5(5) lists water, waste water, storm water, road, police and fire services. These are not subject to a 10 year planning period cap.</p> <p>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).</p> <p>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 s.m. of floor space).</p>

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

s.s.5(1) of the DCA (and associated Regulations)	Commentary
<p>s.s.4(2) addresses the service level in an excluded geographic area where a service is not provided.</p> <p>s.s.4(4) limits the service level in part of a municipality to the level otherwise applicable to the full municipality.</p> <p>s.s.4(3) modifies the service level cap where a higher level is required by another Act.</p> <p>O.Reg. 206/04 amended s.4 of O.Reg. 82/98 by adding the following subsection:</p> <p>“(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)</p>	<p>} potentially affects area-specific charges</p> <p>} affects water and waste water requirements in particular</p> <p>The Reg. clarifies that the quality level of service measure is to be based on the undepreciated replacement cost of municipal capital works.</p>
<p>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 excess capacity that the council of the municipality has indicated an intention would be paid for by new development.</u>”²</p> <p>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>”</p>	<p>“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, which can be required to fund it through future DCs.</p> <p>The Reg. 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.</p>

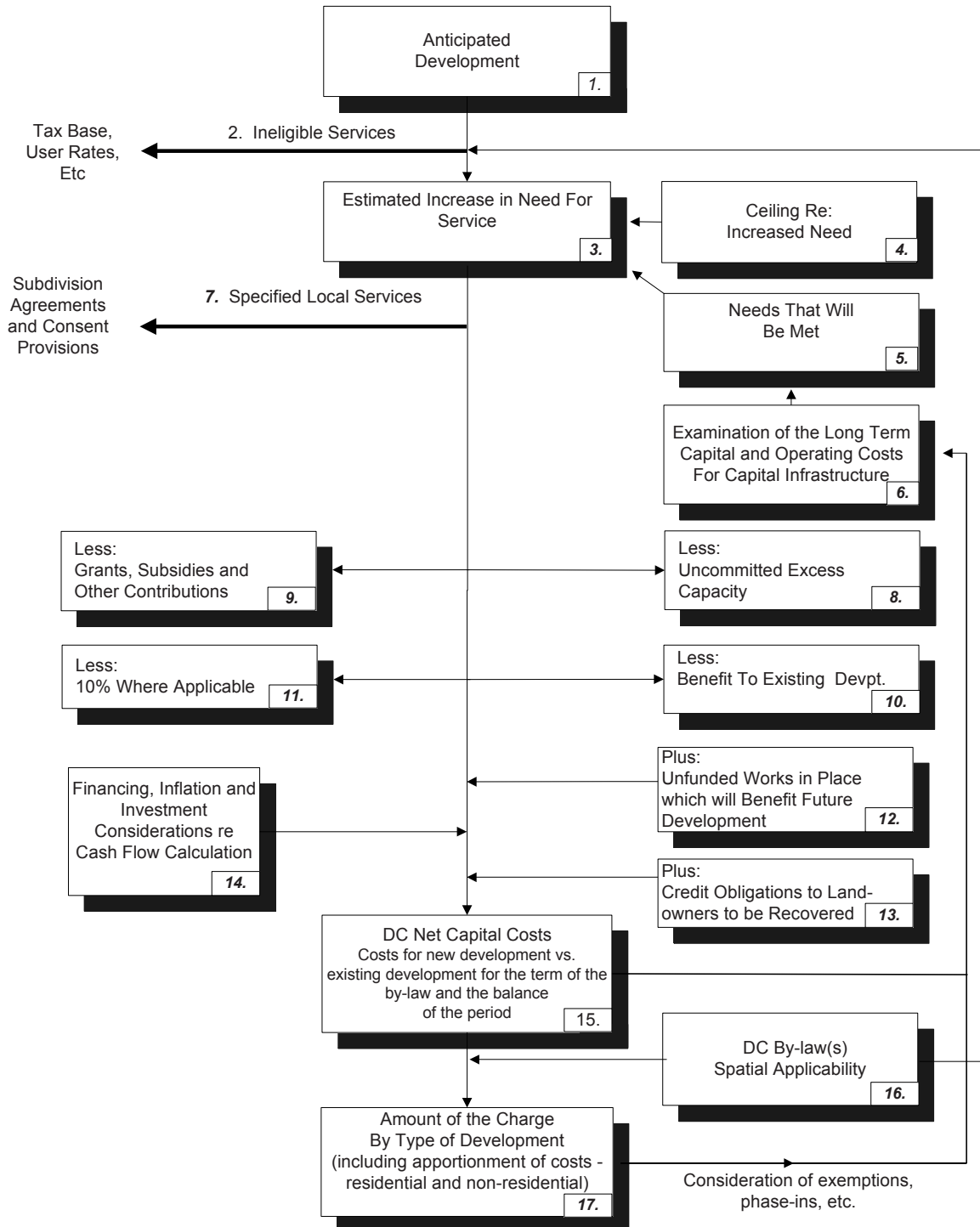
² The Act notes that the provisions may be further governed by regulations.

s.s.5(1) of the DCA (and associated Regulations)	Commentary
<p>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</p> <p>Note: no regulatory clarification has been provided.</p>	<p>Existing development benefits from:</p> <ul style="list-style-type: none"> • 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).
<p>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</p> <p>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.</p> <p>s.s.5(3) defines capital costs to include:</p> <ul style="list-style-type: none"> • 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. 	<p>s.s.5(2) refers to capital grants, subsidies and other contributions made to a municipality <u>or that Council anticipates</u> will be made in <u>respect of the capital costs</u>.</p> <p>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)).</p> <p>Includes debt payments related to previously constructed growth-related works.</p>

s.s.5(1) of the DCA (and associated Regulations)	Commentary
<p>8. “The capital cost must be reduced by 10 per cent. This paragraph does not apply to services set out in subsection (5).”</p>	<p>For example, the 10% reduction <u>does</u> apply to Parks, Recreation, Libraries, Transit, and Paramedic Services, for example.</p> <p>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 acquisition; public hospitals, waste management services; and general administration headquarters for municipalities/local boards).</p>
<p>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).”</p> <p>s.s.5(6):</p> <p>“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></p> <ol style="list-style-type: none"> 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), that arise from the increase in the need for services attributable to the type of development.</u> 	<p>These are mandatory DC by-law inclusions as to how the charge is to be applied to development types and circumstances.</p> <p>These are three over-riding tests to be met by the DC by-law.</p> <p>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).</p> <p>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.</p>

s.s.5(1) of the DCA (and associated Regulations)	Commentary
<p>However, it is <u>not necessary that the amount of the development charge</u> for a particular development <u>be limited to the increase in capital costs, if any, that are attributable to that particular development.</u></p> <p>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 for determining development charges may not provide for any resulting shortfall to be made up through higher development charges for other development.</u>”</p>	<p>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.</p> <p>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.</p>
<p>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.”</p>	<p>Optional by-law inclusions such as authority to set rules on discretionary exemptions, phasing in of DCs and indexing of DCs.</p>

FIGURE 1-2
THE PROCESS OF CALCULATING A DEVELOPMENT CHARGE UNDER THE DCA, 1997



2. CURRENT CITY OF OTTAWA DEVELOPMENT CHARGE POLICY

2. CURRENT CITY OF OTTAWA DEVELOPMENT CHARGE POLICY

2.1 Schedule of Charges

On June 24, 2009, the City of Ottawa passed By-law No. 2009-216 under the *Development Charges Act, 1997*. The by-law came into effect on June 24, 2009. It imposes development charges on residential, commercial and industrial uses. The rates in effect for the first period and as of August 1, 2013 are as follows.

USE	EFFECTIVE July 1, 2009				EFFECTIVE August 1, 2013			
	Inside Greenbelt ¹	Outside Greenbelt ¹	Rural Serviced	Rural Unserviced	Inside Greenbelt ¹	Outside Greenbelt ¹	Rural ¹ Serviced	Rural ¹ Unserviced
	1. Residential Charges (per dwelling unit)							
• Single and Semi-detached ²	\$11,218	\$19,991	\$7,982	\$5,664	\$16,891	\$25,315	\$16,082	\$13,880
• Apartment (2+ Bedrooms) ³	6,901	14,152	5,315		8,557	14,742	8,605	7,422
• Apartment (less than 2 Bedrooms)	4,679	8,267	3,436		6,948	10,235	7,030	6,062
• Multiple, Row and Mobile Dwelling	8,403	15,511	6,262		12,291	19,706	12,958	11,175
2. Non-residential Charges (per sq.ft. of GFA)								
• General Use (All retail uses, plus hotels, motels and temporary accommodation structures)	\$10.06		\$7.89	\$7.08	\$17.88		\$17.88	\$15.52
• Commercial, Industrial, Institutional Use ("Institutional" includes hospitals, nursing homes, homes for the aged, schools (excl. dwelling units). "Industrial" is generally as defined in O.Reg. 82/98 with the exception of "limited." "Commercial" is all other non-residential uses not covered by other categories, including office)	8.19		6.41	5.74	14.48		14.48	12.57
• Industrial (Limited) Use (Industrial uses which are not high technology)	4.65		3.64	3.26	8.22		8.22	7.14
¹ As per Schedule A, which follows.								
² The DC for a rooming or boarding house is the single family dwelling rate X the number of persons it is designed to accommodate ÷ 4 and rounded to the nearest lower whole number (s.s 4(3)).								
³ Inclusive of non-apartment dwellings with 3+ bedrooms and 1,000 sq.ft. of GFA or less (s.s.6(c))								

H:\OTTAWA\2014 DC\Table 2-1.xls]Table 2-1

2.2 Amendments

There have been two amendments to By-law 2009-216 since its passage. First, the schedule of charges was amended by the February 3, 2011 OMB decision (DC090038) to address an agreed upon calculation error in the full calculated charge for single and semi-detached units.

The parks component of the City's development charge by-law was amended by By-law 2011-33 to remove certain parkland development components from the City's Local Service Policy to the development charge calculation. As a result, the requirements for developers dedicating

land for parks as a condition of subdivision or site plan agreement have been reduced and those components have been added to the development charge calculation.

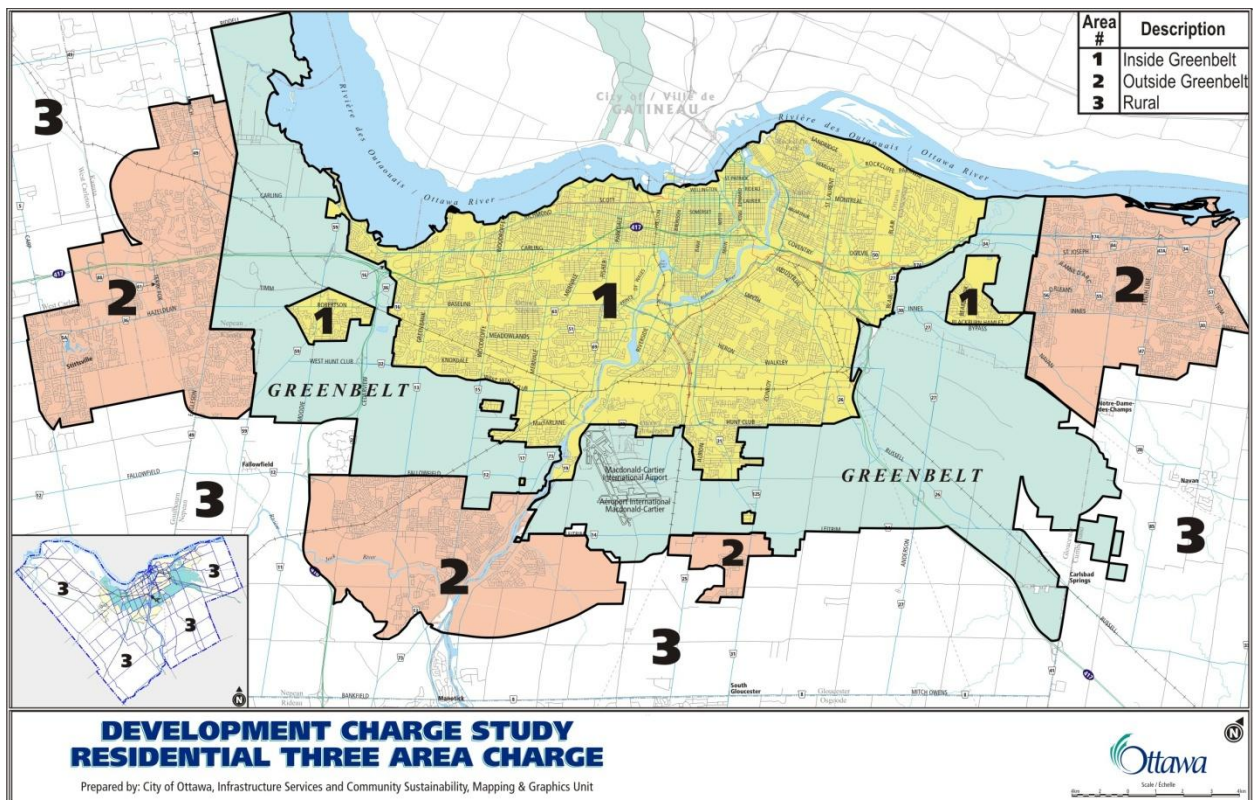
The result was in an increase in the Parks and Trails portion of the development charge of approximately 100% for development residential development inside and outside of the greenbelt and for non-residential development, with a lower increase in the rural area. That increase is reflected in the schedule of charges as of August 1, 2013 shown in Table 2-1, above.

2.3 Services Covered

The following are the services covered under By-law No. 2009-216:

- Roads and Related Services;
- Sanitary Sewer (Waste Water);
- Water;
- Stormwater Drainage;
- Police;
- Emergency Services (Fire);
- Public Transit;
- Parks Development;
- Recreation Facilities;
- Libraries;
- Child Care;
- Works and Yards;
- Paramedic Service;
- Corporate Studies; and
- Affordable Housing Program. (s.s.3(2))

SCHEDULE "A"
DESIGNATED AREAS OF THE CITY OF OTTAWA



2.4 Timing of DC Calculation and Payment

Development charges are calculated and payable upon issuance of a building permit with respect to a building or structure to which the development charge applies. (s.s.15(1))

The City may provide that the development charge is payable immediately upon the parties entering into a subdivision or consent agreement. Further, an owner and the City may enter into an agreement with respect to full or partial payment or the provision of services in lieu and the terms thereof prevail over the by-law provisions. (s.s.15(2))

Payment for the Parks, Recreation, Library, Childcare, Paramedic Service, Corporate Studies and Affordable Housing components of a development charge can be deferred for two years in the case of non-residential development where payment is secured under a siteplan agreement. (s.s.15(5))

2.5 Indexing

By-law 2009-216 provides for the mandatory annual indexing of development charges on August 1st of each year commencing on August 1, 2010 based on the most recent annual change in the Statistics Canada Infrastructure Development Charge Price Index, Catalogue 62-007 for Ottawa. This index has been prepared for the City by Statistics Canada using input from the City regarding actual construction costs of development charge funded projects. (s17)

Table 2-2 sets out the current charge reflecting phasing in of the rates, indexing, and the amendments discussed in Section 2.2.

SERVICE	PER SINGLE/SEMI-DETACHED UNIT				PER SQ.FT. OF NON-RES. GENERAL USE		
	Inside	Outside	Rural		Urban	Rural	
	Greenbelt	Greenbelt	Serviced	Unserviced		Serviced	Unserviced
Roads and Related Service	7,036	8,249	7,962	8,019	9.39	9.39	9.38
Sanitary (Waste Water)	2,494	2,279	1,237	0	1.90	1.90	0.00
Water	1,329	2,268	975	0	0.40	0.40	0.00
Storm Water Drainage	44	44	47	0	0.05	0.05	0.00
Police	30	393	279	279	0.32	0.32	0.32
Emergency Services (Fire)	0	314	136	136	0.24	0.24	0.24
Public Transit	3,849	3,850	1,284	1,284	4.19	4.19	4.19
Parks Development	377	2,703	1,169	1,169	0.18	0.18	0.18
Recreation	318	3,859	541	541	0.24	0.24	0.24
Libraries	485	385	454	454	0.04	0.04	0.04
Child Care	86	86	86	86	0.10	0.10	0.10
Paramedic Services	53	53	53	53	0.06	0.06	0.06
Works Yards	493	493	493	493	0.56	0.56	0.56
Affordable Housing	189	189	189	189	0.00	0.00	0.00
Studies	108	150	1,177	1,177	0.21	0.21	0.21
TOTAL	16,891	25,315	16,082	13,880	17.88	17.88	15.52

H:\OTTAWA\2014 DC\Table 2-1.xls]Table 2-1

2.6 Redevelopment Credit

Where development occurs on a site which has or will involve the demolition of a pre-existing building in receipt of the same services available to the building to be constructed, a DC credit will be provided, such that only the net increase in residential dwelling units or non-residential gross floor area is charged (Section 8). If the demolition that is scheduled to occur after the issuance of a permit for new development, s.s.8(2) provides that the demolition must occur no later than January 1, 2019 to be eligible for a credit under this section.

In the case of a conversion of a non-residential to residential use, the credit is in the amount of the theoretical development charges that would have been payable had a building permit be issued to construct the non-residential use being converted. No credit is provided where a residential use if converted to a non-residential use.

2.7 Non-Statutory Exemptions

The following discretionary exemptions¹ are provided under By-law No. 2009-216 (subject to more detailed and specific definitions in some cases):

- Places of worship including associated land (s.s.7(e));
- Churchyards, cemeteries and burying grounds exempt from taxation under the Assessment Act (s.s.7(f));
- Non-residential agricultural buildings (s.s.7(g));
- Farm retirement lots (s.s.7(h));
- Non-residential accessory uses with a gross floor area of less than ten square metres (s.s.7(i));
- Non-residential building permits for which no additional floor area is created (s.s.7(k));
- Temporary buildings removed within two years (s.s.7(l));
- Garden suites removed within ten years (s.s.7(m));
- Seasonal garden centres erected before March 15 and removed before October 15 each year (s.s.7(n));
- Non-profit housing intended for person of low or modest incomes (s.s.7(o));
- Non-profit health care facilities provided this cost is not reimbursed by Provincial or Federal governments (s.s.7(p));
- Farm help lots severed prior to July 9, 1997 (s.s.7(q));
- Development by non-profit child care providers and long term care facilities, where specifically authorized by Council (s.s.7(r));
- Development of a public facility where specifically authorized by Council (s.s.7(s)); and
- Development on contaminated land, where specifically authorized by Council (s.s.7(t)).

In addition to these full exemptions, the by-law provides a 19% discount from the full non-residential charge for commercial (excluding retail, hotel and motel uses), institutional and high-tech industrial uses and a 54% discount for industrial (limited) uses, which includes all industrial except for high technology uses.

Further, Section 9 of the by-law provides for a 50% reduction in the roads and related component of the development charge for apartments located within 600 metres of a rapid transit station where parking and other criteria are met.

¹ In addition to the statutory exemptions pertaining to education and municipal structures, residential intensification and industrial expansions.

2.8 Transition Measures and Phasing in of Charges

Section 11 provides for the phase-in of the new development charges over a four-year period, involving 25% increments of the difference in the rate between what could have been put in effect under By-law 2009-216 and the rate that would otherwise be in effect under the pre-existing by-law. The first increment came in to effect on January 15, 2010.

Subsections 11(6) and (7) provide for the transition of a residential DC exemption area provided in the 2004 DC by-law (bounded by Isabella, Chamberlain, Bronson and Elgin Streets) to non-exempt status, except where site plan agreements have been signed by July 31, 2011.

2.9 Services in Lieu/Oversizing

Section 14 sets out provisions for developer emplacement of DC eligible works. Where a person is permitted, by the City, to install works identified in Schedule "D" to the by-law (i.e. certain water, sanitary sewer and roadway infrastructure), they may be eligible for reimbursement of reasonable cost of the work in accordance with the amounts shown in Schedule "D".

3. ANTICIPATED DEVELOPMENT IN OTTAWA

3. ANTICIPATED DEVELOPMENT IN OTTAWA

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 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. 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, waste water, storm water drainage and control, electrical power, police and fire protection, to a maximum of 10 years following the preparation of the background study. Accordingly, this chapter addresses the anticipated timing of development.

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

The growth forecast contained in this Background Study provides the anticipated development for which the City of Ottawa will be required to provide services over a ten-year time horizon (2014-2024) and the longer planning horizon (to 2031) applicable to certain hard services as stated above. The basis for this particular forecast, which was prepared by City staff on a City-wide and area-specific basis, is outlined in detail in Appendix A. The discussion provided therein, summarizes the anticipated growth for the City and describes the basis for the forecast which is summarized in Table 3-1.

**TABLE 3-1
SUMMARY OF CITY OF OTTAWA GROWTH FORECASTS**

	Mid-2014	Mid-2024	Mid-2031	2014-2024	2014-2031
City-wide Population	948,881	1,064,056	1,135,841	115,175	186,960
City-wide Housing Units	400,330	460,349	497,041	60,019	96,711
Total City-wide Employment	585,820	659,863	703,117	74,043	117,297
Total City-wide Floor Space (sq. ft.)	N/A	N/A	N/A	34,483,185	53,859,858
City-Wide Employment, Excluding Work at Home and No Fixed Place of Work	N/A	N/A	N/A	59,889	95,094
City-wide Floor Space (sq. ft.), Excluding Work at Home and No Fixed Place of Work	N/A	N/A	N/A	27,010,630	42,862,835

Notes:

1. All figures represent mid-year.
2. 2014 population and dwelling units are based on short-term projections. 2024 and 2031 population and dwelling unit projections are based on City of Ottawa, "Growth Projections for Ottawa: Prospects for Population, Housing and Jobs 2006-2031," November 2007.
3. Assumes 350 sq. ft/employee for commercial, 900 industrial, and 400 institutional, and vacancy rates of 10% commercial, 10% industrial and 0% institutional.
4. Figures make no allowance for redevelopment or reoccupancy of vacant space.

Sources: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa; Watson & Associates

4. THE RESULTANT INCREASE IN THE NEED FOR SERVICE

4. 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 estimated increased need for service attributable to the anticipated development, which underpins the development charge calculation. These requirements were detailed in section 1.2 above.

4.2 Services Potentially Involved

Table 4-1 lists the full range of municipal service categories that are eligible for inclusion in the DC calculation.

A number of these services are referenced 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. In addition, two ineligible costs defined in s.s.5(3) of the DCA are “computer equipment” and “rolling stock with an estimated useful life of (less than) seven years...” In addition, local water, sanitary sewer, stormwater management and road works are recovered separately under subdivision agreements and related means (as are other local services). Services which are potentially eligible for inclusion in the City development charge are indicated with a “✓.”

4.3 The Increase in the Need for Service

The development charge calculation commences with an estimate of “the increase in the need for service attributable to the anticipated development,” for the services 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 (and s.3 of the associated regulation), 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 normally be applicable.

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	SERVICE COMPONENTS	MAXIMUM POTENTIAL DC RECOVERY %
1. Services Related to a Highway	<ul style="list-style-type: none"> ✓ ✓/Dev. Agreements Dev. Agreements ✓/Dev. Agreements ✓/ Dev. Agreements ✓/Dev. Agreements 	<ul style="list-style-type: none"> 1.1 Arterial roads 1.2 Collector roads 1.3 Local roads 1.4 Traffic signals 1.5 Sidewalks and streetlights 1.6 Urban Design 	<ul style="list-style-type: none"> 100 100 0 100 100 90
2. Other Transportation Services	<ul style="list-style-type: none"> ✓ ✓ ✓ ✓ ✓ ✓ n/a n/a 	<ul style="list-style-type: none"> 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 stock¹ 2.7 Ferries 2.8 Airport facilities 	<ul style="list-style-type: none"> 90 90 90 90 100 100 90 90
3. Storm Water Drainage and Control Services	<ul style="list-style-type: none"> ✓/Municipal Act² ✓/Dev. Agreements² ✓/Dev. Agreements² 	<ul style="list-style-type: none"> 3.1 Main channels and drainage trunks 3.2 Channel connections 3.3 Retention/detention ponds 	<ul style="list-style-type: none"> 100 100 100
4. Fire Protection Services	<ul style="list-style-type: none"> ✓ ✓ ✓ 	<ul style="list-style-type: none"> 4.1 Fire stations 4.2 Fire pumpers, aerials and rescue vehicles 4.3 Small equipment and gear 	<ul style="list-style-type: none"> 100 100 100
5. Outdoor Recreation Services (i.e. Parks and Open Space)	<ul style="list-style-type: none"> Ineligible ✓ ✓ ✓ ✓ ✓ 	<ul style="list-style-type: none"> 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 City-wide parks 5.5 Development of special purpose parks 5.6 Parks rolling stock¹ and yards 	<ul style="list-style-type: none"> 0 90 90 90 90 90
6. Indoor Recreation Services	<ul style="list-style-type: none"> ✓ ✓ 	<ul style="list-style-type: none"> 6.1 Arenas, indoor pools, fitness facilities, community centres, etc. (including land) 6.2 Recreation vehicles and equipment¹ 	<ul style="list-style-type: none"> 90 90
7. Library Services	<ul style="list-style-type: none"> ✓ ✓ 	<ul style="list-style-type: none"> 7.1 Public library space (incl. furniture and equipment) 7.2 Library materials 	<ul style="list-style-type: none"> 90 90
8. Electrical Power Services	<ul style="list-style-type: none"> Ineligible Ineligible Ineligible 	<ul style="list-style-type: none"> 8.1 Electrical substations 8.2 Electrical distribution system 8.3 Electrical system rolling stock¹ 	<ul style="list-style-type: none"> 0 0 0

¹with 7+ year life time
computer equipment excluded throughout
²via area-specific charges

CATEGORIES OF MUNICIPAL SERVICES	ELIGIBILITY FOR INCLUSION IN THE DC CALCULATION	SERVICE COMPONENTS	MAXIMUM POTENTIAL DC RECOVERY %
9. Provision of Cultural, Entertainment and Tourism Facilities and Convention Centres	Ineligible	9.1 Cultural space (e.g. art galleries, museums and theatres)	0
	Ineligible	9.2 Tourism facilities and convention centres	0
10. Waste Water Services	✓	10.1 Treatment plants	100
	✓	10.2 Sewage trunks	100
	Dev. Agreements	10.3 Local systems	0
	✓	10.4 Vehicles and equipment	100
11. Water Supply Services	✓	11.1 Treatment plants	100
	✓	11.2 Distribution systems	100
	Dev. Agreements	11.3 Local systems	0
12. Waste Management Services	Ineligible	12.1 Collection, transfer vehicles and equipment	0
	Ineligible	12.2 Landfills and other disposal facilities	0
	Ineligible	12.3 Other waste diversion facilities	0
13. Police Services	✓	13.1 Police detachments	100
	✓	13.2 Police rolling stock ²	100
	✓	13.3 Small equipment and gear	100
14. Homes for the Aged	✓	14.1 Homes for the aged space	90
15. Day Care	✓	15.1 Day care space (owned or leased)	90
16. Health	N/A	16.1 Health department space	90
17. Social Services	N/A	17.1 Social service space	90
18. Ambulance	✓	18.1 Ambulance station space	90
	✓	18.2 Vehicles ²	90
19. Hospital Provision	Ineligible	19.1 Hospital capital contributions	0
20. Shelter and Housing	N/A	20.1 Emergency Shelters	90
	✓	20.2 Social Housing	90
21. Provision of Headquarters for the General Administration of Municipalities and Local Boards	Ineligible	21.1 Office space (all services)	0
	Ineligible	21.2 Office furniture	0
	Ineligible	21.3 Computer equipment	0
22. Other Services	✓	22.1 Studies in connection with acquiring buildings, rolling stock, materials and equipment, and improving land ¹ and facilities, including the DC background study cost	0-100
	✓	22.2 Interest on money borrowed to pay for growth-related capital	0-100

¹ same percentage as service component to which it pertains

² with a 7+ year life

4.4 Local Service Policy

The City has established guidelines with respect to engineered services in terms of which development-related requirements are incorporated in the development charge calculation versus being a separate and independent requirement of development agreements, over and above the payment of the development charge. Guidelines as to the City's local servicing requirements outside of development charges are set out in Appendix D.

4.5 Credits Carried Forward

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." s.s.17 para. 4 of the same Regulation indicates that, "...The value of the credit cannot be recovered from future development charges," if the credit pertains to an ineligible service. This indicates that a credit for eligible services can be recovered from future development charges. A credit is, in effect, a Municipal payment liability linked to the prior provision of infrastructure by a landowner. Credits need to be included in the DC calculation, in order to ensure that the necessary development charge "funding room" has been provided.

4.6 Eligible Debt and Committed Excess Capacity

Section 66 of the DCA, 1997 states that for the purposes of developing 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. Similarly, s.18 of O.Reg. 82/98 indicates that debt with respect to a now-ineligible service (which was formerly eligible) may be included as a capital cost, subject to several restrictions.

In order for such costs to be eligible, two conditions must apply. First, they must have funded excess capacity that 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, City Council must have expressed a clear intention that it would be paid for by development charges or other similar charges. For example, this may have been done as part of previous development charge study processes.

As a result, debt charges for previous oversizing have been included as part of the DC recoverable costs in Appendix B.

4.7 Council's Assurance

In order for an increase in need for service to be included in the DC calculation, City Council must indicate "... that it intends to ensure that such an increase in need will be met" (s.s.(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). Council approval of the capital forecasts contained herein has been previously provided in many cases, but will be reaffirmed where applicable, as part of the DC by-law approval process.

5. DCA CALCULATION REQUIREMENTS

5. 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, where applicable, which relate to the need for service 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;
- the 10% statutory deduction for “soft services.”

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

- post-period capacity;
- uncommitted DC reserve fund balances;
- allocation of the total costs between residential and non-residential benefit.

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

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 City over the 10 year period preceding the preparation of the background study.

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.
- a geographic area of the municipality may be excluded in determining the average level of service, if the service is not provided there and the area is identified in the by-law. However, the average level of service so determined, cannot exceed that which would be determined if the by-law applied to the whole municipality.

A commonly-used quantity measure is units per capita (e.g. square feet, hectares, etc.), while quality can be measured in terms of cost per unit (including land where applicable), engineering standards or recognized performance measurement systems, depending on circumstances.

5.3 Uncommitted Excess Capacity

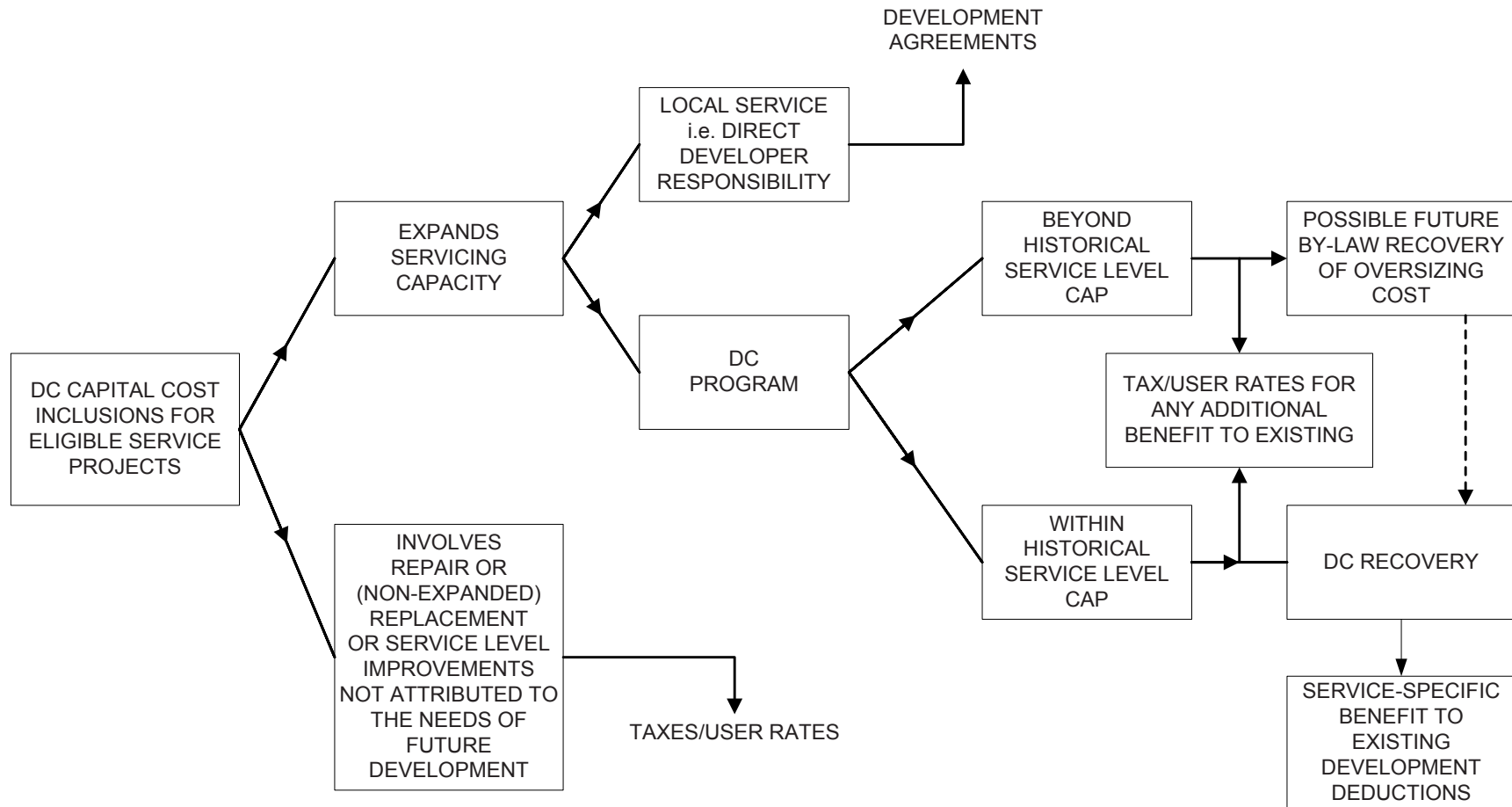
Paragraph 5 of s.s.5(1) of the DCA requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City's "excess capacity", other than excess capacity which is "committed", i.e. where Council has indicated a clear intention that it would be paid for by DCs or other similar charges, before or at the time the capacity was created (s.5 of O.Reg. 82/98).

"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 or is being provided via transit, then that widening would not be included as an increase in need, in the first instance. Another potential consideration may be an operational review of the capacity functioning of a particular facility.

5.4 Benefit to Existing Development

Benefit to existing development deductions have been addressed on a service-specific and project-specific basis. The methodology employed is briefly summarized in Figure 5-1 and discussed on a service-specific basis in Appendix B.

**FIGURE 5-1
CITY OF OTTAWA - 2014 DC BY-LAW UPDATE
BROAD RATIONALE FOR BENEFIT TO EXISTING DEVELOPMENT DEDUCTIONS**



Where the additional program of works is not expected to increase the existing level of service being provided, then the benefit to existing development is normally not extensive. It is, however, necessary to give some consideration to the nature of each type of project and its location in terms of proximity to anticipated new development. It should also be considered that:

- the City's population and employees are not fixed to one location, but move throughout the City to home, work, shopping, entertainment, school, etc., consuming City services in different locations;
- the assessment of the benefit to existing development is to be undertaken on a broad service-specific, City-wide or large area basis and must also have regard for the fact that growth will also occur in many areas of the City not directly benefiting from the service improvements involved.

The primary considerations involved in establishing an appropriate benefit to existing development deduction include:

- Is the project a capacity expansion, necessary to maintain the existing level of municipal service?
- Is the primary service area municipal-wide, large area or small area and how much growth is located in the relevant area?
- Was the project included in previous DC studies and with what level of deduction?
- Is the capital program well beyond the service level cap and to what extent do these projects benefit existing development (rather than representing oversizing for post period recovery)?
- Does the capital expenditure simply represent more of what is already being provided or does it instead offer a broader range of service?
- What is the estimated value of the service change being provided re user proximity, for example?
- Does the project involve a new facility or an existing replacement plus expansion?

5.5 Grants, Subsidies and Other Contributions

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.” (underlining added)

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.

Any grants, subsidies, developer and other contributions anticipated in respect of a capital project have been reflected in Appendix B, in accordance with the provisions of the Act and Regulation.

5.6 Post-period Capacity

This is a term and a concept which is not specifically referenced in the DCA. It refers to the cost of oversized development-related servicing capacity which is not required by development anticipated over the City's planning period, which will clearly benefit development in a subsequent planning period and should therefore be funded by such subsequent development. 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..."

For the City of Ottawa, post period capacity deductions in the case of services such as parks, recreation and libraries, which reflect a well-defined ten-year service increment based on per capita standards, there is no post period capacity provision. However in the case of major transit works, a post period capacity deduction is applicable. For hard services such as sewer, water and roads post period capacity deductions have been provided to reflect service oversizing beyond the 2031 forecast period. These deductions are provided in further detail in Appendix B.

5.7 DC Reserve Fund Balances

There is no explicit requirement under the DCA calculation method set out in s.s.5(1) to account for the outstanding reserve fund balance as part of making a 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)."

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 growth which occurred earlier in the

by-law period). This cost component is distinct from the development-related costs for the next 10 year period, which underlie the DC calculation herein.

The alternative would involve the municipality seeking to spend all reserve fund monies prior to renewing each by-law, which would often not be a sound basis for capital budgeting. Thus, the City will use these “soft service” reserve funds for the City’s cost share of applicable development-related projects, which are required, but have not yet been undertaken (i.e. ineligible service level and/or for benefit to existing development). This is a way of directing the funds to the project cost share for which they were collected, rather than to the sole benefit of future development, which will continue to generate the need for additional facilities and development charges, directly proportionate to the amount of growth involved.

As a result, the closing balances of the City’s DC reserve fund, as of December 31, 2013, for roads, water, sanitary sewers, storm drainage, stormwater management, transit and growth studies are to be deducted from future DC recoverable spending requirements. In addition, for calculation purposes, the DC reserve fund balances for these services have been adjusted to reflect the amount of foregone DC revenue from DC exemptions, reductions and phase-in over the current bylaw period. These amounts have been accounted for in making the calculations in Appendix C.

These deductions are made for the services noted above, in that the DC calculation for these services is geared to funding a large group of development-related works that are being implemented over the long term. While these works are also 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. The renewal process involves updating cost estimates and project descriptions, removing completed works and netting reserve fund balances, but maintaining the DC recoverable % share, each time a new DC is calculated.

5.8 Other Deductions

Paragraph 8 of s.s.5(1) of the DCA requires that, “the capital costs must be reduced by 10 per cent.” This paragraph does not apply to water supply services, waste water services, storm water drainage and control services, services related to a highway and to police and fire protection services. The City services that the 10% reduction does apply to are recreation, libraries, transit, paramedic and (some) growth studies and any related financing costs pertaining to these services.

The 10% is to be netted from the capital costs necessary to provide the increased services, once the other deductions (i.e. ineligible, benefit to existing, landowner contributions, etc.) have been made.

5.9 Cost Differentiation by Type of Development

s.s.5(6)2 of the DCA requires that every “type” of development that is expressly identified in the DC by-law cannot be required to pay development charges that exceed the capital costs arising from the increase in the need for service attributable to that particular type of development.

In the first instance, this allocation involves a split between residential and non-residential benefit. This is typically made based on the ratio of incremental growth in population to the total increment in population and employment, and this method has been applied for most services in the DC calculation. For water and sanitary sewer services, average incremental flow demands have been used to allocate costs between residential and non-residential development.

5.10 Area-specific Charges

Development charge by-laws can be imposed on a uniform City-wide basis or on an area-specific basis or, as in the case of the City of Ottawa, as a combination of these two approaches.

Table 5-1 outlines the way in which the development charge schedule herein has been aligned with the City’s area-specific recovery regime. The City is seeking the proper balance between charging each individual development its “true” servicing costs, which could produce a complex patchwork of area-specific charges vs. a uniform, City-wide charge, which is more flexible in terms of reserve fund management and cost recovery but may not adequately provide for fairness and incentives for development to occur where services already exist.

Area-specific charges will ensure that development in the Rural area will be required to pay an amount needed to provide for future growth-related infrastructure consistent with the Rural area’s unique level of service requirements (other than water and sanitary sewer servicing expansions which are to be separately addressed). The corollary to this objective is that Outside the Greenbelt development pays its fair share, which represents the balance of the residential growth-related cost.

TABLE 5-1
SUMMARY OF PROPOSED GEOGRAPHIC RECOVERY AREAS FOR
CITY OF OTTAWA DEVELOPMENT CHARGES

Service	DC Recovery Area			Basis
	City-wide	3 Area-specific ¹	Small area-specific	
City-wide Transportation Programs, arterial roads and public works vehicles and works yards	✓			Re the functioning of an integrated City-wide road network
Collector roads		✓		Primary use is localized, although in-commuter use is City-wide
Water purification and transmission	✓			Central facilities
Water distribution		✓		City-wide distribution system with large area benefits
Sanitary sewer treatment	✓			Central facilities
Sanitary sewer collection		✓		City-wide collection system with large area benefits
Storm drainage general	✓			Small City-wide program
Storm drainage ponds			✓	Small, well-defined drainage areas
Protection - police and fire complex providing City-wide services	✓			Emergency Operations, the Communications Centre and information/management technology
Protection – police and fire stations		✓		Stations have coverage areas which often overlap between two of the areas. Fire stations serve a small response time zone, broadened by back-up responsibility
Transit corridors and vehicles	✓			An integrated City-wide transit system

¹ 3 Area-specific refers to Inside the Greenbelt vs. Outside the Greenbelt (including serviced rural) vs. Rural. Note additional small area-specific charges have been identified for Millennium Park, Provence Avenue, and Flag Station Road areas.
The 3 Area-specific Rural allocation is variable on a service-specific basis

TABLE 5-1 (cont'd)
SUMMARY OF PROPOSED GEOGRAPHIC RECOVERY AREAS FOR
CITY OF OTTAWA DEVELOPMENT CHARGES

Service	DC Recovery Area			Basis
	City-wide	3 Area-specific ¹ specific ¹	Small area-specific	
Aquatic facilities, studies, etc.	✓			Users are drawn City-wide
Other recreation facilities, e.g. community centres and rec. complexes		✓		Recreation facilities with a more localized service area
Library facilities		✓		Library facilities generally serve a localized area
Library materials	✓			Materials are made available City-wide via inter-Library loans
Paramedic Service	✓			Posts are localized but ambulances are dispatched City-wide, "on the move"
Corporate studies	✓			These studies have broad City-wide coverage
Servicing studies		✓		These studies have broad area basis

¹ 3 Area-specific refers to Inside the Greenbelt vs. Outside the Greenbelt (including serviced rural) vs. Rural. Note additional small area-specific charges have been identified for Millennium Park, Provence Avenue, and Flag Station Road areas.
The 3 Area-specific Rural allocation is variable on a service-specific basis

6. DEVELOPMENT CHARGE RULES

6. 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. Costs to residential uses have been assigned to different types of residential units based on the average occupancy for each housing type constructed during the initial 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 each service-related circumstance and as outlined in Appendix B.
- 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 The Amount of the Development Charge Payable in Any Particular Case

6.2.1 The rules for determining if development charges are payable in any particular case and for determining the amount of the development charges involved, are set out in the proposed by-law in Appendix H.

6.2.2 The quantum of the development charge which is payable, is as calculated in Appendices B and C and summarized in the Executive Summary and Schedule “B” of the proposed by-law.

6.2.3 The rules for determining if development charges are payable in any particular case are addressed in the by-law and Background Study and deal with matters such as: multiple charges, the connection between servicing needs and development, the list of services for which charges are being imposed, types of development approval triggering the need for the imposition of development charges, the requirements for the installation of local services in addition to payment of the development charge, the method used in calculating development charges for individual developments, the quantum of the charge, the timing of calculation and payment, and the alternative means of payment.

6.3 Development Charge Exemptions

6.3.1 The rules for exemptions, relief and adjustments for the charge are as set out in the proposed by-law in Appendix H and discussed in Appendix G.

6.4 Phasing-in of Development Charges

6.4.1 The rules with respect to the phasing-in of the development charges are set out in the proposed by-law in Appendix H and discussed in Appendix G.

This policy will be based on consideration of the development charge economic impact material in Appendix F, the Long Term Capital and Operating Cost Examination in Appendix E and the public consultation process referenced in section 7.3.

6.5 Indexing of Development Charges

6.5.1 The rules with respect to the indexing of the development charges are as set out in the proposed by-law in Appendix H and discussed in Appendix G. The recommended indexing policy is that the charges be adjusted annually, as of August 1st of each year, commencing

August 1, 2015 in accordance with the Statistics Canada Infrastructure Development Charge Price Index Catalogue 62-007 for Ottawa.

In March 2003, Council adopted a Statistics Canada Infrastructure Development Charges Price Index to replace the use of the Statistics Canada Construction Price Index that is prescribed by the *Development Charges Act, 1997*. The new inflation factor was considered by the City and industry to better reflect the localized benchmark costs for Ottawa. This has resulted, over the past seven years, in the cumulative inflationary rate increases being lower than the prescribed index over the same timeframe.

6.6 The Application of Development Charges to Redevelopment

6.6.1 The rules with respect to redevelopment are as set out in the proposed by-law in Appendix H and discussed in Appendix G. Those credit provisions generally reflect the City's existing policy, except that it is proposed that a 10-year limitation on the time between demolition permit issuance and building permit issuance for the redevelopment be imposed, consistent with general municipal practice and in order to encourage such redevelopment to occur in a timely fashion.

Any demolitions that take place after the passage of the new by-law will be subject to the five-year redevelopment credit expiry period. Credits would remain with the property and would not be transferable to another parcel of land. Demolition allowances would continue to be based on the rate in effect in the active by-law with the overall development charge reduction not exceeding the amount otherwise payable. A credit would not apply, if a building type were legislatively exempt from paying development charges, i.e. school sites.

7. BY-LAW ADOPTION AND IMPLEMENTATION

7. BY-LAW ADOPTION AND IMPLEMENTATION

7.1 Introduction

This Chapter outlines the process that the City has carried out as part of arriving at development charge policy which is fair and legally defensible, financially appropriate, and has had regard for public comments and possible development implications.

7.2 Long Term Capital and Operating Cost Examination

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.

One standard that could be used in scrutinizing the above-referenced costs is the current level of operating costs per capita. Another more detailed standard that goes beyond the specific requirements of the Act, would be the anticipated impact on user rate levels, as determined by the application of a full fiscal impact model.

The revenue to be generated by the DC by-law during its life of up to five years, will be determined by the quantum of the charge, the amount and type of development occurring and the impact of the rules regarding exemptions, phasing in, indexing, land redevelopment, etc. The net stream of revenue which results, in concert with City policy with respect to front-ending agreements and long term debt, will determine the rate at which the City is able to construct the works which underlie the development charge. Consideration of these revenue streams would normally occur as part of the City's annual Capital Budget and Forecasting process.

Appendix E contains the Long Range Capital and Operating Cost examination applicable in this case.

7.3 Consultation

The City established two working groups to participate in the DC process. The Sponsor's Group comprised a number of City Councillor's from various areas of the municipality. The Industry Working Group comprised representatives from B.O.M.A., the Greater Ottawa Home Builders' Association (GOHBA) and other development industry representatives.

An extensive consultation process occurred beginning in December, 2013 and involved detailed examination of all of the key assumptions underlying the development charge calculation. Policy issued reviewed with the Sponsor's Group and Industry Working Group are included in Appendix G.

7.4 The By-law Adoption Process

7.4.1 *Public Meeting of Council*

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 report are made available to the public at least two weeks prior to the (first) meeting.

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

If a proposed by-law is changed following such a meeting, the Council must determine whether a further meeting (under this section) is necessary (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.

7.5 By-law Implementation

7.5.1 *Introduction*

Once the City has calculated the charge, prepared the complete Background Study, carried out the public process and passed a new by-law, the emphasis shifts to implementation matters. These include notices, potential appeals and complaints, credits, front-ending agreements, subdivision agreement conditions and finally the collection of revenues and funding of projects.

The sections which follow, overview requirements in each case.

7.5.2 *Notice of Passage*

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 not later than 20 days after the day the by-law is passed (i.e. as of the day of newspaper publication or the mailing of the notice).

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

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

7.5.3 By-law Pamphlet

In addition to the "notice" information, the municipality 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 charges relate; and
- a general description of the general purpose of the Treasurer's statement and where it may be received by the public.

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

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

7.5.4 Appeals

Sections 13-19 of the DCA, 1997 set out requirements relative to 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.

7.5.5 Complaints

A person required to pay a development charge, or his agent, may complain to the City 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 Municipal Council to the OMB.

7.5.6 Front-Ending Agreements

The City and one or more landowners may enter into a front-ending agreement, which provides for the costs of a project, which will benefit an area in the municipality 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 and removes some of the obstacles to their use, which were contained in the DCA, 1989. Accordingly, the City assesses whether this mechanism is appropriate for its use, as part of funding projects prior to City funds being available.

7.5.7 Severance and Subdivision Agreement Conditions

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 relates, to be installed or paid for by the owner as a condition of approval under section 51 of the *Planning Act*,”
- “local services to be installed or paid for by the owner as a condition of approval under Section 53 of the *Planning Act*.”

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

APPENDIX A

ANTICIPATED DEVELOPMENT

IN OTTAWA 2014-2031

APPENDIX A - ANTICIPATED DEVELOPMENT IN OTTAWA 2014-2031

Introduction

As prescribed in the DCA, the development forecasts prepared by the City of Ottawa estimate “The anticipated amount, type and location of development, for which development charges can be imposed....” More specifically, projections of future population, housing units by type, and gross floor area (commercial, industrial and institutional) were prepared by geographic area. All projections represent mid-year of the particular time horizon and are consistent with the Official Plan (OP) growth projections adopted by City Council in November, 2007.

The development forecasts made extensive use of Statistics Canada data and analysis provided by the City of Ottawa. Results of the 2011 Census, adjusted for undercounting, in combination with building permit issuances for 2011 onward were used to determine the base year population and dwelling units by type and geographic area.¹ The 2011 Census and 2011 National Household Survey (NHS) provided average household size estimate (persons per unit) by dwelling unit type. The 2012 City of Ottawa Employment Survey provided employment information by sector. Lastly, the forecasts prepared for the OP growth projections and subsequent internal analysis undertaken by the City provided the estimates of growth by area, including dwelling unit growth by type and employment growth by sector.

Because the intermediate years of the OP projections (2011 and 2021) are different from the DC years (2014 and 2024), the projected timing of growth was prorated to each time period. Using the City-wide forecasts, development by geographic area for each DC time horizon was determined by adding the assumed share of growth to the 2014 base data.

The above process also provided projected employment and gross floor area (GFA) by sector. The employment forecasts were converted to projected GFA by sector using the following assumptions, which were based on an analysis of employment and building floor areas provided by the City and cross-checked by Watson & Associates. This generated a square foot per employee figure of 350 for commercial, 900 for industrial and 400 for institutional. Also included were vacancy rates of 10% for commercial and industrial space, and 0% for institutional, assumed across the City. These assumptions were then applied to the projected employment levels. Projected GFA was calculated to include and exclude work at home and no fixed place of work (NFPOW). According to Statistics Canada, NFPOW employment is defined as “persons who do not go from home to the same work place location at the beginning of each shift. Such persons include building and landscape contractors, traveling salespersons, independent truck drivers, etc.”

¹ Derived by the City of Ottawa estimates.

City-Wide Growth, Occupancy and Density Assumptions

Discussion of Tables and Figures

- Table A1 provides Census information for Ottawa for all Census years from 1986 to 2011. This information is presented to provide an indication of population trends and in particular, household size. The population in private households (which excludes institutional population), along with the number of private households, are used to calculate the persons per unit (PPU). The change in PPU from 1986 to 2011, together with the age structure of the population, is used to estimate the rate of decline in the occupancy of existing housing units.
- Table A2 provides information on the age structure of the population of the City of Ottawa. This information is used to assist in the determination of PPU assumptions for the forecast.
- Table A3 provides PPU assumptions allocated by geographic area and dwelling type.
- Figure A-1 illustrates the assumptions with respect to typical household occupancy over time for a single-detached unit. Information on average occupancy patterns is required to determine potential differences in the cost of servicing and to provide an equitable means of differentiating development charges by type of unit. An average or “diversified” occupancy figure is used, as it is not possible to anticipate variations in ownership and family composition on an individual unit basis. It is noted that the occupancy averages applicable to recently constructed units will differ from those which apply to the overall occupancy average for the City, as recently constructed units typically have a higher PPU average than older units.
- The overall PPU average in any municipality incorporates persons per household in recently constructed units, but largely reflects the occupancy of older, in many cases much older, units which make up the bulk of the housing stock. Figure A-1 illustrates the typical household occupancy cycle for a single-detached house occupied by a family. It indicates that average household size is typically lower for younger adults at about 2.0 PPU and typically peaks to approximately 3.5 PPU with the addition of children. This is followed by a levelling off period, in terms of occupancy, as the children grow up. Subsequently, the young adults depart the home to eventually establish their own households. This typically leaves a one or two-person household (empty nester) until the household is eventually turned over to a new family.

Table A1
City of Ottawa Population and Occupied Private Dwellings Unit Total, 1986-2011

	1986	1991	1996	2001	2006	2011
Total Census Population	606,639	678,147	721,136	774,072	812,129	883,391
Total Number of Persons in Private Households	591,490	661,935	708,135	761,160	797,515	867,090
Total Number of Occupied Private Dwellings	228,140	259,830	279,566	301,775	321,100	353,245
Persons Per Private Household	2.59	2.55	2.53	2.52	2.48	2.45

Note: Total number of private households excludes institutional residents.

Source: Statistics Canada, 1986, 1991, 1996, 2001, 2006 and 2011 Census of Canada

Table A2
City of Ottawa Population Age Profile, 1986-2011

Age Group	Population					
	1986	1991	1996	2001	2006	2011
0-14	114,795	130,840	143,335	146,145	142,750	148,570
15-24	103,035	97,750	94,910	103,120	113,085	124,265
25-44	212,935	247,175	247,015	251,660	238,555	243,615
45-64	116,915	131,515	155,675	184,150	216,865	250,355
65+	58,950	70,860	80,155	88,990	100,860	116,585
Total	606,630	678,140	721,090	774,065	812,115	883,390

Source: Statistics Canada, 1986, 1991, 1996, 2001, 2006 and 2011 Census of Canada.

Age Group	Percent of Population by Age Group					
	1986	1991	1996	2001	2006	2011
0-14	18.9%	19.3%	19.9%	18.9%	17.6%	16.8%
15-24	17.0%	14.4%	13.2%	13.3%	13.9%	14.1%
25-44	35.1%	36.4%	34.3%	32.5%	29.4%	27.6%
45-64	19.3%	19.4%	21.6%	23.8%	26.7%	28.3%
65+	9.7%	10.4%	11.1%	11.5%	12.4%	13.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Age Group	Percentage Population Change by Age Group				
	1986-91	1991-96	1996-01	2001-06	2006-11
0-14	14.0%	9.5%	2.0%	-2.3%	4.1%
15-24	-5.1%	-2.9%	8.7%	9.7%	9.9%
25-44	16.1%	-0.1%	1.9%	-5.2%	2.1%
45-64	12.5%	18.4%	18.3%	17.8%	15.4%
65+	20.2%	13.1%	11.0%	13.3%	15.6%
Total	11.8%	6.3%	7.3%	4.9%	8.8%

Note: Totals may vary due to rounding.

Source: Statistics Canada, 1986, 1991, 1996, 2001, 2006 and 2011 Census of Canada.

Table A3
Persons per Unit by Dwelling Type and by Geographic Area

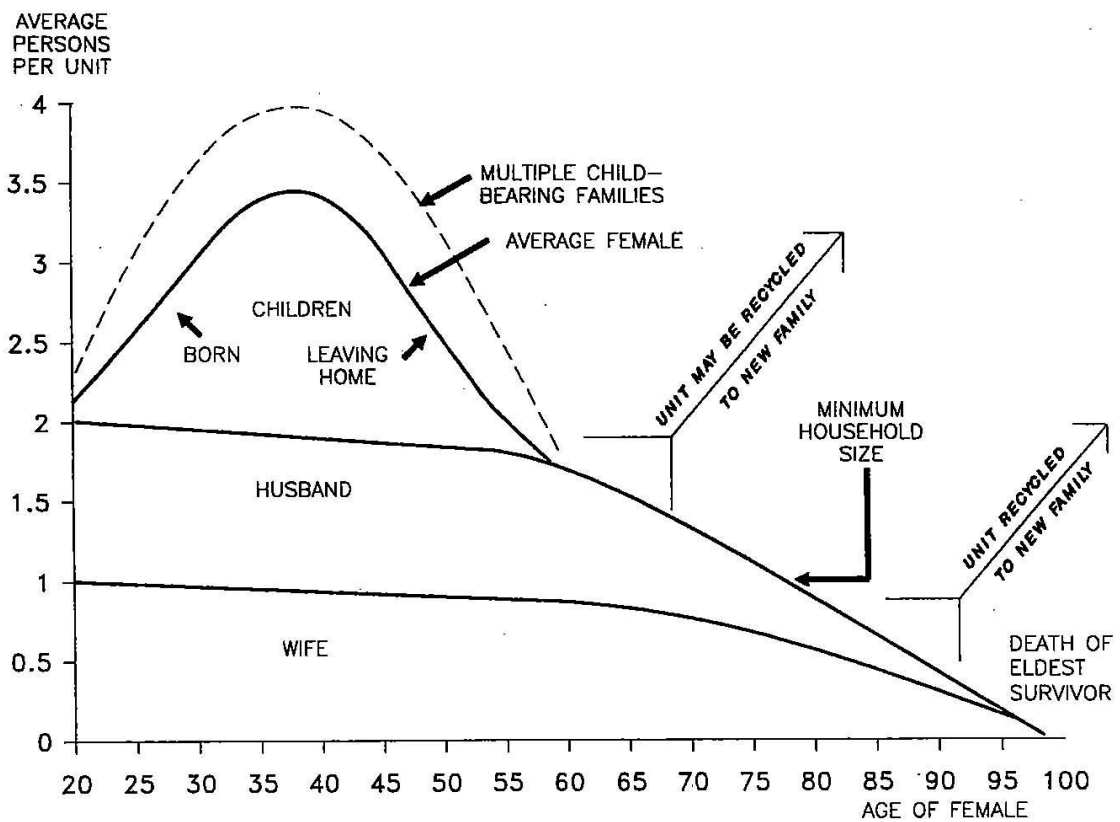
	City-Wide	Inside Greenbelt	Outside Greenbelt West	Outside Greenbelt South	Outside Greenbelt East	Outside Greenbelt Total	Rural
Single-detached	3.42	3.36	3.57	3.52	3.39	3.50	3.17
Semi-detached	2.69	2.73	2.39	2.93	2.67	2.72	2.69
Townhouse	2.52	2.42	2.53	2.61	2.60	2.58	2.06
Apartments 2 Bedrooms & Larger	1.82	1.82	1.82	1.82	1.82	1.82	1.82
Apartments Less Than 2 Bedrooms	1.34	1.34	1.34	1.34	1.34	1.34	1.34

Notes:

1. Due to limitations in the data, PPU for apartments in all areas are based on City-wide averages.
2. Due to small sample size, PPU for Semi-Detached in the rural area is based on the City-Wide average.
3. Numbers may not add precisely due to data suppression.

Sources: Based on Census and 2011 NHS using a 15-year average PPU, custom tabulation; Research and Forecasting Unit, Planning and Growth Management, City of Ottawa

FIGURE A-1
TYPICAL ONTARIO HOUSING
OCCUPANCY CYCLE
FOR SINGLE DETACHED UNITS



-
- The result of this pattern is that recently constructed housing units (particularly those constructed during the past decade) typically have a higher average PPU than older units. Variances occur, depending on whether developments are marketed to renters, first time buyers, the move-up market or retirees. Development charges policy is directed toward financing the cost of services required by new development and is therefore focused on average occupancies of new housing units constructed over the growth forecast period (i.e., 10-year and 17-year periods).
 - Table CW1 summarizes the residential population forecast for 2014-2031. The total population increase is determined by adding the projected growth for the two time periods, 2014-2024 and 2024-2031. The starting population for each time period is projected to the final population by taking additional units, multiplied by a weighted (new unit) PPU assumption for the City. This produces a “gross” population increase, the average number of people that will occupy the newly constructed units. The anticipated decline in the occupancy of existing housing units is estimated in order to determine the population decrease in existing units. This population decline is then subtracted from the “gross” population increase, yielding the expected “net” or actual population growth. Table CW1 provides the details of this calculation for the City as a whole and also for the transit service area, the water/sewer service areas and unserved rural area.
 - Table CW2 presents population and total dwelling unit projections for the City of Ottawa by sub-area for 2014, 2024 and 2031. The dwelling unit projections are for total private dwelling units and do not include collective or institutional dwellings (i.e., nursing homes, prisons, shelters and other lodging with assistance services, consistent with Statistics Canada’s 2011 Census definition. Similarly, the number of dwelling units required for non-permanent residents (i.e., diplomats, military personnel, parliamentarians, etc.) are also classified as “institutional” development.
 - Table CW3 provides total dwelling unit projections by type of dwelling unit and sub-area for each time period. This information is used in the determination of the weighted average persons per unit for new dwelling units. Table CW4 follows from Table CW3 and summarizes the growth in total dwelling units by type for each of the sub-areas.
 - Tables CW5 and CW6 provide projected employment in the City of Ottawa, along with the forecast increase in gross floor area (GFA) by sector. Table CW5 summarizes forecast total employment growth and employment growth associated with non-residential GFA (i.e. total employment less work at home and NFPOW). As summarized in Table CW5, forecast GFA excludes work at home and NFPOW employment. Table CW6 summarizes total forecast employment including work at home and NFPOW. In Table CW6, work at home and NFPOW employment has been included in the employment and GFA forecast as these employees are embedded in the 2012 Infrastructure Master Plan employment forecast which forms the basis for service needs related to water, sewer and stormwater and corresponding capital costs requirements.

- Since work at home employment and NFPOW employment has been included in the capital cost estimates for water, sewer and stormwater (i.e. the numerator), this employment has also been included in the GFA forecast (i.e. the denominator) to ensure that the DC for these services is not overstated.

Table CW1
City of Ottawa Population Increase in New Housing Units, 2014-2024-2031

	City Wide Total	Transit Area	Serviced Water Area	Serviced Sewer Area	Serviced Water and Sewer Area	Unserviced Rural Area
Population as of Mid-2014	948,881	855,250	857,295	859,848	861,406	80,832
Occupants of New Housing Units						
2014 Total Units	400,330	367,335	368,033	369,002	369,465	28,500
2024 Total Units	460,349	422,176	422,964	424,218	426,545	30,974
Total New Units 2014-2024	60,019	54,841	54,931	55,216	57,080	2,474
% of New Units- Single Detached	34%	29%	29%	29%	31%	100%
% of New Units- Semi-Detached	4%	4%	4%	4%	4%	0%
% of New Units- Row	27%	29%	29%	29%	28%	0%
% of New Units- Apartment	34%	37%	37%	37%	36%	0%
Weighted Average Persons Per Unit	2.50	2.44	2.44	2.45	2.48	3.16
Total Gross Population Increase- 2014-2024	149,903	133,829	134,142	135,007	141,297	7,826
Decline in Housing Units Occupancy 2014-2024						
2014 Total Units	400,330	367,335	368,033	369,002	369,465	28,500
Assumed Persons Unit Decline	0.06	0.06	0.06	0.06	0.05	0.08
Total Population Decline in Existing (2014) Units	34,728	30,114	30,142	30,197	30,708	3,340
Population as of Mid-2024	1,064,056	958,965	961,295	964,658	971,995	85,318
Net Population Increase 2014-2024	115,175	103,715	104,000	104,810	110,589	4,486
Population as of Mid-2024	1,064,056	958,965	961,295	964,658	971,995	85,318
Occupants of New Housing Units						
2014 Total Units	400,330	367,335	368,033	369,002	369,465	28,500
2031 Total Units	497,041	455,746	456,582	457,998	461,744	32,209
Total New Units 2014-2031	96,711	88,411	88,549	88,996	92,279	3,709
% of New Units- Single Detached	33%	27%	27%	28%	30%	99%
% of New Units- Semi-Detached	4%	4%	4%	4%	4%	0%
% of New Units- Row	26%	28%	28%	28%	27%	0%
% of New Units- Apartment	37%	41%	41%	41%	39%	0%
Weighted Average Persons Per Unit	2.45	2.45	2.39	2.40	2.43	3.16
Total Gross Population Increase- 2014-2031	237,102	211,308	211,789	213,169	224,145	11,728
Decline in Housing Units Occupancy 2014-2031						
2031 Total Units	497,041	455,746	456,582	457,998	461,744	32,209
Assumed Persons Unit Decline	0.09	0.08	0.08	0.08	0.08	0.19
Total Population Decline in Existing (2024) Units	50,142	42,692	42,737	42,832	43,738	7,490
Population as of Mid-2031	1,135,841	1,023,866	1,026,347	1,030,185	1,041,813	85,070
Net Population Increase 2014-2031	186,960	168,616	169,052	170,337	180,407	4,238
Population as of Mid-2031	1,135,841	1,023,866	1,026,347	1,030,185	1,041,813	85,070

Notes:

- 1) 2014 population and dwelling units are based on short-term projections. 2024 and 2031 population and dwelling unit projections are based on City of Ottawa, "Growth Projections for Ottawa: Prospects for Population, Housing and Jobs 2006-2031," November 2007.
- 2) To determine the weighted average person persons per unit (PPU) the following assumptions were made: Single Detached 3.42, semi-detached 2.69, Row 2.52 and Apartment 1.34 to 1.82. These PPUs are based on Census data using a 15-year average of units built in Ottawa. For the development charge calculation, it was necessary to determine the average PPU for small (bachelor and 1 bedroom) and large (2+ bedroom apartments and 2+ bedroom duplexes) apartments. These figures (1.34 for small apartments and 1.82 for large apartments) are based on the average PPU, from Census information, for these types of units built in Ottawa between 1996 and 2011.
- 3) The assumption that the PPU in the existing housing stock will decline is based on the observed trend in Ottawa. From 1986 to 2011 the Census average number of persons per unit declined from 2.59 to 2.45. Decline occurs due to aging of the population and life cycle changes, lower fertility rates and changing economic conditions.
- 4) The transit area is defined as the urban area of Ottawa.
- 5) The serviced water area is defined as the urban area of Ottawa plus the villages of Notre-Dame-des-Champs, Carlsbad Springs, Vars, Marionville and South Gloucester rural area.
- 6) The serviced sewer area is defined as the urban area of Ottawa plus parts of the village of Richmond not included in 7).
- 7) The serviced sewer and water area is defined as the urban area of Ottawa plus parts of the village of Richmond (Western Development Lands and King's Landing), the serviced portions of the village of Manotick, Shadow Ridge in Greely, and the villages of Carp and Munster.
- 8) The unserviced rural area is defined as the rural area of Ottawa excluding the villages listed in 5), 6) and 7).
- 9) Totals may vary due to rounding.

Sources: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa; Watson & Associates

Table CW2
City of Ottawa, Total Dwellings and Population, 2014, 2024 and 2031

	Dwelling Units			Population			Dwelling Unit Growth		Population Growth	
	2014	2024	2031	2014	2024	2031	2014-2024	2014-2031	2014-2024	2014-2031
Inside Greenbelt	246,011	270,024	286,819	529,498	570,377	598,155	24,014	40,808	40,880	68,658
Urban Outside Greenbelt	121,324	152,152	168,927	325,753	388,588	425,711	30,828	47,603	62,835	99,958
Rural	32,995	38,173	41,295	93,631	105,090	111,974	5,178	8,300	11,460	18,343
City of Ottawa	400,330	460,349	497,041	948,881	1,064,056	1,135,840	60,019	96,711	115,175	186,959
% Inside Greenbelt	61.5%	58.7%	57.7%	55.8%	53.6%	52.7%	40.0%	42.2%	35.5%	36.7%
% Urban Outside Greenbelt	30.3%	33.1%	34.0%	34.3%	36.5%	37.5%	51.4%	49.2%	54.6%	53.5%
% Rural	8.2%	8.3%	8.3%	9.9%	9.9%	9.9%	8.6%	8.6%	9.9%	9.8%

Notes:

- 1) All figures represent mid-year.
- 2) Projections are based on the sources noted in footnote 1 to Table CW1.
- 3) Totals may vary due to rounding.

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa

Table CW3
City of Ottawa, New Dwelling Units by Type, 2014-2031

	2014					2024					2031				
	Single	Semi	Row	Apt	Total	Single	Semi	Row	Apt	Total	Single	Semi	Row	Apt	Total
Inside Greenbelt	70,666	14,457	41,530	119,357	246,011	71,746	15,298	45,373	137,608	270,024	72,297	15,682	47,244	151,597	286,819
Urban Outside Greenbelt	65,040	7,964	38,230	10,090	121,324	79,838	9,506	50,407	12,402	152,152	87,414	10,344	57,271	13,898	168,927
Rural	31,241	426	512	816	32,995	36,056	452	719	945	38,173	38,877	467	927	1,023	41,295
City of Ottawa	166,947	22,847	80,272	130,263	400,330	187,640	25,255	96,498	150,955	460,349	198,588	26,493	105,442	166,518	497,041
% Inside Greenbelt	42.3%	63.3%	51.7%	91.6%	61.5%	38.2%	60.6%	47.0%	91.2%	58.7%	36.4%	59.2%	44.8%	91.0%	57.7%
% Urban Outside Greenbelt	39.0%	34.9%	47.6%	7.7%	30.3%	42.5%	37.6%	52.2%	8.2%	33.1%	44.0%	39.0%	54.3%	8.3%	34.0%
% Rural	18.7%	1.9%	0.6%	0.6%	8.2%	19.2%	1.8%	0.7%	0.6%	8.3%	19.6%	1.8%	0.9%	0.6%	8.3%

Notes:

- 1) All figures represent mid-year
- 2) Projections are based on the sources noted in footnote 1 to Table CW1
- 3) Inner Area Includes the Central Area and Inner Area sub-areas
- 4) Totals may vary due to rounding

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa

Table CW4
City of Ottawa, New Dwelling Units by Type, 2014-2031

	2014 - 2024					2014 - 2031				
	Single	Semi	Row	Apt	Total	Single	Semi	Row	Apt	Total
Inside Greenbelt	1,081	840	3,842	18,250	24,014	1,631	1,224	5,713	32,239	40,808
Urban Outside Greenbelt	14,797	1,541	12,177	2,312	30,828	22,374	2,380	19,041	3,808	47,603
Rural	4,815	26	207	129	5,178	7,636	41	415	207	8,300
City of Ottawa	20,693	2,408	16,226	20,692	60,019	31,640	3,646	25,170	36,255	96,711
% Inside Greenbelt	5.2%	34.9%	23.7%	88.2%	40.0%	5.2%	33.6%	22.7%	88.9%	42.2%
% Urban Outside Greenbelt	71.5%	64.0%	75.0%	11.2%	51.4%	70.7%	65.3%	75.7%	10.5%	49.2%
% Rural	23.3%	1.1%	1.3%	0.6%	8.6%	24.1%	1.1%	1.6%	0.6%	8.6%

Notes:

- 1) All figures represent mid-year
- 2) Projections are based on the sources noted in footnote 1 to Table CW1
- 3) Totals may vary due to rounding

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa

Table CW5
City of Ottawa, Employment and GFA Projections, 2014-2031
GFA Excludes Work at Home and No Fixed Place of Work Employment

	2014-2024					
	Total Employment Growth	Total Employment Growth Associated with Non-Residential GFA	GFA (sq. ft.)			
			Commercial	Industrial	Institutional	Total
City of Ottawa	74,043	59,889	16,966,204	5,899,527	4,144,899	27,010,630

	2014-2031					
	Total Employment Growth	Total Employment Growth Associated with Non-Residential GFA	GFA (sq. ft.)			
			Commercial	Industrial	Institutional	Total
City of Ottawa	117,297	95,094	26,893,875	9,322,982	6,645,978	42,862,835

Notes:

1. All figures represent mid-year.
2. Assumes 350 sq. ft/employee for commercial, 900 industrial, and 400 institutional, and vacancy rates of 10% commercial, 10% industrial and 0% institutional.
3. Figures make no allowance for redevelopment or reoccupancy of vacant space.
4. Projected GFA is adjusted to remove work at home jobs and other employment that does not generate GFA.
5. Non-Residential GFA derived from employment excluding work at home and no fixed place of work.
6. Total Employment Growth includes work at home and no fixed place of work employment.
7. Total Employment Growth Associated with Non-Residential GFA excludes work at home and no fixed place of work employment.

Sources: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa; Watson & Associates

**Table CW6
City of Ottawa, Employment and GFA Projections, 2014-2031
GFA Includes Work at Home and No Fixed Place of Work Employment**

	2014-2024				
	Total Employment Growth	GFA (sq. ft.)			
		Commercial	Industrial	Institutional	Total
City of Ottawa	74,043	19,038,017	10,324,847	5,120,320	34,483,185

	2014-2031				
	Total Employment Growth	GFA (sq. ft.)			
		Commercial	Industrial	Institutional	Total
City of Ottawa	117,297	29,964,741	15,717,251	8,177,866	53,859,858

Notes:

1. All figures represent mid-year.
2. Assumes 350 sq. ft/employee for commercial, 900 industrial, and 400 institutional, and vacancy rates of 10% commercial, 10% industrial and 0% institutional.
3. Figures make no allowance for redevelopment or reoccupancy of vacant space.
4. Figures include employment and GFA for no fixed place of work and work at home employment.

Sources: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa; Watson & Associates

Area-Specific Growth, Occupancy and Density Assumptions

Discussion of Tables and Figures

- The material provided in this section comes from the City-wide projections and simply presents the same material for a different set of sub-areas within Ottawa. All calculations were carried out in an identical fashion as those described earlier in this appendix. Persons per unit assumptions, outlined in the discussion of the City-wide projections, also apply to the Area-Specific calculations and therefore the details are not repeated here.
- Table AS1 summarizes the residential population forecast for each of the Area-Specific sub-areas for 2014-2031. The details of the calculations can be found in the discussion of the City-wide forecasts.
- Table AS2 presents population and total dwelling unit projections for sub-areas of Ottawa. These projections are provided for 2014, 2024 and 2031.
- Tables AS3 and AS4 summarize projected dwelling unit growth by type of dwelling for each of the areas.
- Tables AS5 and AS6 provide the details of the projected population and dwelling units for the serviced and unserviced portions of rural Ottawa.
- Table AS7 lists projected employment and the forecast increase in gross floor area (GFA) for serviced and unserviced areas of rural Ottawa.
- Table AS8 summarizes projected employment and the forecast increase in gross floor area (GFA) for serviced and unserviced areas of rural Ottawa for 2014-2024 and 2014-2031.
- Tables AS9 and AS10 summarize projected employment and the forecast increase in gross floor area (GFA) for service sub-areas of Ottawa for 2014-2024 and 2014-2031.

Table AS1
City of Ottawa Area Specific Population Increase in New Housing Units, 2014-2031

	Inside Greenbelt	Urban Outside Greenbelt	Rural
Population as of Mid-2014	529,498	325,753	93,631
2014 Total Units	246,011	121,324	32,995
2024 Total Units	270,024	152,152	38,173
Total Units- 2014-2024	24,014	30,828	5,178
% of New Units- Single Family	5%	48%	93%
% of New Units- Semi-Detached	4%	5%	1%
% of New Units- Row	16%	40%	4%
% of New Units- Apartment	76%	8%	3%
Weighted Average Persons Per Unit	1.80	2.95	3.08
Total Gross Population 2014-2024	43,170	90,800	15,933
Decline in Housing Unit Occupancy 2014-2024			
2014 Total Units	246,011	121,324	32,995
Assumed Persons Per Unit Decline	0.04	0.13	0.08
Total Population Decline in Existing (2014) Units	2,290	27,964	4,474
Population as of Mid-2024	570,377	388,588	105,090
Net Population Increase 2014-2024	40,880	62,835	11,460
Population as of Mid-2024	570,377	388,588	105,090
Occupants of New Housing Units			
2014 Total Units	246,011	121,324	32,995
2031 Total Units	286,819	168,927	41,295
Total New Units 2014-2031	40,808	47,603	8,300
% of New Units- Single Family	4%	47%	92%
% of New Units- Semi-Detached	3%	5%	1%
% of New Units- Row	14%	40%	5%
% of New Units- Apartment	79%	8%	3%
Weighted Average Persons Per Unit	1.77	2.94	3.07
Total Gross Population 2014-2031	72,055	139,587	25,460
Decline in Housing Unit Occupancy 2014-2031			
2031 Total Units	286,819	168,927	41,295
Assumed Persons Per Unit Decline	0.03	0.03	0.04
Total Population Decline in Existing (2024) Units	3,397	39,628	7,116
Population as of Mid-2031	598,155	425,711	111,974
Net Population Increase 2014-2031	68,658	99,958	18,343
Population as of Mid-2031	598,155	425,711	111,974

Notes:

1) 2014 population and dwelling units are based on short-term projections. 2024 and 2031 population and dwelling unit projections are based on City of Ottawa, "Growth Projections for Ottawa: Prospects for Population, Housing and Jobs 2006-2031," November 2007.

2) To determine the weighted average person persons per unit (PPU) the following assumptions were made: Single Detached 3.42 p.p.u, semi-detached 2.69, Row 2.52 and Apartment 1.34 to 1.82. These PPU's are based on Census data using a 15-year average of units built in Ottawa. The PPU's are then multiplied by the projected unit type distribution to determine the weighted average PPU in the new units. For the development charge calculation, it was necessary to determine the average PPU for small (bachelor and 1 bedroom) and large (2+ bedroom apartments and 2+ bedroom duplexes) apartments. These figures (1.34 for small apartments and 1.82 for large apartments) are based on the average PPU, from Census information, for these types of units built in Ottawa between 1996 and 2011.

3) The assumption that the PPU in the existing housing stock will decline is based on the observed trend in Ottawa. From 1986 to 2011 the Census average number of persons per unit declined from 2.59 to 2.45. Decline occurs due to aging of the population and life cycle changes, lower fertility rates and changing economic conditions.

4) Totals may vary due to rounding.

Sources: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa; Watson & Associates

Table AS2 City of Ottawa Area-Specific, Total Dwellings and Population, 2014, 2024 and 2031

	Dwelling Units			Population			Dwelling Unit Growth		Population Growth	
	2014	2024	2031	2014	2024	2031	2014-2024	2014-2031	2014-2024	2014-2031
Inside Greenbelt	246,011	270,024	286,819	529,498	570,377	598,155	24,014	40,808	40,880	68,658
Urban Outside Greenbelt	121,324	152,152	168,927	325,753	388,588	425,711	30,828	47,603	62,835	99,958
Rural	32,995	38,173	41,295	93,631	105,090	111,974	5,178	8,300	11,460	18,343
City of Ottawa	400,330	460,349	497,041	948,881	1,064,056	1,135,840	60,019	96,711	115,175	186,959

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa

Table AS3 City of Ottawa Area-Specific, Total Dwellings Units by Type, 2014-2031

Area	2014					2024				
	Single	Semi	Row	Apt	Total	Single	Semi	Row	Apt	Total
Inside Greenbelt	70,666	14,457	41,530	119,357	246,011	71,746	15,298	45,373	137,608	270,024
Urban Outside Greenbelt	65,040	7,964	38,230	10,090	121,324	79,838	9,506	50,407	12,402	152,152
Rural	31,241	426	512	816	32,995	36,056	452	719	945	38,173
City of Ottawa	166,947	22,847	80,272	130,263	400,330	187,640	25,255	96,498	150,955	460,349

Area	2031				
	Single	Semi	Row	Apt	Total
Inside Greenbelt	72,297	15,682	47,244	151,597	286,819
Urban Outside Greenbelt	87,414	10,344	57,271	13,898	168,927
Rural	38,877	467	927	1,023	41,295
City of Ottawa	198,588	26,493	105,442	166,518	497,041

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa

Table AS4 City of Ottawa Area-Specific, New Dwelling Units by Type, 2014-2031

Area	2014-2024					2014-2031				
	Single	Semi	Row	Apt	Total	Single	Semi	Row	Apt	Total
Inside Greenbelt	1,081	840	3,842	18,250	24,014	1,631	1,224	5,713	32,239	40,808
Urban Outside Greenbelt	14,797	1,541	12,177	2,312	30,828	22,374	2,380	19,041	3,808	47,603
Rural	4,815	26	207	129	5,178	7,636	41	415	207	8,300
City of Ottawa	20,693	2,408	16,226	20,692	60,019	31,640	3,646	25,170	36,255	96,711

Notes for AS2 to AS4:

1) All figures represent mid-year.

2) 2014 population and dwelling units are based on short-term projections. 2024 and 2031 population and dwelling unit projections are based on City of Ottawa, "Growth Projections for Ottawa: Prospects for Population, Housing and Jobs 2006-2031," November 2007.

3) Totals may vary due to rounding.

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa

Table AS5 City of Ottawa Rural Total Dwelling Units and Population, 2014, 2024 and 2031

Area	Dwelling Units			Population			Dwelling Unit Growth		Population Growth	
	2014	2024	2031	2014	2024	2031	2014-2024	2014-2031	2014-2024	2014-2031
Rural Serviced Water Area	698	788	836	2,045	2,330	2,481	90	138	285	436
Rural Serviced Sewer Area	1,667	2,042	2,252	4,598	5,693	6,319	375	585	1,095	1,721
Rural Serviced Water and Sewer Area	2,130	4,369	5,998	6,156	13,030	17,947	2,239	3,868	6,874	11,791
Total Rural Serviced	4,495	7,199	9,086	12,799	21,053	26,747	2,704	4,591	8,254	13,948
Total Rural Unserviced	28,500	30,974	32,209	80,832	84,037	85,227	2,474	3,709	2,742	4,065
Total Rural	32,995	38,173	41,295	93,631	105,090	111,974	5,178	8,300	10,996	18,013

Table AS6 City of Ottawa Rural New Dwelling Units by Type, 2014-2031

Area	2014-2024					2014-2031				
	Single	Semi	Row	Apt	Total	Single	Semi	Row	Apt	Total
Rural Serviced Water Area	90	0	0	0	90	138	0	0	0	138
Rural Serviced Sewer Area	310	0	0	65	375	495	0	0	90	585
Rural Serviced Water and Sewer Area	1,951	26	207	55	2,239	3,317	38	405	108	3,868
Total Rural Serviced	2,351	26	207	120	2,704	3,950	38	405	198	4,591
Total Rural Unserviced	2,464	0	0	9	2,473	3,685	4	10	9	3,708
Total Rural	4,815	26	207	129	5,177	7,635	42	415	207	8,299

Notes for AS5 and AS6:

- 1) All figures represent mid-year.
- 2) Projections are based on the sources noted in footnote 1 to Table CW1.
- 3) The serviced water area is defined as the urban area of Ottawa plus the villages of Vars, Carlsbad Springs, Marionville and Notre-Dame-des-Champs and the South Gloucester rural area.
- 4) The serviced sewer area is defined as the urban area of Ottawa plus parts of the village of Richmond not included in footnote 5).
- 5) The serviced sewer and water area is defined as the urban area of Ottawa plus parts of the village of Richmond (Western Development Lands and King's Landing), the serviced portions of the village of Manotick, Shadow Ridge in Greely, and the villages of Carp and Munster.

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa

Table AS7
City of Ottawa Rural Total Gross Floor Area (GFA), 2014, 2024 and 2031

Area	2014				
	Total Employment	GFA (sq.ft.)			
		Commercial	Industrial	Institutional	Total
Rural Serviced Water Area	2,905	355,854	503,977	33,643	893,474
Rural Serviced Sewer Area	1,059	226,885	109,568	69,760	406,212
Rural Serviced Water and Sewer Area	2,144	508,146	145,927	73,322	727,395
Total Rural Serviced	6,108	1,090,884	759,471	176,725	2,027,081
Total Rural Unserviced	20,164	2,907,959	4,307,153	659,984	7,875,095
Total Rural	26,272	3,998,843	5,066,625	836,708	9,902,176

Area	2024				
	Total Employment	GFA (sq.ft.)			
		Commercial	Industrial	Institutional	Total
Rural Serviced Water Area	3,646	404,775	621,620	34,864	1,061,259
Rural Serviced Sewer Area	1,290	287,539	105,444	71,680	464,663
Rural Serviced Water and Sewer Area	2,734	643,782	191,936	78,000	913,717
Total Rural Serviced	7,670	1,336,095	919,000	184,543	2,439,639
Total Rural Unserviced	23,736	3,394,393	4,801,406	702,251	8,898,050
Total Rural	31,406	4,730,489	5,720,406	886,795	11,337,689

Area	2031				
	Total Employment	GFA (sq.ft.)			
		Commercial	Industrial	Institutional	Total
Rural Serviced Water Area	4,275	460,138	719,350	36,278	1,215,766
Rural Serviced Sewer Area	1,381	308,599	102,086	70,093	480,779
Rural Serviced Water and Sewer Area	3,176	745,431	226,018	82,359	1,053,808
Total Rural Serviced	8,832	1,514,168	1,047,454	188,731	2,750,353
Total Rural Unserviced	26,168	3,733,748	5,139,156	737,167	9,610,070
Total Rural	35,000	5,247,916	6,186,610	925,897	12,360,423

Notes:

1. All figures represent mid-year.
2. Rural Serviced Water Area is defined as the serviced portion of South Gloucester and the the villages of Notre-Dame-de-Champs, Carlsbad Springs, Vars and Marionville.
3. Rural Serviced Sewer Area is defined as the parts of the village of Richmond not included in 4).
4. Rural Serviced Water and Sewer Area is defined as the serviced portion of Manotick and the villages of Munster and Carp and parts of the village of Richmond (Western Development lands and King's Landing).
5. Total Employment includes No Fixed Place of Work and Work at Home Employment.
6. GFA (sq. ft.) excludes No Fixed Place of Work and Work at Home Employment.

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa

Table AS8
City of Ottawa Rural Total Gross Floor Area (GFA), 2014-2024 and 2014-2031

Area	2014-2024					2014-2031				
	Total Employment	GFA (sq. ft.)			Total	Total Employment	GFA (sq. ft.)			Total
		Commercial	Industrial	Institutional			Commercial	Industrial	Institutional	
Rural Serviced Water Area	741	48,921	117,644	1,221	167,785	1,370	104,284	215,373	2,635	322,292
Rural Serviced Sewer Area	231	60,654	-4,124	1,920	58,451	322	81,715	-7,481	333	74,567
Rural Service Water & Sewer Area	591	135,636	46,009	4,678	186,323	1,032	237,285	80,091	9,038	326,414
Total Rural Serviced	1,562	245,211	159,529	7,819	412,559	2,724	423,284	287,983	12,006	723,273
Total Rural Unserviced	3,572	486,435	494,253	42,268	1,022,955	6,004	825,789	832,003	77,183	1,734,975
Total Rural	5,134	731,646	653,781	50,086	1,435,513	8,728	1,249,073	1,119,985	89,189	2,458,247

Notes:

1. All figures represent mid-year.
2. Rural Serviced Water Area is defined as the serviced portion of South Gloucester and the villages of Notre-Dame-de-Champs, Carlsbad Springs, Vars and Marionville.
3. Rural Serviced Sewer Area is defined as the parts of the village of Richmond not included in 4).
4. Rural Serviced Water and Sewer Area is defined as the serviced portion of Manotick and the villages of Munster and Carp and parts of the village of Richmond (Western Development lands and King's Landing).
5. Total Employment Growth includes No Fixed Place of Work and Work at Home Employment.
6. GFA excludes No Fixed Place of Work and Work at Home.
7. Assumes 350 sq. ft./employee for commercial, 900 industrial and 400 institutional and vacancy rates of 10% commercial, 10% industrial and 0% institutional.

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa; Watson & Associates Economists Ltd.

Table AS9 City of Ottawa Gross Floor Area (GFA) Growth, 2014-24 and 2014-31
GFA Excludes Work at Home and No Fixed Place of Work

Area	2014-2024					
	Total Employment	Total Employment Growth Associated with Non-Residential GFA	GFA (sq. ft.)			
			Commercial	Industrial	Institutional	Total
City-Wide	74,043	59,889	16,966,204	5,899,527	4,144,899	27,010,630
Transit Area	68,908	55,736	16,234,558	5,245,746	4,094,813	25,575,117
Serviced Water Area	69,649	56,335	16,283,479	5,363,389	4,096,033	25,742,902
Serviced Sewer Area	69,139	55,923	16,295,213	5,241,622	4,096,733	25,633,568
Serviced Water and Sewer Area	69,499	56,214	16,370,194	5,291,754	4,099,491	25,761,439
Unserviced Rural Area	3,572	2,890	486,435	494,253	42,268	1,022,955

Area	2014-2031					
	Total Employment	Total Employment Growth Associated with Non-Residential GFA	GFA (sq. ft.)			
			Commercial	Industrial	Institutional	Total
City-Wide	117,297	95,094	26,893,875	9,322,982	6,645,978	42,862,835
Transit Area	108,569	88,017	25,644,802	8,202,997	6,556,789	40,404,588
Serviced Water Area	109,939	89,128	25,749,086	8,418,370	6,559,424	40,726,880
Serviced Sewer Area	108,891	88,279	25,726,516	8,195,515	6,557,123	40,479,154
Serviced Water and Sewer Area	109,601	88,854	25,882,087	8,283,088	6,565,827	40,731,001
Unserviced Rural Area	6,004	4,867	825,789	832,003	77,183	1,734,975

Notes:

- All figures represent mid-year.
- Serviced Water Area is defined as the Transit Area and the Rural Serviced Water Area.
- Serviced Sewer Area is the Transit Area and the Rural Serviced Sewer Area.
- Serviced Water and Sewer Area is defined as the Transit Area and the Rural Serviced Water and Sewer Area.
- Total Employment Growth Associated with Non-Residential GFA excludes No Fixed Place of Work and Work at Home Employment.
- GFA (sq. ft.) excludes No Fixed Place of Work and Work at Home.
- Assumes 350 sq. ft./employee for commercial, 900 industrial and 400 institutional and vacancy rates of 10% commercial, 10% industrial and 0% institutional.
- Total Employment includes No Fixed Place of Work and Work at Home Employment.

Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa; Watson & Associates

Table AS10 City of Ottawa Gross Floor Area (GFA) Growth, 2014-24 and 2014-31
GFA Includes Work at Home and No Fixed Place of Work

	2014-2024				
	Total Employment	Commercial	Industrial	Institutional	Total GFA (sq. ft.)
City-Wide	74,043	19,038,017	10,324,847	5,120,320	34,483,185
Transit Area	68,908	18,217,027	9,180,655	5,058,447	32,650,533
Serviced Water Area	69,398	18,271,922	9,386,545	5,059,955	32,864,736
Serviced Sewer Area	68,736	18,285,088	9,173,439	5,060,819	32,725,155
Serviced Water and Sewer Area	69,184	18,369,227	9,261,175	5,064,226	32,888,403
Unserviced Rural Area	3,572	545,835	864,999	52,214	1,305,958

Area	2014-2031				
	Total Employment	Commercial	Industrial	Institutional	Total GFA (sq. ft.)
City-Wide	117,297	29,964,741	15,717,251	8,177,866	53,859,858
Transit Area	108,569	28,573,043	13,829,111	8,068,119	50,770,915
Serviced Water Area	109,939	28,689,235	14,192,200	8,071,361	51,175,895
Serviced Sewer Area	108,891	28,664,088	13,816,499	8,068,530	50,864,613
Serviced Water and Sewer Area	109,601	28,837,422	13,964,133	8,079,240	51,181,074
Unserviced Rural Area	6,004	920,081	1,402,641	94,974	2,180,105

1. All figures represent mid-year.
 2. Serviced Water Area is defined as the Transit Area and the Rural Serviced Water Area.
 3. Serviced Sewer Area is the Transit Area and the Rural Serviced Sewer Area.
 4. Serviced Water and Sewer Area is defined as the Transit Area and the Rural Serviced Water and Sewer Area.
 5. Total Employment Growth includes No Fixed Place of Work and Work at Home Employment.
 6. GFA (sq. ft.) includes No Fixed Place of Work and Work at Home.
 7. Assumes 350 sq. ft./employee for commercial, 900 industrial and 400 institutional and vacancy rates of 10% commercial, 10% industrial and 0% institutional.
- Source: Research & Forecasting Unit, Planning and Growth Management, City of Ottawa; Watson & Associates

APPENDIX B
DEVELOPMENT CHARGE RECOVERABLE COST
CALCULATIONS

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B-1 ROADS AND RELATED SERVICES

B-1 ROADS AND RELATED SERVICES

B-1.1 DC Calculation Planning Period

2015-2031

B-1.2 Service Coverage and Capital Program

Program Coverage: roads and related projects including streetlights, traffic signals, pedestrian facilities structures, studies, bike lanes, intersection modifications, transit priority projects and public works facilities and vehicles.

Capital Program: prepared by the Planning and Growth Management Department, based on the 2013 Transportation Master Plan, Council approved population and employment projections for 2011-2031, the Long Range Financial Plan and the following supporting documents: 1) Road Network Development Report, prepared by IBI Group (Sept. 2013); and 2) Rapid Transit and Transit Priority Report, prepared by IBI Group in association with Morrison Hershfield (Sept., 2013).

B-1.3 Local Service and Developer Contribution Policy

The Roads and Related local service policy is documented in Appendix D.

B-1.4 Level of Service Measurement

- Quantity
 - A comparison of road volume/capacity by screenline for 9 screenlines (Figure B-1) and indicates that between 2011 and 2031:
 - in five cases, road usage is forecast to remain consistent or increase;
 - in one case, an unacceptable level of service is being improved through the capital program and a commensurate benefit to existing development deduction has been made.
- Quality
 - Road cost assumptions are summarized in Figure B-2 that follows.

B-1.5 Consideration of Existing (Uncommitted) Excess Capacity

Areas of excess capacity were taken into consideration via traffic modelling in calculating additional need.

B-1.6 Benefit to Existing Development Deduction

No deduction was made in the case of debt payments issued with respect to previously-determined DC recoverable costs. A 5% deduction was made in the case of most projects in order to address the benefit of resurfacing existing lanes in the case of a widening or urbanization, thereby extending the useful life of those existing lanes, to some degree.

A 6% deduction was made in the case of the Airport Parkway and Lester Road consistent with the results of the V/C analysis in Figure B-1. A 10% deduction was made for Goulbourn Forced Road consistent with a related agreement.

For transit priority projects, the BTE deduction has been calculated based on the relative change in ridership among the existing and new population. This is discussed further in Section B-7.

The BTE deduction for pedestrian and cycling facilities was calculated based on the increase in person trips from 2014 to 2031 (Figure B-3).

The deduction for multi-use pathway structures was based on the average of the above two, weighted by relative dollar value of the spending program.

No BTE deduction was made for “additional road projects” reflecting the TMP affordability analysis.

For public works capital projects, a 15% deduction has generally been applied to reflect the benefits of operational efficiencies. A 28% deduction for the snow disposal facility has been maintained from the 2009 DC Study reflecting broader benefits to the existing population.

Finally, for transportation and public works capital programs, the benefit to existing deduction in some cases reflect the ratio of population growth to existing population for 2014-2031, i.e 84%. With others reflecting program specific attributions.

B-1.7 Post Period/Excess Capacity Deduction

A deduction has been made in the case of a number of projects which have been specifically oversized to provide for growth beyond 2031 requirements. The basis for a number of these deductions is outlined as part of the screenline analysis on Figure B-1. The Additional Road Projects have been allocated entirely to growth beyond 2031.

B-1.8 Provision for Grants, Subsidies and Other Contributions

Direct developer contributions have been netted out of gross project costs wherever applicable.

B-1.9 10% Statutory Deduction

This deduction is not applicable to the capital program reflecting services related to highways.

B-1.10 Use of Existing Reserve Funds

The December 31, 2013 uncommitted DC reserve fund balances, with adjustment for DC revenue foregone over the existing bylaw term due to exemptions, reductions and phase-in policies, has been deducted in making the DC calculation for roads.

B-1.11 Residential vs. Non-Residential Split

The population/employment ratio for the period 2014-2031 has been used for the allocation of net growth-related costs by type as it reflects the full use of the road system, rather than simply considering peak hour traffic trips. Total employment includes no fixed place of work and work at home employment. As a result, the net growth related costs have been allocated 61% residential and 39% non-residential for City-wide projects. For the large area-specific projects, the total net growth-related costs have been allocated, as follows:

- Inside the Greenbelt 61%/39%;
- Outside the Greenbelt 64%/36%;
- Rural 63%/37%.

B-1.12 Area-Specific Cost Allocation

A portion of the cost of the road program is allocated based on the additional Vehicle Kilometres Travelled (VKT) generated from each area, consistent with the 2009 DC Study approach. This distribution takes into account the increase in trip internalization from the three large geographic areas (see Figure B-4). This results in the following allocation of future road costs: 0% to Inside

the Greenbelt, 98% to Outside the Greenbelt and 2% to the Rural Area. In the case of existing debt payments, the 2004 DC Study allocation was maintained which was 5% Inside the Greenbelt, 92% Outside the Greenbelt and 3% Rural. For the 2013 Intersection Control Measures debt payments, the 2009 DC Study allocation was maintained, i.e. 8% Inside the Greenbelt, 65% Outside the Greenbelt and 27% Rural.

A portion of the program is to be recovered on a uniform City-wide basis, including arterial roads, traffic management, safety improvement, cycling facilities, traffic control signals, etc.

Non-residential Charge

The calculation was made on a City-wide basis in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

**FIGURE B-1
DC 2014 BACKGROUND STUDY – MAJOR SCREENLINES LEVEL OF SERVICE**

Screenline	2011 (base)					2031 (affordable)				v/c <0.9	Post Planning Capacity	Identified Solution to v/c deficiencies at Screenlines (lanes per direction)
	V	C	V/C	v/c >0.9	Benefit to Existing	V	ADD C	C	V/C			
SOUTHEAST												
#13 CNR East	7,423	7,800	0.95	Y	6%	7,525	1,200	9,000	0.84	Y	7%	+1 lane on Airport Parkway and Lester Road (+1200)
#8 Leitrim	4,112	5,200	0.79	N	0	5,375	-	5,200	1.03	N	0	none provided
SOUTHWEST												
#12 CNR West	9,276	12,000	0.77	N	0	9,300	-	12,000	0.77	Y	0	none provided
#9 Fallowfield	8,111	11,400	0.71	N	0	8,400	1,000	12,400	0.68	Y	24%	+1 lane on Prince of Wales Drive (+1000)
EAST												
#16 Green's Creek	9,512	8,800	1.08	N	0	9,750	-	8,800	1.11	N	0	none provided
#45 Bilberry Creek	6,125	8,000	0.77	N	0	6,500	800	8,800	0.74	Y	18%	+1 lane on Brian Coburn Boulevard (+800)
WEST												
#10a Eagleson (north)	7,075	8,800	0.80	N	0	8,650	-	8,800	0.98	N	0	none provided
#10b Eagleson (south)	2,425	3,800	0.64	N	0	3,225	800	4,600	0.70	Y	22%	+1 lane of Hope Side Road, Old Richmond Road and West Hunt Club Road (+800)
#44 Terry Fox	5,319	10,400	0.51	N	0	6,975	5,200	15,600	0.45	Y	50% with Hwy 417; excluding Hwy 417 is 35%	+2 lanes on Campeau (+1600) and 2 lanes on Hwy 417 (+3600)

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FIGURE B-2

IBI GROUP FINAL DRAFT: ROAD NETWORK DEVELOPMENT REPORT THE CITY OF OTTAWA

Exhibit 5-2: Summary of Benchmark Costs for Roadway Projects

Type	Existing Cross-Section	Proposed Cross-Section	Unit Cost (\$)
New Construction	-	2 Lane Rural, Undivided	\$4.09M / km
		2 Lane Urban, Undivided	\$7.44M / km
		4 Lane Urban, Divided	\$9.50M / km
		6 Lane Urban, Divided	\$10.88M / km
Widening	2 Lane Rural, Undivided	4 Lane Rural, Undivided (ref. B1)	\$5.41M / km
		4 Lane Rural, Divided	\$6.03M / km
		4 Lane Urban, Undivided (ref. B2)	\$8.02M / km
		4 Lane Urban, Divided (ref. B3)	\$9.60M / km
		6 Lane Urban, Divided (ref. B4)	\$11.37M / km
	2 Lane Urban, Undivided	4 Lane Urban, Undivided	\$7.06M / km
		4 Lane Urban, Divided	\$8.62M / km
	4 Lane Rural, Divided	6 Lane Rural, Divided (ref. B5)	\$5.51M / km
4 Lane Urban, Divided	6 Lane Urban, Divided	\$6.15M / km	

- (1) Preliminary cost estimates include: Property – 10%; Engineering-15%; Project Management – 10%; Miscellaneous Soft Costs (Permits, Public Art, etc.) –5%; and Project Contingency – 40%.
- (2) Typical roadway cross-sections (identified as ref. B1-B5 above) are provided in Appendix B.

FIGURE B-3

	2011 person trips (origin-destination survey)	Pro-rated 2014	2031 person trips (model projections)	2014 person trips compared to total 2031 person trips (benefit to existing)
Pedestrian facilities	43,200	45,870	61,000	75%
Cycling facilities	12,300	14,800	29,000	51%
Council's decision to fund Pedestrian Facilities at \$25.2M and Cycling Facilities at \$68.1M results in an allocation split respectively 27% for pedestrian and 73% for cycling				
	Council's spending allocation between pedestrian and cycling facilities (out of 100)	Above-noted 2015 benefit to existing	Proportional share	Blended percentage benefit to existing
Multi-use pathway structures	Pedestrian – 27 share	75%	20% (= 27 x 75%)	20%
	Cycling – 73 share	51%	37% (= 73 x 51%)	37%
				57%
				TOTAL

FIGURE B-4

Increase in Vehicle Kilometres Travelled (VKT)											
Auto Mode											
From	To	Vehicle Km Travelled (VKT)				% distribution of growth		% change	Vehicle Km Travelled (VKT)		
		2011	2031	change	% change				2011	2031	Increase
Inside Greenbelt	Everywhere	508,400	498,300	-10,100	-2%	nil	Inside Greenbelt	-2%			
Orleans	Everywhere	203,000	225,800	22,800	11%	12%	Outside Greenbelt	34%	569,200	760,300	191,100
Riverside South and Leitrim	Everywhere	34,900	71,300	36,400	104%	19%					
South Nepean	Everywhere	131,300	173,800	42,500	32%	22%					
Kanata-Stittsville	Everywhere	200,000	289,400	89,400	45%	46%					
Rural	Everywhere	300,600	304,700	4,100	1.4%	2%	Rural	1.4%			
Total		1,378,200	1,563,300	185,100	13%	101%*					

* due to rounding total exceeds 100%

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City of Ottawa
City-Wide Development Charge Projects
Service Component - Roads and Related Services

B-10

Item	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Benefit to Existing Development %	Less			Growth Cost \$000	61% Residential Share \$000	39% Non-residential Share \$000
					Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000	Post Period Capacity \$000			
Road Network										
1.07644	2018-2020	Airport Parkway (Brookfield Road and Hunt Club Road)	31,400	6%	1,884	-	2,066	27,450	16,868	10,582
1.00014	2026-2031	Airport Parkway (Hunt Club Road - Realigned Airport Parkway)	8,510	6%	511	-	560	7,439	4,571	2,868
1.00024	2026-2031	Airport Parkway Realignment (Airport Parkway to Uplands Drive)	27,730	6%	1,664	-	1,825	24,241	14,896	9,345
1.0794A4	2015	Alta Vista Transportation Corridor (Riverside Drive - Hospital)	4,000	5%	200	-	-	3,800	2,335	1,465
1.08144	2020-2021	Bank Street (Leitrim Road - Earl Armstrong Extension)	21,485	5%	1,074	-	-	20,411	12,543	7,868
1.00034	2026-2031	Bank Street (Earl Armstrong Extension - Rideau Road)	7,000	5%	350	-	-	6,650	4,086	2,564
1.0049A4	2019-2020	Blackburn Hamlet Bypass Extension (Navan Road - Orléans Boulevard Extension)	8,080	5%	404	-	-	7,676	4,717	2,959
1.0049B4	2022-2023	Blackburn Hamlet Bypass Extension (Innes Road - Orléans Boulevard Extension)	9,500	5%	475	-	-	9,025	5,546	3,479
1.00044	2026-2031	Blair Road (Meadowbrook Road - Innes Road)	6,895	5%	345	-	-	6,550	4,025	2,525
1.00594	2015	Brian Coburn Boulevard (Navan Road - Mer Bleue Road)	15,870	5%	794	-	2,714	12,362	7,596	4,766
1.1234A4	2015-2016	Campeau Drive (Huntmar Drive & N/S Arterial - Didsbury Road)	10,750	5%	538	-	3,574	6,638	4,079	2,559
1.01194	2023-2024	Carp Road (Hazeldean Road - Highway 417)	17,310	5%	866	-	-	16,444	10,105	6,339
1.08544	2028-2029	Coventry Road (Belfast Road - West of St. Laurent Centre)	6,230	5%	312	-	-	5,918	3,637	2,281
1.08744	2024-2025	Eagleson Road (Cadence Gate - Hope Side Road)	12,889	5%	644	-	-	12,245	7,525	4,720
1.0884A4	2030-2031	Earl Armstrong Road (Limebank Road - Bowesville Road)	21,153	5%	1,058	-	-	20,095	12,348	7,747
1.01594	2016-2017	Earl Grey Drive Underpass (Extension Under Terry Fox)	8,200	5%	410	-	-	7,790	4,787	3,003
1.0924B4	2017-2019	Greenbank Road Extension (Jockvale Road - Cambrian Road)	78,085	5%	3,904	-	-	74,181	45,584	28,597
1.0944B4	2026-2031	Hope Side Road (Eagleson Road - Old Richmond Road)	24,222	5%	1,211	-	5,062	17,949	11,030	6,919
1.1304A4	2026-2031	Huntmar Drive (Campeau Drive Ext - Cyclone Taylor Blvd and Palladium - Maple Grove)	56,857	5%	2,843	-	-	54,014	33,192	20,822
1.10144	2024-2025	Jockvale Road (Cambrian Road - Prince of Wales)	35,718	5%	1,786	-	-	33,932	20,851	13,081
1.00074	2019-2020	Kanata Avenue (Campeau Drive - Highway 417)	7,770	5%	389	-	-	7,381	4,536	2,845
1.0944A4	2015-2017	Kanata South Link (Hope Side Road - Highway 416)	29,730	5%	1,487	-	6,213	22,030	13,537	8,493
1.01894	2016	Stittsville North South Arterial (Fernbank Road - Abbott Street) Front-ended	11,964	5%	598	-	-	11,366	6,984	4,382
1.1344A4	2020	Stittsville North South Arterial (Abbott Street - Palladium Drive)	44,322	5%	2,216	-	-	42,106	25,874	16,232
1.00094	2024	Lester Road (Airport Parkway - Bank Street)	16,760	6%	1,006	-	1,103	14,651	9,003	5,648
1.0134-01744	2018-2019	Mer Bleue Road (Brian Coburn Boulevard - Renaud Road)	2,791	5%	140	-	-	2,651	1,629	1,022
1.13144	2026-2031	Palladium Drive Realignment (Huntmar Road - New North/South Arterial)	4,790	5%	240	-	-	4,550	2,796	1,754
1.000114	2026-2031	Preston Street (Albert Street - Sir John A. Macdonald Parkway)	13,400	5%	670	-	-	12,730	7,823	4,907
1.1104A4	2026-2031	Prince of Wales Drive (Merivale Road to Hunt Club Road)	44,030	5%	2,202	-	10,039	31,789	19,534	12,255
1.1154B4	2020-2022	Strandherd Drive Phase 2 (Maravista Drive - Jockvale Road)	72,542	5%	3,627	-	-	68,915	42,348	26,567
1.000124	2022-2023	Tenth Line Road (Harvest Valley Road - South of Wall)	7,338	5%	367	-	-	6,971	4,284	2,687
1.02494	2015-2031	Environmental Assessment Studies - Arterial and Major Collector Roads	35,088	5%	1,754	-	-	33,334	20,484	12,850
1.22214	2016	Origin-destination Survey	800	50%	400	-	-	400	246	154
1.22224	2021	Origin-destination Survey	800	50%	400	-	-	400	246	154
2.109X4	2015-2031	Transit Priority Programs and Measures	41,995	32%	13,438	-	-	28,557	17,548	11,009

City of Ottawa
City-Wide Development Charge Projects
Service Component - Roads and Related Services

B-11

Item	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Benefit to Existing Development %	Benefit to Existing Development \$000	Less		Growth Cost \$000	61% Residential Share \$000	39% Non-residential Share \$000
						Grants, Subsidies & Contributions \$000	Post Period Capacity \$000			
1.15644	2015-2019	Pedestrian Facilities Standalone Capital Projects - Phase 1	7,580	75%	5,685	-	-	1,895	1,164	731
1.15644	2020-2025	Pedestrian Facilities Standalone Capital Projects - Phase 2	9,027	75%	6,770	-	-	2,257	1,387	870
1.15644	2026-2031	Pedestrian Facilities Standalone Capital Projects - Phase 3	8,791	75%	6,593	-	-	2,198	1,351	847
1.14544	2015-2019	Cycling Facilities Standalone Capital Projects - Phase 1 (see attachment)	20,130	51%	10,266	-	-	9,864	6,061	3,803
1.14544	2020-2025	Cycling Facilities Standalone Capital Projects - Phase 2 (see attachment)	24,000	51%	12,240	-	-	11,760	7,227	4,533
1.14544	2026-2031	Cycling Facilities Standalone Capital Projects - Phase 3 (see attachment)	23,930	51%	12,204	-	-	11,726	7,206	4,520
1.000144	2015	Multi-use Pathway Structures - Rideau River Footbridge - Phase 1	10,200	57%	5,814	-	-	4,386	2,695	1,691
1.000144	2015-2019	Multi-use Pathway Structures - Prince of Wales Bridge - Phase 1	2,800	57%	1,596	-	-	1,204	740	464
1.000144	2020-2025	Multi-use Pathway Structures - Rideau Canal Footbridge - Phase 2	13,000	57%	7,410	-	-	5,590	3,435	2,155
1.000144	2026-2031	Multi-use Pathway Structures - Other - Phase 3	14,000	57%	7,980	-	-	6,020	3,699	2,321
Additional Road Projects										
1.000X1	2026-2031	March Road (Old Carp Road to Urban Boundary)	22,030	0%	0	-	22,030	0	0	0
1.000X2	2026-2031	Innes-Walkley-Hunt Club Link (Innes Road to Walkley Road)	67,460	0%	0	-	67,460	0	0	0
1.000X3	2026-2031	Blackburn Hamlet Bypass (Innes Road to Blackburn Hamlet Bypass Extension)	12,680	0%	0	-	12,680	0	0	0
1.000X4	2026-2031	Alta Vista Transportation Corridor (Ottawa Health Sciences Centre & Wakley Road)	34,800	0%	0	-	34,800	0	0	0
1.000X5	2026-2031	Terry Fox Drive (Winchester Drive to Eagleson Road at Hope Side Road)	34,940	0%	0	-	34,940	0	0	0
1.000X6	2026-2031	Prince of Wales (Colonnade Road and Fisher Avenue)	12,300	0%	0	-	12,300	0	0	0
1.000X7	2026-2031	Ottawa Road 174 (Highway 417 to Jeanne d'Arc Boulevard)	40,280	0%	0	-	40,280	0	0	0
1.000X8	2026-2031	Hunt Club Road (Riverside Drive to Bank Street)	27,040	0%	0	-	27,040	0	0	0
1.000X9	2026-2031	Ottawa Road 174 (Jeanne d'Arc Boulevard to Trim Road)	30,340	0%	0	-	30,340	0	0	0
Various Transportation Programs										
1.14944	2015-2031	Transportation Demand Management	7,350	50%	3,675	-	-	3,675	2,258	1,417
1.14444	2015-2031	Area Traffic Management	8,000	84%	6,680	-	-	1,320	811	509
1.05244	2015-2031	Intersection Control Measures	10,353	5%	518	-	-	9,835	6,044	3,791
1.16444	2015-2031	Development Sidewalks	1,819	5%	91	-	-	1,728	1,062	666
1.15344	2015-2031	Network Modification Program	66,232	17%	11,259	-	-	54,973	33,781	21,192
Public Works Capital Programs										
1.15544	2015-2031	Lifecycle Renewal - Traffic Monitoring Systems	3,350	80%	2,680	-	-	670	412	258
1.14644	2015-2031	Street Light Major Replacements	6,084	80%	4,867	-	-	1,217	748	469
1.15744	2015-2031	Parking Studies	700	80%	560	-	-	140	86	54
1.15444	2015-2031	New Traffic Control Signals	36,604	20%	7,321	-	-	29,283	17,994	11,289

City of Ottawa
City-Wide Development Charge Projects
Service Component - Roads and Related Services

B-12

Item	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Less			Growth Cost \$000	61% Residential Share \$000	39% Non-residential Share \$000	
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000				Post Period Capacity \$000
1.14244	2015-2031	Safety Improvement Program	17,050	50%	8,525	-	-	8,525	5,239	3,286
1.20094	2015-2031	Traffic Incident Management	6,500	20%	1,300	-	-	5,200	3,195	2,005
1.20194	2015-2031	Advanced Traffic Management Program	6,500	20%	1,300	-	-	5,200	3,195	2,005
1.15244	2015-2031	Audible Signal Program	1,345	80%	1,076	-	-	269	165	104
1.14744	2015-2031	New Street Lighting	4,400	80%	3,520	-	-	880	541	339
		Public Works Capital Projects								
8.0344	2015-2024	Vehicle & Equipment	15,212	15%	2,282	-	-	12,930	7,945	4,985
8.0024	2020-2024	Various Works Yard Facilities	23,451	15%	3,518	-	-	19,933	12,249	7,684
8.0144	2015	Municipal Garage	1,487	10%	149	-	-	1,338	822	516
8.0394	2015	Antares Yard Phase II	3,030	15%	455	-	-	2,575	1,582	993
8.0014	2015	Bloomfield Yard Facility Expansion	6,030	15%	905	-	-	5,125	3,149	1,976
8.0594	2017	Huntley Yard Facility Expansion	2,640	15%	396	-	-	2,244	1,379	865
8.0544	2020-2024	Winter Material Storage Facility - Maple Grove, Trim & Antares	2,890	15%	434	-	-	2,456	1,509	947
8.0794	2016	Antares Snow Disposal Facility Design & Construction	4,200	28%	1,176	-	-	3,024	1,858	1,166
		Debt Payments - 2009 By-law								
1.0794A4	2016-2031	Alta Vista Transportation Corridor (Riverside - Hospital) - Debt Payments	3,875	0%	0	-	-	3,875	2,381	1,494
1.0924A4	2018-2031	Greenbank Road (Malvern to Strandherd) - Debt Payments	34,501	0%	0	-	-	34,501	21,201	13,300
1.09844	2015-2031	Hunt Club Road (Russell/Hwy 417) - Debt Payments	44,142	0%	0	-	-	44,142	27,125	17,017
1.14644	2015-2031	2012 Street Lighting Major Replacement - Debt Payments	376	0%	0	-	-	376	231	145
1.1174-1.02044	2015-2031	Trim Road (Ottawa Road 174 to Innes Road) - Debt Payments	12,568	0%	0	-	-	12,568	7,723	4,845
1.00244	2015-2031	Strandherd Drive/Earl Armstrong Bridge - Debt Payments	1,865	0%	0	-	-	1,865	1,146	719
1.15244	2015-2031	2012 Audible Signal Program - Debt Payments	31	0%	0	-	-	31	19	12
1.15644	2015-2031	North Service Road Sidewalk - Debt Payments	94	0%	0	-	-	94	58	36
1.15644	2016-2031	2013 Pedestrian Facilities Program - Debt Payments	212	0%	0	-	-	212	130	82
		Debt Payments - 2004 By-law								
1.00744	2015-2031	Centrepointe Road Link - Debt Payments	339	0%	0	-	-	339	208	131
1.11644	2015-2031	ISF-Extension of Terry Fox Drive - Debt Payments	5,362	0%	0	-	-	5,362	3,295	2,067
1.XXX4	2016-2031	Provence Avenue Link - Debt Payments	1,473	0%	0	-	-	1,473	905	568
1.09844	2015-2031	Hunt Club Road (Hawthorne to 417) - Debt Payments	3,400	0%	0	-	-	3,400	2,089	1,311
8.0294	2015-2024	Maple Grove Facility Replacement, Relocation and Construction - Debt Payments	2,800	0%	0	-	-	2,800	1,721	1,079
		Total	1,507,597		189,452	-	315,026	1,003,119	616,414	386,705

NOTES:

¹ For those roads projects listed between 2015-2025 that have a multiple year timing indicated, the funding availability will generally be in a ratio of 10% first year (or years) and 90% in the last year. For those projects listed with years 2026-2031 the exact funding year(s) will be determined later.

City of Ottawa
Area-Specific Development Charge Projects
Service Component - Roads and Related Services

Item	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Benefit to Existing Development %	Benefit to Existing Development \$000	Less		Growth Cost \$000	61% Residential Share \$000	39% Non-residential Share \$000	Allocation of Expenditures by Area			
						Grants, Subsidies & Contributions \$000	Post Period Capacity \$000				0% Inside Greenbelt \$000	98% Outside Greenbelt \$000	2% Rural \$000	
1.04644	2019-2020	Chapman Mills Drive (Longfields Drive - Strandherd Drive)	2,800	5%	140	-	-	2,660	1,635	1,025	0	2,607	53	
1.00054	2015	Country Club Road (Golf Club Way - Jenkinson Road)	2,290	5%	115	-	-	2,175	1,337	838	0	2,132	44	
1.00064	2026-2031	Cyrville Road (Star Top Road - St. Laurent Boulevard)	10,420	5%	521	-	-	9,899	6,083	3,816	0	9,701	198	
1.X1444	2019-2020	Goulbourn Forced Road and Second Line Re-alignment (City-share only) ²	7,000	10%	700	-	-	6,300	6,300	0	0	6,174	126	
1.00084	2015	Klondike Road (March Road - Sandhill Road)	2,300	5%	115	-	-	2,185	1,343	842	0	2,141	44	
1.50194	2026-2031	Stittsville Main Street Extension (Palladium - Maple Grove)	14,880	5%	744	-	-	14,136	8,687	5,449	0	13,853	283	
1.000134	2026-2031	Tremblay Road (Pickering Place - St. Laurent Boulevard)	8,020	5%	401	-	-	7,619	4,682	2,937	0	7,467	152	
Debt Payments - 2004 By-law														
1.05244	2015-2031	2013 Intersection Control Measures - Debt Payments	4,726	0%	0	-	-	4,726	2,904	1,822	378	3,072	1,276	
1.16644	2015-2016	Limebank Road - Debt Payments	38	0%	0	-	-	38	23	15	2	35	1	
1.16744	2015-2017	Carrierre Street Extension - Debt Payments	99	0%	0	-	-	99	61	38	5	91	3	
1.16844	2015-2017	Albion Road - Debt Payments	39	0%	0	-	-	39	24	15	2	36	1	
1.16544	2015-2024	Armstrong Road SUC - Debt Payments	650	0%	0	-	-	650	399	251	33	598	20	
1.004A4	2015-2025	Mackenzie Avenue/Rideau Street Improvements - Debt Payments	121	0%	0	-	-	121	74	47	6	111	4	
1.10544	2015-2031	Limebank Road - Riverside to Spratt - Debt Payments	21,947	0%	0	-	-	21,947	13,486	8,461	1,097	20,191	658	
1.01044	2015-2031	Strandherd Drive (Woodroffe - Prince of Wales) - Debt Payments	9,979	0%	0	-	-	9,979	6,132	3,847	499	9,181	299	
1.12144	2015-2030	Riverside Drive (Hunt Club - Limebank) - Debt Payments	24,880	0%	0	-	-	24,880	15,289	9,591	1,244	22,890	746	
1.04744	2015-2031	Kanata Avenue/Goulbourn Forced Road - Debt Payments	7,616	0%	0	-	-	7,616	4,680	2,936	381	7,007	228	
Intersection Construction														
Rural Area														
1.XXX01	2020	Carp Road @ Russ Bradley	\$200	0%	0	-	-	200	140	60	0	196	4	
1.XXX02	2016	Main Street @ West Ridge Drive	\$200	0%	0	-	-	200	140	60	0	196	4	
1.XXX03	2018	March Road @ Thomas Argue	\$200	0%	0	-	-	200	140	60	0	196	4	
1.XXX04	2017	Shea Road @ Collector Road South of Fernbank Road	\$200	0%	0	-	-	200	140	60	0	196	4	
1.XXX05	2015	Manotick Station @ Mitch Owens	\$560	0%	0	-	-	560	392	168	0	549	11	
1.XXX06	2019	March Road @ Diamondview	\$200	0%	0	-	-	200	140	60	0	196	4	
West Urban Community														
1.XXXA6	2020	Carp Road @ Russ Bradley	\$200	0%	0	-	-	200	146	54	0	196	4	
1.XXXB6	2016	Fernbank Road @ Rouncey Road (Monarch Development)	\$200	0%	0	-	-	200	146	54	0	196	4	
1.XXX08	2018	Fernbank Road @Street F	\$200	0%	0	-	-	200	146	54	0	196	4	
1.XXX09	2022	Fernbank Road @Street E	\$200	0%	0	-	-	200	146	54	0	196	4	
1.XXX10	2016	Fernbank Road @Street D	\$200	0%	0	-	-	200	146	54	0	196	4	
1.XXX11	2021	Hazeldean Road @Street H	\$50	0%	0	-	-	50	37	14	0	49	1	
1.XXXG6	2015	Palladium @ Silver Seven	\$900	0%	0	-	-	900	657	243	0	882	18	

City of Ottawa
Area-Specific Development Charge Projects
Service Component - Roads and Related Services

Item	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Less				Growth Cost \$000	61% Residential Share \$000	39% Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000	Post Period Capacity \$000				0% Inside Greenbelt \$000	98% Outside Greenbelt \$000	2% Rural \$000
1.XXX12	2015	Hope Side Road @ Crownridge Drive	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXX13	2017	Hope Side Road @ Charlie Rogers Way	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXXJ6	2016	Main Street @ West Ridge Drive	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXXK6	2018	March Road @ Thomas Argue	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXXL6	2019	March Road @ Diamondview	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXX14	2017	Shea Road @ Street D	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXX15	2019	Terry Fox Drive @ Abbott Street	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXX16	2015	Terry Fox Drive @ Westphalian	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXX17	2020	Terry Fox Drive @ Cope Road	200	0%	0	-	-	200	146	54	0	196	4
1.XXX18	2021	Fernbank Road @ Street #1 (CRT draft plan)	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXX19	2022	Fernbank Road @ Rouncey Road (Monarch Development)	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXXS6	2023	March Road @ Maxwell Road	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXX20	2023	March Road and Kanata North Street No. 1	200	0%	0	-	-	200	146	54	0	196	4
1.XXXU6	2023	March Road and Kanata North Street No. 2	\$200	0%	0	-	-	200	146	54	0	196	4
1.XXXV6	2024	Terry Fox Drive @ Street No. 1	\$200	0%	0	-	-	200	146	54	0	196	4
South Area													
1.XXX21	2017	Earl Armstrong Road @ Collector D / Metro Site	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXXB4	2023	Earl Armstrong Road @ Collector C	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXXC4	2022	Earl Armstrong Road @ Collector E	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXXD4	2017	Earl Armstrong Road @ Collector B	\$50	0%	0	-	-	50	36	14	0	49	1
1.XXX22	2020	Chapman Mills @ Strandherd	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXX23	2016	Jockvale @ Golf Links South	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXXG4	2023	Cambrian Road @ Tuscana Way	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXXH4	2015	Bankfield Road @ First Line Road	\$750	0%	0	-	-	750	540	210	0	735	15
1.XXX24	2019	Limebank @ Riverside Main Street	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXXJ4	2015	Manotick Station @ Mitch Owens	\$560	0%	0	-	-	560	403	157	0	549	11
1.XXX25	2016	River Road @ Summerhill (future collect. 1)	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXX26	2021	River Road @ Borbridge (future collect. 2)	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXXM4	2020	River Road @ Future Collector J	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXX27	2018	Kelly Farm Drive @ Leitrim Road	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXX28	2017	Street No. 12 (Blais Road) @ Bank Street (Remer draft plan)	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXX29	2019	Street No. 2 (Remer Draft Plan) @ Bank Street	\$200	0%	0	-	-	200	144	56	0	196	4
1.XXX30	2015	Findlay Creek Drive @ Bank Street (Area 9A, OPA76) (upgrade to a 4-way intersection)	\$50	0%	0	-	-	50	36	14	0	49	1
1.XXX31	2015	Rotary Way @ Bank Street (upgrade to a 4-way intersction)	\$50	0%	0	-	-	50	36	14	0	49	1
1.XXXS4	2024	Jockvale Road @ Kilspondie Ridge	\$200	0%	0	-	-	200	144	56	0	196	4

City of Ottawa
 Area-Specific Development Charge Projects
 Service Component - Roads and Related Services

Item	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Less				Growth Cost \$000	61% Residential Share \$000	39% Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000	Post Period Capacity \$000				0% Inside Greenbelt \$000	98% Outside Greenbelt \$000	2% Rural \$000
East Area													
1.XXX32	2020	Belcourt @ Eastboro	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXX33	2018	Belcourt @ Renaud	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXX34	2019	Belcourt @ Navan	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXXD5	2020	Navan Road @ Street 1	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXXE5	2019	Navan Road @ Street 2	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXX35	2022	Belcourt @ Vanguard	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXX36	2018	BHBP (Brian Coburn) @ Int. 1 (Gerry Lalonde)	\$1,800	0%	0	-	-	1,800	1,134	666	0	1,764	36
1.XXX37	2017	BHBP (Brian Coburn) @ Int. 2 (Strasbourg)	\$1,800	0%	0	-	-	1,800	1,134	666	0	1,764	36
1.XXX38	2015	Brian Coburn Boulevard @ Aquaview Drive	\$1,800	0%	0	-	-	1,800	1,134	666	0	1,764	36
1.XXX39	2016	Brian Coburn Boulevard @ Espirit Drive	\$1,800	0%	0	-	-	1,800	1,134	666	0	1,764	36
1.XXX40	2015	Innes @ Valin	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXX41	2016	Montmere @ Trim	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXX42	2017	Navan @ Orleans	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXX43	2018	Portobello @ Scala	\$500	0%	0	-	-	500	315	185	0	490	10
1.XXXO5	2015	Portobello Boulevard @ Valin Street	\$500	0%	0	-	-	500	315	185	0	490	10
1.XXX44	2019	Southfield @ Tenth Line	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXX45	2021	Harvest Valley @ Tenth Line	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXXR5	2022	Mer Bleue Road @ Collector 1	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXXS5	2020	Highway 174 @ Collector 1	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXX46	2021	Old Montreal @ Collector 1	\$200	0%	0	-	-	200	126	74	0	196	4
1.XXXU5	2016	Renaud Road @ Navan Road	2,000	0%	0	-	-	2,000	1,260	740	0	1,960	40
Total			141,575		2,736	0	0	138,839	89,102	49,738	3,647	130,581	4,612

B-2 SANITARY SEWER

B-2 SANITARY SEWER

B-2.1 DC Calculation Planning Period

2015-2031

B-2.2 Service Coverage and Capital Program

Coverage: collectors and trunks, rehabilitation, flow monitoring program, sewer oversizing, flow diversion, pumping stations, twinning, net of local service requirements.

Capital Program: prepared by staff. Major projects based on the 2013 Infrastructure Master Plan, Community Design Plans and Master Servicing Studies, other servicing studies (e.g. ROPEC Development Plan, 2013), Long Range Financial Plans, 10-Year Capital Budgets, and the Stantec Review of studies. Projects are per Provincial standards and City of Ottawa Design Guidelines and specifications. Projects have been included in City of Ottawa 10-Year Capital Budgets and/or the City's Long Range Financial Plan. Otherwise, projects will be approved as part of the DC Background Study.

B-2.3 Local Service and Developer Contribution Policy

The sanitary sewer local service policy is documented in Appendix D.

B-2.4 Level of Service Measurement

- Quantity – Provincial standards and City of Ottawa Design Guidelines for local infrastructure to additional flow monitoring for major infrastructure and other specifications
- Quality – Benchmarks costs for smaller pipes and project costs for larger distribution pipes, elevated tanks, reservoirs and pumping stations

B-2.5 Benefit to Existing Development Deduction

With respect to sanitary treatment capacity projects, no benefit to existing development deduction has been made for existing debt payments which relate to previous DC recoverable costs. No deduction was made for capacity-related projects at the R.O. Pickard Plant, with the exception of a 40% deduction for Short Term Accommodations and 10% deduction for the

Disinfection System reflecting improvements to existing systems that benefit existing development. A 50-67% deduction was made for reliability items related to the Pickard Plant.

For the remaining projects (i.e. wet weather flow reduction and integrated infrastructure and data collection programs), an 87% deduction was made, consistent with the size of the existing 2014 population in comparison with the forecast 2031 population.

With respect to sanitary sewer projects, benefit to existing development deductions of 0-97% were made reflecting project-specific assessments.

B-2.6 Post Period/Excess Capacity Deduction

The availability of excess capacity has been addressed in modelling future needs on a net basis. Post period deduction shares ranging from 5% to 74% of net growth cost has been made to the R.O. Pickard Plant Expansion to recognize that this work will be sized to accommodate flows greater than what is needed for the immediate growth forecast to 2031.

B-2.7 Provision for Grants, Subsidies and Other Contributions

No project subsidies are currently anticipated. Any direct developer funding has been netted out of the gross capital costs included.

B-2.8 10% Statutory Deduction

Not applicable.

B-2.9 Use of Existing Reserve Funds

The December 31, 2013 uncommitted DC reserve fund balance, with adjustment for DC revenue foregone over the existing by-law term due to exemptions, reductions and phase-in policies, has been netted in making the DC calculation for sanitary sewer works.

B-2.10 Residential vs. Non-Residential Split

The 2014-31 increment in average flow required for residential development vs. non-residential development determines the split (Figure B-5), which is 78:22 (res.:non-res.) in the case of the sanitary treatment capacity projects. The split for sanitary sewer projects varies depending upon whether the project is Inside the Greenbelt (71:29), Outside the Greenbelt (86:14), Rural - Richmond Service Area (95:5), or Rural - Manotick Service Area (85:15).

B-2.11 Area-Specific Cost Allocation

Residential Charge

The cost of sanitary treatment capacity has been allocated on a uniform City-wide basis. The cost of sanitary sewers has been allocated between Inside the Greenbelt vs. Outside the Greenbelt, with the Rural (Richmond and Manotick Service Areas) addressed separately, where applicable.

Non-residential Charge

The calculation was made on a City-wide basis (with the exception of the Rural Richmond and Manotick Service Areas) in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

FIGURE B-5

Wastewater	Residential - Mld		ICI Mld		Total - Mld		Growth in Demand	Res Growth	Non-Res Growth	Res Component of Growth
	2014	2031	2014	2031	2014	2031	Mld	Mld	Mld	%
igb	109.2	127.1	65.1	72.3	174.3	199.4	25.1	17.9	7.3	0.71
ogb	55.4	76.3	7.9	11.3	63.2	87.6	24.3	20.9	3.4	0.86
wuc	19.4	27.7	4.5	5.6	24.0	33.3	9.3	8.3	1.1	0.89
suc	17.0	24.5	1.4	2.7	18.4	27.3	8.9	7.6	1.3	0.85
euc	18.9	24.0	1.9	3.0	20.9	27.0	6.1	5.1	1.0	0.83
Total	164.6	203.3	72.9	83.6	237.5	287.0	49.5	38.8	10.7	0.78

H:\OTTAWA\2014 DC\[Shedule B5 & B6.xlsx]Figure B-5

City of Ottawa
City-Wide Development Charge Projects
Service Component - Sanitary Treatment

Item	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Benefit to Existing Development %	Benefit to Existing Development \$000	Less		Growth Cost \$000	78% Residential Share \$000	22% Non-residential Share \$000
						Grants, Subsidies & Contributions \$000	Post Period Capacity \$000			
10.1044A		R.O. Pickard Plant Expansion Items								
10.4A2	2015-2017	Waste Activated Sludge (WAS) Pumps	420	0%	-	-	23	397	310	87
10.4A3	2015-2017	Aeration Blowers	4,218	0%	-	-	219	3,999	3,119	880
10.4A4	2015-2017	Sludge Thickening Centrifuges	15,254	0%	-	-	1,266	13,988	10,911	3,077
10.4A5	2016-2018	Short Term Accommodations	1,552	40%	621	-	175	756	590	166
10.4A6	2018-2020	Primary Clarifiers	57,171	0%	-	-	7,946	49,225	38,396	10,830
10.4A7	2018-2020	Chlorine Contact Tank	15,032	0%	-	-	1,864	13,168	10,271	2,897
10.4A8	2019-2021	New Raw Sewage Pump Station	36,739	0%	-	-	9,846	26,893	20,977	5,916
10.4A9	2019-2021	Coarse Screen for New - Raw Sewage Pump Station (RSPS)	289	0%	-	-	160	129	101	28
10.4A10	2019-2021	Disinfection System	2,386	10%	239	-	1,326	821	640	181
10.4A11	2022-2024	Outfall	29,645	0%	-	-	18,350	11,295	8,810	2,485
10.4A12	2027-2029	Dewatering Centrifuge Polymer Pumps	316	0%	-	-	197	119	93	26
10.4A13	2028-2030	New Storage/Warehouse Building	8,048	0%	-	-	5,722	2,326	1,814	512
10.4A14	2028-2030	Fine Screens	15,604	0%	-	-	11,177	4,427	3,453	974
10.4A15	2028-2030	Aeration Tanks	33,274	0%	-	-	23,657	9,617	7,501	2,116
10.4A16	2028-2030	Substation 1 (West)	1,893	0%	-	-	1,404	489	381	108
10.5004		R.O. Pickard Plant Reliability Items								
10.5B1	2014-2016	Digester Gas Flare System	749	50%	375	-	-	374	292	82
10.5B2	2015-2017	Aeration Blowers	4,218	67%	2,826	-	-	1,392	1,086	306
10.5B3	2018-2020	Main Electrical Feed	1,882	50%	941	-	-	941	734	207
	2015-2022	Wet Weather Program/ORAP Wet Weather Flow Reduction	14,000	87%	12,180	-	-	1,820	1,420	400
	2023-2031	Wet Weather Program/ORAP Wet Weather Flow Reduction	22,000	87%	19,140	-	-	2,860	2,231	629
	2015-2022	Integrated Program/Infrastructure Assessment and Data Collection	10,080	87%	8,770	-	-	1,310	1,022	288
	2023-2031	Integrated Program/Infrastructure Assessment and Data Collection	22,120	87%	19,244	-	-	2,876	2,243	633
		Debt Payments								
10.1044	2015-2031	R.O. Pickard Plant Digester Expansion - Debt Payments	53,841	0%	-	-	-	53,841	41,996	11,845
10.1344	2015-2031	ORAP ROPEC Effluent Declorination - Debt Payments	118	0%	-	-	-	118	92	26
		Total	350,849		64,336	-	83,332	203,181	158,483	44,699

H:\OTTAWA\2014 DC\Templates from City\10 Project Template Sanitary Services Services 2014 March 24 WATSON.xls\10 Sanitary Treatment City-Wide

City of Ottawa
Area-Specific Development Charge Projects
Service Component - Sanitary Sewers

Item	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Benefit to Existing Development %	Benefit to Existing Development \$000	Less			Growth Cost \$000	Residential Share \$000	Non-residential Share \$000	Allocation of Expenditures by Area		
						Grants, Subsidies & Contributions \$000	Post Period Capacity \$000					Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
10.2644	2018	North Kanata Sewer Phase 2	7,619	10%	762	-	-	-	6,857	6,103	754			6,857
10.0094	2017	Tri-Township/March Ridge Collector Replacement	8,800	59%	5,192	-	-	-	3,608	3,211	397			3,608
10.0194	2015	South Nepean Collector Phase 2	4,336	0%	-	-	-	-	4,336	3,686	650			4,336
10.0294	2017-2018	South Nepean Collector Phase 3	7,700	0%	-	-	-	-	7,700	6,545	1,155			7,700
10.0394	2015-2024	Kanata West Trunk Sewers	9,962	0%	-	-	-	-	9,962	8,866	1,096			9,962
10.0494	2015-2019	Fernbank Collector Sewer - Front-ending Agreement	2,000	0%	-	-	-	-	2,000	1,780	220			2,000
10.0594	2018	March Road Pumping Station Conversion	4,781	53%	2,534	-	-	-	2,247	2,000	247			2,247
10.5024	2022	Signature Ridge Pump Station and Forcemain Expansion	4,500	0%	-	-	-	-	4,500	4,005	495			4,500
10.5034	2017	Stittsville Pump Station Gravity Connection and Decommissioning	1,500	70%	1,050	-	-	-	450	401	50			450
10.5044	2022	Acres Road Pump Station Upgrade	3,900	0%	-	-	-	-	3,900	3,471	429			3,900
10.5054	2016	Stittsville / Fernbank Interceptor Sewer	5,959	10%	596	-	-	-	5,363	4,773	590			5,363
10.5064	2028	Conroy Road Collector Twinning	1,900	0%	-	-	-	-	1,900	1,615	285			1,900
10.5074	2019-2031	Pump Stations Capacity Increase - Replacement	1,500	0%	-	-	-	-	1,500	1,290	210			1,500
10.5074	2015-2031	O'Connor Flood Control Works	58,000	90%	52,200	-	-	-	5,800	4,118	1,682	5,800		
10.5074	2028	Rideau River Collector Upgrade	1,800	0%	-	-	-	1,620	180	128	52	180		
10.5074	2028	Rideau River Collector Twinning	8,900	0%	-	-	-	8,010	890	632	258	890		
10.2004	2015-2022	Wastewater System Renewal Program - Intensification Areas	129,825	97%	125,930	-	-	-	3,895	2,765	1,130	3,895		
10.2004	2023-2031	Wastewater System Renewal Program - Intensification Areas	427,785	87%	372,173	-	-	-	55,612	39,485	16,127	55,612		
East Urban Community														
10.00X1	2020	Neighbourhood 5 Sanitary Pumping Station Overflow	633	0%	-	-	-	-	633	519	114			633
10.00X2	2020	Avalon South N4 Trunk Sewers	2,576	0%	-	-	-	-	2,576	2,112	464			2,576
10.00X3	2015	Cumberland Trunk Sewers	817	0%	-	-	-	-	817	670	147			817
10.00X4	2016	Neighbourhood 5 Trunk Sewer Oversizing	1,522	0%	-	-	-	-	1,522	1,248	274			1,522
10.00X5	2015	Orleans South Business Park	1,837	0%	-	-	-	-	1,837	1,507	331			1,837
10.00X6	2020	EUC Sanitary Sewer System	1,246	0%	-	-	-	-	1,246	1,022	224			1,246
10.00X7	2017-2019	Cardinal Creek Sanitary Sewers	1,325	0%	-	-	-	-	1,325	1,087	239			1,325
South Urban Community														
10.00X8	2018	SUC Nepean Sewer Oversizing North of Jock	4,603	0%	-	-	-	-	4,603	4,051	552			4,603
10.00X9	2015	SUC Nepean Sewer Oversizing South of Jock	248	0%	-	-	-	-	248	218	30			248
10.00X10	2015	Leitrim Sanitary Sewer System	450	0%	-	-	-	-	450	396	54			450
10.00X11	2016-2020	Leitrim Sanitary Pump Station Expansion	8,883	0%	-	-	-	-	8,883	7,817	1,066			8,883
10.00X12	2020	SUC Riverside South	727	0%	-	-	-	-	727	639	87			727
West Urban Community														
10.00X13	2020	Kanata Lakes North	727	0%	-	-	-	-	727	639	87			727
10.00X14	2020	Town Centre Sewer System	552	0%	-	-	-	-	552	486	66			552
10.00X15	2016-2020	Kanata West Collector Sewers (South of QW)	5,805	0%	-	-	-	-	5,805	5,108	697			5,805
10.00X16	2019	Hazeldean Road Sanitary Sewers	804	0%	-	-	-	-	804	707	96			804
10.00X17	2018-2019	Jackson Trail Pumping Station and Sewer Oversizing	200	0%	-	-	-	-	200	176	24			200
Debt Payments														
10.4144	2015-2031	Kanata West Pump Station & Forcemain - Debt Payments	10,883	0%	-	-	-	-	10,883	8,706	2,177			10,883
10.4244	2015-2031	Kanata West Sewer Oversizing - Debt Payments	71	0%	-	-	-	-	71	57	14			71
10.1894	2015-2031	Barrhaven South Oversizing (South of Jock River) - Debt Payments	400	0%	-	-	-	-	400	320	80			400
10.0194	2015-2031	South Nepean Collector Phase 2 - Debt Payments	427	0%	-	-	-	-	427	342	85			427
10.2644	2015-2031	North Kanata Sewer Phase 2 - Debt Payments	256	0%	-	-	-	-	256	205	51			256
10.0494	2015-2031	Fernbank Sanitary Sewers - Debt Payments	640	0%	-	-	-	-	640	512	128			640
10.0594	2015-2031	March Pump Station Conversion - Debt Payments	142	0%	-	-	-	-	142	114	28			142
10.2044	2015-2031	Riverside South Community Trunk Oversizing - Debt Payments	36	0%	-	-	-	-	36	29	7			36
10.1794	2015-2031	Barrhaven South Oversizing (North of Jock River) - Debt Payments	33	0%	-	-	-	-	33	26	7			33
10.1894	2015-2031	Barrhaven South Oversizing (South of Jock River) - Debt Payments	908	0%	-	-	-	-	908	726	182			908
10.1AM4	2015	Manotick Pump Station and Forcemain ¹	13,000	48%	6,240	-	-	-	6,760	5,746	1,014			6,760
10.18M4	2015	Stonebridge Sanitary Sewer Oversizing ¹	97	48%	47	-	-	-	50	43	8			50
10.20M4	2015	Gravity Sanitary Sewer ¹	2,300	32%	736	-	-	-	1,564	1,329	235			1,564
10.30M4	2015	Mahogany Pump Station + Forcemain ¹	5,440	10%	544	-	-	-	4,896	4,162	734			4,896
10.70M4	2015	Sanitary Sewer Eastman ¹	306	10%	31	-	-	-	275	234	41			275
10.508A4	2015	Richmond Pump Station and Forcemain Expansion - Phase 1 ¹	2,500	0%	-	-	-	-	2,500	2,375	125			2,500
10.508B4	2025	Richmond Pump Station and Forcemain Expansion - Phase 2 ¹	27,500	0%	-	-	-	-	27,500	26,125	1,375			27,500
Total			788,661		568,034			9,630	210,997	174,327	36,670	66,377	101,074	43,546

NOTES:

¹ To be recovered within the boundaries of Rural Manotick

² To be recovered within the boundaries of the Village of Richmond

B-3 WATER

B-3 WATER

B-3.1 DC Calculation Planning Period

2015-2031

B-3.2 Service Coverage and Capital Program

Coverage: supply, distribution and growth component of replacement, including plant expansion, upgrade, water efficiency strategy (including previously incurred debt financed oversizing costs); elevated tanks, reservoirs, pumping stations, feeder mains, transmission mains net of local service requirements

Capital Program: prepared by staff. Major projects based on the 2013 Infrastructure Master Plan, 2012 Water Purification Plants Development Plan Update, 2013 Water Master Plan, Community Design Plans and Major Servicing Studies (e.g. 2012 South Urban Community Water Supply System Upgrade Needs), approved development studies, reliability and serviceability studies, Long Range Financial Plans and 10-Year Capital Budgets. Projects are per Provincial standards and City of Ottawa Design Guidelines and specifications. As indicated, projects have been included in City of Ottawa 10 –Year Capital Budgets and/or City of Ottawa Long Range Financial Plans. Otherwise, projects will be approved as part of the DC Background Study.

B-3.3 Local Service and Developer Contribution Policy

The water local service policy is documented in Appendix D.

B-3.4 Level of Service Measurement

- Quantity – Provincial standards and City Design Guidelines and specifications
- Quality – Benchmarks costs for smaller pipes and project costs for larger distribution pipes, elevated tanks, reservoirs and pumping stations

B-3.5 Benefit to Existing Development Deduction

With respect to water projects, no benefit to existing development deduction has been made for existing debt payments which relate to previous DC recoverable costs.

Benefit to existing deductions made for winter capacity expansion projects at Lemieux and Britannia reflect capacity-related allocations for new development.

For Infrastructure Master Planning and Environmental Assessment Studies, a deduction was made, generally consistent with the size of the existing 2014 population, in comparison with the forecast 2031 population and deductions in the 2009 DC Study.

With respect to watermain and related projects, deductions ranging from 10% to 83% were made generally consistent with the IMP.

B-3.6 Post Period/Excess Capacity Deduction

The availability of excess capacity has been addressed in modelling future needs on a net basis.

Treatment capacity increases due to growth were projected to 2060 in the IMP. Winter capacity expansions at Lemieux and Britannia are required prior to 2031. Recognizing the capacity expansions are in excess of demands to 2031, 63% of the Lemieux expansion and 50% of the Britannia expansion have been deducted as post period capacity.

For most watermain projects, a post period deduction of 10% of the growth component of projects (i.e. the cost remaining after deducting for benefit to existing development) has been made to recognize that these works will potentially be sized to accommodate flows greater than what is needed for the immediate growth forecast.

B-3.7 Provision for Grants, Subsidies and Other Contributions

No project subsidies are currently anticipated. Any direct developer funding has been netted out of the gross capital costs included.

B-3.8 10% Statutory Deduction

Not applicable.

B-3.9 Use of Existing Reserve Funds

The December 31, 2013 uncommitted DC reserve fund balance, with adjustment for DC revenue foregone over the existing bylaw term due to exemptions, reductions and phase-in policies, has been netted in making the DC calculation for water services.

B-3.10 Residential vs. Non-Residential Split

2014-2031 increment in average flow required for residential development vs. non-residential development determines the split which is 78%/22% (res./non-res.) in the case of water supply and treatment facilities based on the forecast demands in Figure B-6.

In the case of watermains and related projects, the residential/non-residential split is variable with the benefiting area circumstances, but averages 77%/23% Inside the Greenbelt, 92%/8% Outside the Greenbelt, and 85%/15% in the Rural - Manotick Service Area.

B-3.11 Area-Specific Cost Allocation

Residential Charge

The cost of water treatment and supply has been allocated on a uniform City-wide basis. The cost of watermains has been allocated between Inside the Greenbelt, Outside the Greenbelt, and Rural - Manotick Service Area.

Non-residential Charge

The calculation was made on a City-wide basis (with the exception of the Rural Manotick Service Area) in order to reflect current policy and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

FIGURE B-6

Water - No OWD	Residential - Mid		ICI Mid		Total - Mid		Growth in Demand	Res Growth	Non-Res Growth	Res Component of Growth
	2014	2031	2014	2031	2014	2031	Mid	Mid	Mid	%
igb	109.2	127.1	65.1	72.3	174.3	199.4	25.1	17.9	7.3	0.71
ogb	55.4	76.3	7.9	11.3	63.2	87.6	24.3	20.9	3.4	0.86
wuc	19.4	27.7	4.5	5.6	24.0	33.3	9.3	8.3	1.1	0.89
suc	17.0	24.5	1.4	2.7	18.4	27.3	8.9	7.6	1.3	0.85
euc	18.9	24.0	1.9	3.0	20.9	27.0	6.1	5.1	1.0	0.83
Total	164.6	203.3	72.9	83.6	237.5	287.0	49.5	38.8	10.7	0.78
1e	18.1	22.6	10.2	11.5	28.3	34.2	5.9	4.5	1.4	0.76
2c	30.1	33.8	29.6	31.8	59.8	65.6	5.8	3.6	2.2	0.63
leirim with Russell	4.2	5.7	0.5	0.6	4.7	6.4	1.7	1.5	0.2	0.89
manotick	0.2	1.5	0.0	0.2	0.3	1.7	1.5	1.3	0.2	0.89
Montreal Rd	2.7	5.2	0.9	1.0	3.6	6.2	2.6	2.5	0.1	0.97

Water - Residential OWD	Residential - Mid		ICI Mid		Total - Mid		Growth in Demand	Res Growth	Non-Res Growth	Res Component of Growth
	2014	2031	2014	2031	2014	2031	Mid	Mid	Mid	%
igb	203.4	224.4	65.1	72.3	268.4	296.8	28.4	21.1	7.3	0.74
ogb	142.5	191.8	7.9	11.3	150.4	203.1	52.7	49.3	3.4	0.94
wuc	57.1	76.4	4.5	5.6	61.6	82.0	20.4	19.4	1.1	0.95
suc	39.1	57.2	1.4	2.7	40.5	60.0	19.5	18.2	1.3	0.93
euc	46.4	58.1	1.9	3.0	48.3	61.1	12.8	11.7	1.0	0.92
Total	345.9	416.3	72.9	83.6	418.8	499.9	81.1	70.4	10.7	0.87
1e	35.3	40.6	10.2	11.5	45.4	52.1	6.7	5.3	1.4	0.79
2c	56.1	60.4	29.6	31.8	85.7	92.2	6.5	4.3	2.2	0.67
leirim with Russell	13.2	17.6	0.5	0.6	13.6	18.2	4.6	4.4	0.2	0.96
manotick	0.7	5.1	0.0	0.2	0.8	5.2	4.5	4.3	0.2	0.96
Montreal Rd	3.6	6.4	0.9	0.9	4.5	7.3	2.8	2.8	0.1	0.98

H:\OTTAWA\2014 DC\Shedule B5 & B6.xlsx\Figure B-6

City of Ottawa
City-Wide Development Charge Projects
Service Component - Water Supply

I t e m	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Less				Growth Cost \$000	Residential Share \$000	Non-residential Share \$000
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000	Post Period Capacity \$000			
21.0344	2015-2031	Infrastructure Master Planning (Water)	2,300	89%	2,056	-	-	244	190	54
21.0544	2015-2031	Water & Wastewater EA Studies	2,400	20%	480	-	-	1,920	1,498	422
11.0244	2014-2018	WPP Development Plan Winter Capacity Expansion (Lemieux)	58,900	25%	14,921	-	37,107	6,872	5,385	1,486
11.1344	2019-2024	WPP Development Plan Winter Capacity Expansion (Britannia)	43,300	35%	14,958	-	21,650	6,692	5,244	1,448
11.0024	2015	Britannia WPP Discharge Valving Upgrade	500	49%	246	-	187	67	53	15
Total			107,400		32,661	0	58,944	15,795	12,370	3,425

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City of Ottawa
Area-Specific Development Charge Projects
Service Component - Water Distribution

Item	Summary of Timing by Year(s) 2015-2031	Increased Service Needs Attributable to Anticipated Development - 2015-2031 Project Description	Gross Capital Cost Estimate \$000	Less				Growth Cost \$000	Residential Share \$000	Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000	Post Period Capacity \$000				Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
11.0094	2015-2016	Kanata West Feedermain	15,000	10%	1,500	-	1,350	12,150	11,517	633		12,150	
11.1944	2015-2016	Strandherd Drive Watermain	5,365	10%	537	-	483	4,346	4,054	291		4,346	
11.0194	2018	Greenbank Road Watermain	7,400	10%	740	-	666	5,994	5,592	402		5,994	
11.2344	2024	Orleans Watermain East Link	9,442	83%	7,834	-	161	1,447	1,200	247		1,447	
11.0494	2021-2022	March Road Pipe Upgrade (Zone 2W West Feedermain)	2,200	10%	220	-	198	1,782	1,689	93		1,782	
11.0694	2015-2016	Manotick Feedermain (Supply) 1	8,600	10%	860	-	774	6,966	5,941	1,025		6,966	
11.0694	2015-2016	Manotick Feedermain (Supply)2 ²	1,600	16%	256	-	134	1,210	1,028	181		1,210	
11.0894	2015-2018	Limebank Road Feedermain	6,751	10%	675	-	608	5,468	5,102	366		5,468	
11.2744	2016	Ottawa South Pump Station Expansion	9,900	49%	4,851	-	505	4,544	4,240	304		4,544	
11.3444	2016-2017	New Brittany Drive Pump Station	3,400	58%	1,972	-	143	1,285	955	330	1,285		
11.3444X	2016-2017	Brittany Drive Pump Station Suction Upgrade	3,100	50%	1,550	-	155	1,395	1,037	358	1,395		
11.1844	2015	New Carlington Heights Pump Station	10,300	72%	7,423	-	288	2,589	2,029	560	2,589		
11.1294	2015	Barrhaven 3C Feedermain - Foxfield at Holitman	2,500	10%	250	-	225	2,025	1,889	136		2,025	
11.1694	2024	Glen Cairn Pump Station Upgrade	3,100	10%	310	-	279	2,511	2,380	131		2,511	
11.1894	2018-2019	Ottawa South Reservoir Expansion	13,300	10%	1,330	-	1,197	10,773	10,051	722		10,773	
11.1994	2021-2022	Glen Cairn Reservoir Expansion	13,100	10%	1,310	-	1,179	10,611	10,058	553		10,611	
11.2494	2015	Hurdman Bridge Pump Station Zone 2C Upgrade	3,706	50%	1,853	-	185	1,668	1,307	361	1,668		
11.2594	2019-2020	New Riverside South Elevated Tank	13,500	10%	1,350	-	1,215	10,935	10,202	733		10,935	
11.1244	2015-2031	Off-site Reliability Links O/S	2,439	10%	244	-	220	1,976	1,698	277		1,976	
11.2944	2015-2018	Kanata West Transmission Mains O/S	1,120	10%	112	-	101	907	860	47		907	
11.0004	2016-2017	North Island Link (Manotick) 1	10,400	10%	1,040	-	936	8,424	7,185	1,239		8,424	
11.0694	2016-2017	Manotick Supply Watermain ²	10,000	48%	4,800	-	520	4,680	3,978	702		4,680	
11.00X4	2018	Mer Bleue Watermain-Brian Coburn South of Renaud Road	1,757	10%	176	-	-	1,581	1,297	285		1,581	
11.00Y4	2016	Palladium to Hazeldean Watermain	1,458	63%	919	-	-	539	475	65		539	
11.10M4	2015	Manotick EA Study ²	350	48%	168	-	0	182	155	27		182	
11.40M4	2015	Potter and Eastman Watermain ²	228	0%	0	-	0	228	194	34		228	
11.50M4	2015	Manotick Main St Watermain ²	764	7%	53	-	0	711	604	107		711	
Debt Payments													
11.2344	2018-2031	Orleans Transmission Main - Debt Payments	2,774	0%	-	-	-	2,774	2,300	474		2,774	
11.3244	2018-2031	Trim Road / St Joseph Watermains - Debt Payments	1,231	0%	-	-	-	1,231	997	234		1,231	
11.2944	2018-2031	Kanata West Transmission Mains - Debt Payments	904	0%	-	-	-	904	857	47		904	
11.0394	2018-2031	Leitrim Supply Watermain - Debt Payments	926	0%	-	-	-	926	901	25		926	
11.1294	2018-2031	Barrhaven PS Conversion to 3C - Debt Payments	105	0%	-	-	-	105	98	7		105	
11.0794	2019-2031	Fallowfield Road (Reservoir to Cedarview) - Debt Payments	1,371	0%	-	-	-	1,371	1,249	122		1,371	
11.0594	2019-2031	3C/2W Pressure Zone Separation - Debt Payments	2,643	0%	-	-	-	2,643	2,517	126		2,643	
11.3144	2015-2031	DCA-Trim Watermain OS (Portobello-Watters) - Debt Payments	431	0%	-	-	-	431	349	82		431	
Total			171,165		42,332	0	11,521	117,312	105,986	11,326	6,937	103,365	7,010

NOTES:

* same allocation as separate Fallowfield Road watermain / Barrhaven Reservoir PS upgrade projects from 2009 DC By-Law

¹ Same allocation as SUC Woodroffe main from 2009 DC By-law which this project replaces

² To be recovered from development in the rural area of Manotick only

B-4 STORMWATER DRAINAGE

B-4 STORMWATER DRAINAGE

B-4.1 DC Calculation Planning Period

2015-2031

B-4.2 Service Coverage and Capital Program

Coverage: stormwater management and drainage costs which are City-wide in nature or are generally not specifically related to a particular area, including master planning

Capital Program: Projects are per Provincial requirements and City policies, design guidelines and specifications. Projects are included in City of Ottawa capital budgets and/or the City's Long Range Financial Plan. Otherwise, projects will be approved as part of the DC Background Study.

B-4.3 Local Service and Developer Contribution Policy

The stormwater drainage local service policy is documented in Appendix D.

B-4.4 Level of Service Measurement

The level of service is based on MOE requirements and standard engineering design practice.

B-4.5 Benefit to Existing Development Deduction

Benefit to existing is assigned based on program-specific attributes.

B-4.6 Post Period/Excess Capacity Deduction

For the current review, it is assumed that stormwater runoff from infill and redevelopment will be limited, on a site-specific basis, to the existing rate of runoff, i.e. specific rehabilitation projects for storm drainage have not been included. This does not preclude future studies to identify major and minor drainage system upgrades to improve the existing level of service for which benefit to growth will be apportioned in future DC by-law updates.

B-4.7 Provision for Grants, Subsidies and Other Contributions

No subsidies are anticipated.

B-4.8 10% Statutory Deduction

Not applicable

B-4.9 Use of Existing Reserve Funds

The December 31, 2013 uncommitted DC reserve fund balance, with adjustment for DC revenue foregone over the existing bylaw term due to exemptions, reductions and phase-in policies, has been included in the DC calculation for these storm water drainage works. In keeping with the policy enacted in the 2004 Development Charge by-law, any unanticipated surplus funds identified in area-specific stormwater reserve funds are allocated to the City-wide stormwater account, which are then used to fund stormwater project requirements. The intent of this policy is to ensure that the funds which have been collected for this use continue to be designated to finance growth-related stormwater capital projects.

B-4.10 Residential vs. Non-Residential Split

The population/employment ratio (2014-31) of 61:39 (res./non-res.) has been used.

B-4.11 Area-Specific Cost Allocation

Residential Charge

Projects are City-wide as they are included in a program to upgrade, rehabilitate or monitor systems, thereby broadly benefiting infill development. SWM projects that can be allocated to specific growth areas are, in most cases, included in the separate area-specific stormwater DC Background Study.

Non-residential Charge

The calculation was made on a City-wide basis in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible throughout the City.

B-5 STORMWATER PONDS

(Under Separate Cover)

**B-6 PROTECTION
(POLICE AND EMERGENCY SERVICE (FIRE))**

B-6 PROTECTION (Police and Emergency Service (Fire))

B-6.1 DC Calculation Planning Period

2015-2024

B-6.2 Service Coverage and Capital Program

Coverage: cost of design, construction, furniture, equipment and site preparation for police detachments, training areas, property warehouse space, etc.; specialty vehicles and traffic escort; and police cars.

fire stations, including training and ancillary facilities; all forms of fire rolling stock plus ancillary equipment (e.g. hoses) plus loose equipment (e.g. defibs).

Capital Program: prepared by Police, based on the 2013 Facilities Strategic Plan 2014-2031 ten-year average service levels, staff complement approved by Police Service Board in annual budgets. Projects included in City of Ottawa capital budgets or the City's Long Range Financial Plan. Otherwise, projects will be approved as part of the DC Background Study.

prepared by Emergency and Protective Services (Fire Services), based on level of service standards, staff complements, growth projections and response times. Projects included in City of Ottawa capital budgets or the City's Long Range Financial Plan. Otherwise, projects will be approved as part of the DC Background Study.

B-6.3 Local Service and Developer Contribution Policy

Not applicable.

B-6.4 Level of Service Measurement

Separate schedules follow for divisional buildings (sq.ft./capita), police vehicles incl. patrol and specialty vehicles (vehicles/capita), officer upfit (\$/capita) and portable radios (number/capita).

Fire facilities (sq.ft./capita), vehicles (number per capita) and firefighter equipment (sets/capita).

Patrol vehicles have been included, consistent with municipal practice in the Greater Toronto Area, in that they have a standardized, equivalent functional life in excess of six years when considering their “24/7” usage.

Outstanding debt principal payments have been accounted for within the level of service cap, reflecting committed service capacity to accommodate future development.

B-6.5 Benefit to Existing Development Deduction

Establishment of a new station (Complex and South Divisional Facility) will meet the needs of growth in the south area as well as allow for the consolidation of certain City-wide services at a single location. A 40% deduction has been made as a result.

No benefit to existing development deduction was made for previous DC recoverable costs for which long term debt has been issued.

A 10% deduction was made from the cost of the Ottawa East Fire Station in order to recognize net response time improvement potential. Higher benefit to existing development deductions were made for Rural Water Supply requirements (30%).

B-6.6 Post Period/Excess Capacity Deduction

The 2024 DC-funded service level for Protection is within the City’s historical 10-year average. As a result, no post period capacity is involved.

B-6.7 Provision for Grants, Subsidies and Other Contributions

Not applicable.

B-6.8 10% Statutory Deduction

Not applicable.

B-6.9 Use of Existing Reserve Funds

To be used for the 2009-2013 DC recoverable costs of future DC projects.

B-6.10 Residential vs. Non-Residential Split

The incremental population and employment ratio has been applied (i.e. 66% residential and 34% non-residential).

B-6.11 Area-Specific Cost Allocation

Residential Charge

The South Facility has been allocated on a City-wide basis as a number of the functions to be accommodated serve the entire City.

Fire and police station costs are allocated on a Large Area basis¹, in accordance with the location of the station involved, based on restricted, response time-based service areas (broadened somewhat by back-up support conventions).

Non-residential Charge

The calculation was made on a City-wide basis in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

¹ Large Area basis defined as Inside the Greenbelt, Outside the Greenbelt, and Rural areas.

City of Ottawa
Development Charge Background Study
Historic Level of Service

Service: Police
Type of Capital Asset: Police Divisional Buildings - Square Feet of Building Space

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/s.f.)	Total Value
Elgin Street Head Quarters - Office Space ¹	151,875	151,875	151,875	151,875	151,875	151,875	151,875	151,875	151,875	151,875	\$500	\$759,375,000
Greenbank - West Division	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	\$400	\$220,000,000
St. Joseph - East Division	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	\$400	\$132,000,000
Kanata - West Division	8,665	8,665	8,665	8,665	8,665	0	0	0	0	0	\$400	\$17,330,000
Leitrim - Division and Quarter Master	22,816	22,816	22,816	22,816	22,816	22,816	22,816	22,816	22,816	22,816	\$400	\$91,264,000
Swansea - Property Facility	30,800	30,800	30,800	30,800	30,800	30,800	30,800	30,800	30,800	30,800	\$400	\$123,200,000
Algonquin College - Training Facility	36,711	36,711	36,711	36,711	36,711	36,711	36,711	36,711	36,711	36,711	\$400	\$146,844,000
Elgin Street - Courts Section	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	\$400	\$48,000,000
Youth Centre	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	8,500	\$200	\$17,000,000
Airport Policing Office	2,215	2,215	2,215	2,215	2,215	2,215	2,215	2,215	2,215	2,215	\$200	\$4,430,000
Drug Section - Offsite Office	2,376	2,376	4,691	4,691	4,691	4,691	4,691	4,691	4,691	4,691	\$200	\$8,456,000
Community Police Centres	25,967	25,967	25,967	25,967	25,967	16,995	16,995	16,995	13,317	13,317	\$200	\$41,490,800
Huntmar - West Division	0	0	0	0	0	39,705	39,705	39,705	39,705	39,705	\$400	\$79,410,000
Fairmont	0	0	0	0	0	26,031	26,031	26,031	26,684	26,684	\$200	\$26,292,200
Queensview	0	0	0	0	0	0	0	0	0	33,870	\$200	\$6,774,000
Total	389,925	389,925	392,240	392,240	392,240	440,339	440,339	440,339	437,314	471,184		\$1,721,866,000
Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		4,186,085
Per Capita Service Level	0.4610	0.4536	0.4505	0.4451	0.4384	0.4897	0.4828	0.4776	0.4694	0.4999		\$411.33

10 Year Average	2004-2013
Quantity Standard	0.4668
Quality Standard	\$411.33
Combined Quantity/Quality Level (\$/capita)	\$192.01

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$192.01
Eligible DC \$ Amount	\$22,114,666

Notes:

¹ Underground parking facility totalling 145k sq ft has been excluded from Elgin Street Figure.

**City of Ottawa
Development Charge Background Study
Historic Level of Service**

Service: Police
Type of Capital Asset: Police Patrol Vehicles - Number of Vehicles/Officer

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/vehicle)	Total Value
Sworn Complement	1,161	1,161	1,251	1,266	1,300	1,356	1,371	1,377	1,363	1,339	\$35,000	\$151,024,985
Vehicles/Officer Ratio	0.3333333	0.3333333	0.3333333	0.3333333	0.3333333	0.3333333	0.3333333	0.3333333	0.3333333	0.3333333	\$1.00	\$3.33333300
Total	387	387	417	422	433	452	457	459	454	446		\$151,024,988
Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		4,315
Per Capita Standard per 1000 Persons	0.4575	0.4502	0.4789	0.4789	0.4844	0.5026	0.5011	0.4978	0.4876	0.4736		\$35,000

10 Year Average	2004-2013
Quantity Standard	0.4813
Quality Standard	\$35,000
Combined Quantity/Quality Level (\$/1000 Persons)	\$16,846
Combined Quantity/Quality Level (\$/capita)	\$16.85

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$16.85
Eligible DC \$ Amount	\$1,940,181

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**City of Ottawa
Development Charge Background Study
Historic Level of Service**

Service: Police
Type of Capital Asset: Value of Specialty Vehicles

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/vehicle)	Total Value
#0080-56 Ford Cube Van	\$18,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1.00	\$18,000
#01001-54 Freightliner Truck	\$178,860	\$178,860	\$178,860	\$178,860	\$178,860	\$178,860	\$178,860	\$178,860	\$178,860	\$178,860	\$1.00	\$1,788,600
#01002-54 Freightliner Truck	\$365,000	\$365,000	\$365,000	\$365,000	\$365,000	\$365,000	\$365,000	\$365,000	\$365,000	\$365,000	\$1.00	\$3,650,000
#03661-26 Ford F450	\$18,000	\$18,000	\$18,000	\$18,000	\$18,000	\$0	\$0	\$0	\$0	\$0	\$1.00	\$90,000
#03662-13 Ford E450	\$75,500	\$75,500	\$75,500	\$75,500	\$75,500	\$75,500	\$75,500	\$0	\$0	\$0	\$1.00	\$528,500
#03663-13 Ford E450	\$85,380	\$85,380	\$85,380	\$85,380	\$85,380	\$85,380	\$85,380	\$85,380	\$85,380	\$85,380	\$1.00	\$853,800
#09951-13 Chev Cube Van	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$1.00	\$240,000
#09995-13 GMC Express	\$25,200	\$25,200	\$25,200	\$25,200	\$25,200	\$25,200	\$25,200	\$25,200	\$25,200	\$25,200	\$1.00	\$252,000
#09998-13 Chev Express	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$0	\$0	\$0	\$0	\$0	\$1.00	\$150,000
#03664-B5 Ford F450	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$0	\$0	\$0	\$1.00	\$735,000
#03665-B5 Ford F450	\$118,000	\$118,000	\$118,000	\$118,000	\$118,000	\$118,000	\$118,000	\$0	\$0	\$0	\$1.00	\$826,000
#03666-C5 Ford E450	\$0	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$108,000	\$1.00	\$972,000
#03667-B5 Ford F450	\$0	\$66,000	\$66,000	\$66,000	\$66,000	\$66,000	\$66,000	\$66,000	\$66,000	\$66,000	\$1.00	\$594,000
Surveillance Aircraft	\$1,071,000	\$1,071,000	\$1,071,000	\$1,071,000	\$1,071,000	\$1,071,000	\$1,071,000	\$1,071,000	\$1,071,000	\$1,071,000	\$1.00	\$10,710,000
#03668-B5 Ford F450	\$0	\$0	\$0	\$0	\$0	\$58,231	\$58,231	\$58,231	\$58,231	\$58,231	\$1.00	\$291,156
Total	\$2,113,940	\$2,269,940	\$2,269,940	\$2,269,940	\$2,269,940	\$2,280,171	\$2,280,171	\$1,981,671	\$1,981,671	\$1,981,671		\$21,699,056
Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		21,699,056
Per Capita Standard per 1000 Persons	2,499.15	2,640.37	2,606.85	2,575.87	2,537.23	2,535.68	2,500.23	2,149.21	2,126.87	2,102.59		\$1.00

10 Year Average	2004-2013
Quantity Standard	\$2,427.41
Quality Standard	\$1.00
Combined Quantity/Quality Level (\$/1000 Persons)	\$2,427
Combined Quantity/Quality Level (\$/capita)	\$2.43

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$2.43
Eligible DC \$ Amount	\$279,576

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City of Ottawa
 Development Charge Background Study
 Historic Level of Service

Service: Police
 Type of Capital Asset: New Officer Upfit - Number of Officers

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/Officer)	Total Value
Sworn Complement	1,161	1,161	1,251	1,266	1,300	1,356	1,371	1,377	1,363	1,339	\$1,500	\$19,417,500
Total	1,161	1,161	1,251	1,266	1,300	1,356	1,371	1,377	1,363	1,339		\$19,417,500

Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		12,945
Per Capita Standard per 1000 Persons	1.3726	1.3505	1.4367	1.4366	1.4531	1.5080	1.5033	1.4934	1.4629	1.4207		\$1,500

10 Year Average	2004-2013
Quantity Standard	1.4438
Quality Standard	\$1,500
Combined Quantity/Quality Level (\$/1000 Persons)	\$2,166
Combined Quantity/Quality Level (\$/capita)	\$2.17

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$2.17
Eligible DC \$ Amount	\$249,434

Notes:
 Upfit items included are: weapons, baton, body armour, etc..

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City of Ottawa
 Development Charge Background Study
 Historic Level of Service

Service: Police
 Type of Capital Asset: Portable Radios

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/Radio)	Total Value
Number of Portable Radios	1,003	1,003	1,076	1,083	1,116	1,166	1,166	1,215	1,406	1,407	\$6,000	\$69,846,000
Total	1,003	1,003	1,076	1,083	1,116	1,166	1,166	1,215	1,406	1,407		\$69,846,000

Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		11,641
Per Capita Standard per 1000 Persons	1.1858	1.1667	1.2357	1.2290	1.2474	1.2967	1.2785	1.3177	1.5090	1.4929		\$6,000

10 Year Average	2004-2013
Quantity Standard per 1,000 Persons	1.2959
Quality Standard	\$6,000
Combined Quantity/Quality Level (\$/1000 Persons)	7.775
Combined Quantity/Quality Level (\$/capita)	\$7.78

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$7.78
Eligible DC \$ Amount	\$895,532

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City of Ottawa
Development Charge Background Study
Historic Level of Service

Service: Emergency Services (Fire)
Type of Capital Asset: Square Feet of Building Space

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/s.f.)	Total Value
Charlemagne - Station #53 - Fallingbrook	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	\$387.40	\$69,732,000
Cumberland Village - Station #72 - Old Montreal Road	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	6,600	\$387.40	\$25,568,400
Vars - Station #73 - Rockdale Avenue	1,800	1,800	1,800	7,970	7,970	7,970	7,970	7,970	7,970	7,970	\$387.40	\$23,705,006
Navan - Station #71 - Colonnial Road	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	\$387.40	\$17,045,600
Barrhaven - Station #44 - Greenbank Road	20,724	20,724	20,724	20,724	20,724	20,724	20,724	20,724	20,724	20,724	\$387.40	\$80,284,776
Bells Corners - Station #43 - Richmond Road	8,334	8,334	8,334	8,334	8,334	8,334	8,334	8,334	8,334	8,334	\$387.40	\$32,285,916
Viewmount - Station #24 - Viewmount Drive	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	9,706	\$387.40	\$37,601,044
Knoxdale - Station #25 - Knoxdale Road	6,130	6,130	6,130	6,130	6,130	6,130	6,130	6,130	6,130	6,130	\$387.40	\$23,747,620
Leitrim - Station #32 - Leitrim Road	9,548	9,548	9,548	9,548	9,548	9,548	9,548	9,548	9,548	9,548	\$387.40	\$36,988,952
South Urban - Station #37 - Earl Armstrong	0	12,546	12,546	12,546	12,546	12,546	12,546	12,546	12,546	12,546	\$387.40	\$43,742,884
Blair - Station #55 - Blair Road	21,889	21,889	21,889	21,889	21,889	21,889	21,889	21,889	21,889	21,889	\$387.40	\$84,797,986
Orleans - Station #52 - 6213 Jean D'Arc	7,724	7,724	7,724	7,724	7,724	7,724	7,724	7,724	7,724	7,724	\$387.40	\$29,922,776
Blackburn - Station #54 - Old Innes Road	13,369	13,369	13,369	13,369	13,369	13,369	13,369	13,369	13,369	13,369	\$387.40	\$51,791,506
Teron - Station #42 - Teron Road	7,208	7,208	7,208	7,208	7,208	7,208	7,208	7,208	7,208	7,208	\$387.40	\$27,923,792
Eagleson - Station #41 - Eagleson Road	7,645	7,645	7,645	7,645	7,645	7,645	7,645	7,645	7,645	7,645	\$387.40	\$29,616,730
Riddell - Station #45 - Riddell Drive	3,727	3,727	3,727	3,727	3,727	3,727	3,727	3,727	3,727	3,727	\$387.40	\$14,438,398
Stittsville - Station #81 - Main Street	12,460	12,460	12,460	12,460	12,460	12,460	12,460	12,460	12,460	12,460	\$387.40	\$48,270,040
Richmond - Station #82 - Perth Street	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	\$387.40	\$27,118,000
Metcalfe - Station #91 - Victoria Road	8,236	8,236	8,236	8,236	8,236	8,236	8,236	8,236	8,236	8,236	\$387.40	\$31,906,264
Osgoode - Station #92 - Nixon Drive	4,600	4,298	4,298	4,298	4,298	4,298	4,298	4,298	4,298	4,298	\$387.40	\$16,767,447
Greely - Station #93 - Parkway Road	5,670	5,670	5,670	5,670	5,670	5,670	5,670	5,670	5,670	5,670	\$387.40	\$21,965,580
Manotick - Station #94 - Main Street	8,106	8,106	8,106	8,106	8,106	8,106	8,106	8,106	8,106	8,106	\$387.40	\$31,402,644
Carling - Station #23 - Carling Avenue	21,030	21,030	21,030	21,030	21,030	21,030	21,030	21,030	21,030	21,030	\$387.40	\$81,470,220
O'Connor - Station #12 - O'Connor Street	11,673	11,673	11,673	11,673	11,673	11,673	11,673	11,673	11,673	11,673	\$387.40	\$45,221,202
Lincoln Fields - Station #22 - Richmond Road, Ottawa	13,858	13,858	13,858	13,858	13,858	13,858	13,858	13,858	13,858	13,858	\$387.40	\$53,685,892
King Edward - Station #13, King Edward	11,235	11,235	11,235	11,235	11,235	11,235	11,235	11,235	11,235	11,235	\$387.40	\$43,524,390
Woodroffe - Station #21 - Woodroffe Avenue	13,029	13,029	13,029	13,029	13,029	13,029	13,029	13,029	13,029	13,029	\$387.40	\$50,474,346
Preston - Station #11- Preston Street	12,383	12,383	12,383	12,383	12,383	12,383	12,383	12,383	12,383	12,383	\$387.40	\$47,971,742
Conroy - Station #31 - Conroy Road	19,447	19,447	19,447	19,447	19,447	19,447	19,447	19,447	19,447	19,447	\$387.40	\$75,337,678
McCarthy - Station #33 - McCarthy Road	13,609	13,609	13,609	13,609	13,609	13,609	13,609	13,609	13,609	13,609	\$387.40	\$52,721,266
Brookfield - Station #34 - Brookfield Dr.	14,571	14,571	14,571	14,571	14,571	14,571	14,571	14,571	14,571	14,571	\$387.40	\$56,448,054
Dispatch - 1423 Randall Avenue	4,550	4,550	4,550	4,550	4,550	4,550	4,550	4,550	4,550	4,550	\$387.40	\$17,626,700
Alta Vista - Station #35 - Alta Vista Drive	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	\$387.40	\$46,488,000
Training Centre - Station #36	600	600	600	600	600	600	600	600	600	600	\$387.40	\$2,324,400
Industrial - Station #36 - Industrial	31,254	31,254	31,254	31,254	31,254	31,254	31,254	31,254	31,254	31,254	\$387.40	\$121,077,996
Montreal - Station #51 - Montreal Road	13,934	13,934	13,934	13,934	13,934	13,934	13,934	13,934	13,934	13,934	\$387.40	\$53,980,316
Coventry - Station #56 - Overbrook	13,084	13,084	13,084	13,084	13,084	13,084	13,084	13,084	13,084	13,084	\$387.40	\$50,687,416
Beechwood - Station #57 - Beechwood Avenue	15,280	15,280	15,280	15,280	15,280	15,280	15,280	15,280	15,280	15,280	\$387.40	\$59,194,720
North Gower - Station #84	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	\$387.40	\$13,171,600
Outbuilding - North Gower	80	80	80	80	80	80	80	80	80	80	\$387.40	\$309,920
Troop Line Bldg	3,440	3,440	3,440	3,440	3,440	3,440	3,440	3,440	3,440	3,440	\$387.40	\$13,326,560
Kinburn - Station #61 - Kinburn Side Road	3,780	3,780	3,780	3,780	3,780	3,780	3,780	3,780	3,780	3,780	\$387.40	\$14,643,720

**City of Ottawa
Development Charge Background Study
Historic Level of Service**

Service: Emergency Services (Fire)
Type of Capital Asset: Square Feet of Building Space

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/s.f.)	Total Value
Fitzroy - Station #62 - Harbour Street	2,204	2,204	2,204	2,204	2,204	2,204	2,204	2,204	2,204	2,204	\$387.40	\$8,538,296
Fitzroy Out Bldg	704	704	704	704	704	704	704	704	704	704	\$387.40	\$2,727,296
Constance Bay - Station #63 - Woodlawn	4,176	4,176	4,176	4,176	4,176	4,176	4,176	4,176	4,176	4,176	\$387.40	\$16,177,824
Carp - Station #64 - Donald B. Munro	4,773	4,773	4,773	4,773	4,773	4,773	4,773	4,773	4,773	4,773	\$387.40	\$18,490,602
Dunrobin - Station #66 - Dunrobin Road	1,930	1,930	1,930	1,930	1,930	1,930	1,930	1,930	1,930	1,930	\$387.40	\$7,476,820
Dunrobin Out Bldg	144	144	144	144	144	144	144	144	144	144	\$387.40	\$557,856
Corkery - Station #84 - Old Almonte Road	2,896	2,896	2,896	2,896	2,896	2,896	2,896	2,896	2,896	2,896	\$387.40	\$11,219,104
Stittsville- Stn46 Iber Rd	0	0	0	0	0	0	0	13,133	13,133	13,644	\$387.40	\$15,461,134
Barhaven -Stn 47 Greenbank Rd	0	0	0	0	0	0	0	13,133	13,133	14,498	\$387.40	\$15,791,974
Dunrobin - Station #66 - Dunrobin Road	0	0	0	0	0	0	0	0	0	768	\$387.40	\$297,523
Total	441,940	454,184	454,184	460,354	460,354	460,354	460,354	486,620	486,620	489,264		\$1,803,047,927

Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		4,654,228
Per Capita Service Level	0.5225	0.5283	0.5216	0.5224	0.5146	0.5119	0.5048	0.5278	0.5223	0.5191		\$387.40

10 Year Average	2004-2013
Quantity Standard	0.5195
Quality Standard	\$387.40
Combined Quantity/Quality Level (\$/capita)	\$201.25

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$201.25
Eligible DC \$ Amount	\$23,179,464

**City of Ottawa
Development Charge Background Study
Historic Level of Service**

Service: Emergency Services (Fire)
Type of Capital Asset: Number of Vehicles

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/vehicle)	Total Value
71-Hazmat	7	7	7	7	7	7	7	7	7	7	\$750,000	\$52,500,000
73-Equipment	2	2	2	2	2	0	0	0	0	0	\$240,000	\$2,400,000
74-Pumper	63	63	63	63	63	63	69	69	69	69	\$500,000	\$327,000,000
75-Aerial platform	11	11	11	11	7	13	13	13	13	13	\$1,200,000	\$116,000,000
76-Aerial	8	8	8	8	13	8	8	8	8	8	\$1,000,000	\$102,000,000
78-Medical	2	2	2	2	2	0	0	0	0	0	\$50,000	\$10,000,000
79-Tanker	22	22	22	22	26	26	26	27	27	27	\$550,000	\$135,850,000
54-Command	2	2	2	2	1	1	1	1	1	1	\$1,000,000	\$14,000,000
81-Bus	1	1	1	1	0	0	0	0	0	0	\$100,000	\$400,000
Fire Safety House	2	2	2	2	0	2	2	2	2	2	\$110,000	\$1,980,000
Total	120	120	120	120	121	120	126	127	127	127		\$762,130,000

Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		1,228
Per Capita Standard per 1000 Persons	0.1419	0.1396	0.1378	0.1362	0.1352	0.1334	0.1382	0.1377	0.1363	0.1347		\$620,627

10 Year Average	2004-2013
Quantity Standard	0.1371
Quality Standard	\$620,627
Combined Quantity/Quality Level (\$/capita)	\$85.09

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$85.09
Eligible DC \$ Amount	\$9,800,007

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**City of Ottawa
Development Charge Background Study
Historic Level of Service**

Service: Emergency Services (Fire)
Type of Capital Asset: Number of Equipped Fire Fighters

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/item)	Total Value
Career Fire Fighters	872	872	872	872	872	856	872	917	906	903	\$9,921	\$87,443,694
Volunteer Fire Fighters	425	425	425	425	425	450	450	498	486	470	\$9,921	\$44,436,159
Total	1,297	1,297	1,297	1,297	1,297	1,306	1,322	1,415	1,392	1,373		\$131,879,853

Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		13,293
Per Capita Standard per 1000 Persons	1.5333	1.5087	1.4895	1.4718	1.4497	1.4523	1.4496	1.5346	1.4940	1.4568		\$9,921

10 Year Average	2004-2013
Quantity Standard	1.4840
Quality Standard	\$9,921
Combined Quantity/Quality Level (\$/capita)	\$14.72

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$14.72
Eligible DC \$ Amount	\$1,695,694

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City of Ottawa
Area-Specific Development Charge Projects
Service Component - Fire and Police Services (Protection)

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Eligible Level of Service \$000	Less			Growth Cost \$000	66% Residential Share \$000	34% Non-residential Share \$000	Allocation of Expenditures by Area		
					Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000				Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
4.0344	2016	Ottawa East Fire Station	9,500	9,500	10%	950	-	8,550	5,643	2,907		8,550	
4.1244	2015-2024	Rural Water Supply Requirements	400	400	30%	120	-	280	185	95			280
Debt Payments (Principal)													
4.1144	2015-2024	Ottawa East Fire Station - Debt Payments	124	124	0%	-	-	124	82	42		124	
4.1244	2015-2024	Rural Water Supply Requirements - Debt Payments	18	18	0%	-	-	18	12	6			18
4.0344	2015-2024	Ottawa West Fire Station - Debt Payments	741	741	0%	-	-	741	489	252		741	
4.0644	2015-2024	Ottawa South Fire Station - Debt Payments	493	493	0%	-	-	493	325	168		493	
13.0644	2015-2020	Facility Acquisition - West - Debt Payments	8,653	8,653	0%	-	-	8,653	5,711	2,942		7,615	1,038
Debt Payments (Interest)													
4.1144	2015-2024	Ottawa East Fire Station - Debt Payments	157	157	0%	-	-	157	104	53		157	
4.1244	2015-2024	Rural Water Supply Requirements - Debt Payments	23	23	0%	-	-	23	15	8			23
4.0344	2015-2024	Ottawa West Fire Station - Debt Payments	942	942	0%	-	-	942	622	320		942	
4.0644	2015-2024	Ottawa South Fire Station - Debt Payments	625	625	0%	-	-	625	413	213		625	
13.0644	2015-2020	Facility Acquisition - West - Debt Payments	1,268	1,268	0%	-	-	1,268	837	431		1,116	152
Total			22,944	22,944		1,070	-	21,874	14,438	7,437	-	20,363	1,511

*** This assessment is based on the City of Ottawa urban boundaries remaining the same. If the urban boundary is adjusted for example there may be a need for a new fire station to serve Kanata South/Nepean West based on the data captured in the latest standards of cover review.

H:\OTTAWA\2014 DC\Templates from City\4+13 DC Project Template Fire and Police Services 2014 March 11 WATSON.xls\Area-Specific

B-7 PUBLIC TRANSIT

B-7 PUBLIC TRANSIT

B-7.1 DC Calculation Planning Period

2015-2024

B-7.2 Service Coverage and Capital Program

Coverage: Ten year program for studies and masterplans; system improvements; vehicles; fare control systems; park and ride; corridor protection, transitways,
- includes light rail and Bus Rapid Transit line expansions with associated bridges, park & ride facilities, stations, vehicles.

Capital Program: Prepared by the Planning and Growth Management Branch based on the 2013 Transportation Master Plan. Projects have been included in recent City of Ottawa capital budgets and/or the City's Long Range Financial Plan. Otherwise, projects will be approved as part of the DC Background Study.

B-7.3 Local Service and Developer Contribution Policy

Not applicable (other than Bus Shelter coverage).

B-7.4 Level of Service Measurement

Separate schedules follow for Transit Building (sq.ft./capita), Transit (vehicles/capita), Transit Bus Stops and Shelters (units/capita) and Transit Corridor/Station (km/capita).

Outstanding debt principal payments have been accounted for within the service level cap, reflecting committed service capacity to accommodate future development.

B-7.5 Benefit to Existing Development Deduction

No benefit to existing development deduction has been made for those transit projects for which debenture debt payments are outstanding relative to previously-determined DC recoverable costs.

A deduction of 32% was made for benefit to existing development for all other projects. This reflects the benefit associated with the planned increase in the transit modal share and is based

on the calculations in Figure B-7, consistent with the 2004 and 2009 Background Studies adjusted for the modal split change in the interim.

B-7.6 Post Period/Excess Capacity Deduction

The transit corridor system contains some oversized capacity to accommodate growth beyond 2024 and a deduction has been made from the 10-year DC recoverable cost as a result. That deduction of 12.2% is based on the calculations in Figure B-7.

B-7.7 Provision for Grants, Subsidies and Other Contributions

Provision has been made for Federal and/or Provincial contributions related to rapid transit expansion. The anticipated two-thirds subsidy is based on official funding agreements is applicable to the vast majority of the light rail transit program and amounting to 56% of total gross costs for transit, excluding debt payments which are already net of grant funding.

B-7.8 10% Statutory Deduction

A 10% deduction has been made from the DC recoverable costs pursuant to s.s.5(1)8 of the DCA (other than in the case of previous DC recoverable costs carried forward from debt charges).

B-7.9 Use of Uncommitted DC Reserve Fund Balance

The December 31, 2013 uncommitted DC reserve fund balance, with adjustment for DC revenue foregone over the existing bylaw term due to exemptions, reductions and phase-in policies, has been included in the DC calculation for these public transit works.

B-7.10 Residential vs. Non-Residential Split

The population/employment ratio (2014-2024) has been used (i.e. 60% residential and 40% non-residential). Employment used in calculating the non-residential allocation includes no fixed place of work and work at home employment.

B-7.11 Area-Specific Cost Allocation

Residential Charge

Transit service is provided on a City-wide, integrated basis; as a uniform City-wide charge.

Non-residential Charge

The calculation was made on a City-wide basis in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

**FIGURE B-7
BTE AND POST PERIOD DEDUCTIONS**

BENEFIT TO EXISTING CALCULATION

2014 projected population = 954,085
 2024 projected population = 1,061,035
 Growth (2014-2024) = 106,950

2011 a.m. peak period transit modal share = 22.4%
 2031 a.m. peak period transit modal share target = 26%
 Transit modal share increase by 2014 = $(26\% - 22.4\%)/20y * 3y = 0.5\%$
 Projected 2014 a.m. peak period transit modal share = $22.4\% + 0.5\% = 22.9\%$
 Transit modal share increase by 2024 = $(26\% - 22.4\%)/20y * 13y = 2.3\%$
 Projected 2024 a.m. peak period transit modal share = $22.4\% + 2.3\% = 24.7\%$

Method:

2011 transit ridership/a.m. peak period = 101,900
 2031 projected transit ridership/a.m. peak period = 156,300

2014 estimated a.m.p.p transit ridership = $101,900 + ((156,300 - 101,900)/20y * 3y) = 110,060$
 2014 estimated a.m.p.h total trips = $110,060 * 100/22.9 = 480,611$

2024 estimated a.m.p.p. transit ridership = $101,900 + ((156,300 - 101,900)/20y * 13y) = 137,260$

Growth in a.m.p.p transit ridership (2014 – 2024) = $137,260 - 110,060 = 27,200$

Increase in transit trips for existing population (2014 – 2024) = $(480,611 * 24.7\%) - 110,060 = 8,651$
 Increase in transit trips for new growth (2014 – 2024) = $27,200 - 8,651 = 18,549$

Benefit to Existing = $8,651/27,200 = 31.8\%$

POST PLANNING PERIOD BENEFIT

2011 transit ridership/a.m. peak period = 101,900
 2031 projected transit ridership/a.m. peak period = 156,300

Method:

2024 estimated a.m.p.p. transit ridership = $101,900 + ((156,300 - 101,900)/20y * 13y) = 137,260$

Post Planning Period Benefit = $(156,300 - 137,260)/ 156,300 = 12.2\%$

**City of Ottawa
Development Charge Background Study
Historic Level of Service**

Service: Public Transit
Type of Capital Asset: Square Feet of Building Space

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/s.f.)	Total Value
Transit Bus Garages ^{1,2}	715,899	715,899	715,899	715,899	715,899	775,148	926,114	926,114	926,114	880,338	\$437	\$3,501,822,151
Transit Outdoor Bus Storage ^{1,3}	142,000	142,000	142,000	142,000	142,000	232,800	232,800	362,400	459,100	459,100	\$45	\$110,529,000
Total	857,899	857,899	857,899	857,899	857,899	1,007,948	1,158,914	1,288,514	1,385,214	1,339,438		\$3,612,351,151

Population	762,890	775,196	785,107	794,422	806,564	810,289	821,908	830,683	839,413	842,504		10,469,523
Per Capita Standard per 1000 Persons	1124.54	1106.69	1092.72	1079.90	1063.65	1243.94	1410.03	1551.15	1650.22	1589.83		\$345.03

10 Year Average	2004-2013
Quantity Standard	1,291.27
Quality Standard	\$345
Combined Quantity/Quality Level	\$445.53

DC Amount (before deductions)	10-year
Forecast Population	103,715
\$ per Capita	\$445.53
Eligible DC \$ Amount	\$46,208,313

- Notes:**
- ¹ Uncertain of data pre-2009 data. 2009-2012 data is based on information provided by Asset Management (ISD) and confirmed with data received from Transit Services.
 - ² Total Value represents the replacement value of bus storage facilities; based on data provided by Asset Management (ISD). Values have been increased to account for inflation (3%)
 - ³ Total Value is based upon high level estimate of the cost to construct 75-space bus parking facility at Industrial in 2012. 3% inflation has been applied.

City of Ottawa
Development Charge Background Study
Historic Level of Service

Service: Public Transit
Type of Capital Asset: Number of Vehicles

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/vehicle)	Total Value
Mini Buses ~25'	0	0	0	1	1	1	0	0	0	0	n/a	
Mid Sized Buses ~30'	0	0	0	0	0	0	0	0	0	0	n/a	
Standard Buses 40'	655	685	715	786	746	735	578	484	389	325	\$438,000	\$2,670,924,000
Hybrid 40'						33	177	177	177	177	\$644,000	\$477,204,000
High Capacity Buses (60')	227	227	227	227	278	275	278	359	359	359	\$731,000	\$2,058,496,000
High Capacity Buses (Double Deckers)						3	3	3	41	75	\$778,000	\$97,250,000
Urban Rail Vehicles ²	3	3	3	3	3	3	3	3	3	9	\$5,640,000	\$203,040,000
Para Transpo Vehicles	0	0	0	0	91	91	91	91	91	89	\$106,000	\$57,664,000
Non-Revenue Vehicles:												
Light	0	0	0	0	128	137	134	118	135	124	\$39,200	\$30,419,200
Heavy	0	0	0	0	46	66	54	53	61	51	\$128,000	\$42,368,000
Equipment/Component	0	0	0	0	28	40	51	51	63	57	\$5,900	\$1,711,000
Total	885	915	945	1,017	1,321	1,384	1,369	1,339	1,319	1,266		\$5,639,076,200

Population	762,890	775,196	785,107	794,422	806,564	810,289	821,908	830,683	839,413	842,504		11,760
Per Capita Standard per 1000 Persons	1.1601	1.1803	1.2037	1.2802	1.6378	1.7080	1.6656	1.6119	1.5713	1.5027		\$479,513.28

10 Year Average	2004-2013
Quantity Standard	1.4522
Quality Standard	\$479,513
Combined Quantity/Quality Level	\$696.35

DC Amount (before deductions)	10-year
Forecast Population	103,715
\$ per Capita	\$696.35
Eligible DC \$ Amount	\$72,221,856

Notes:

¹ Revenue, Para and Non-revenue vehicle values provided for 2014 have been increased by 3% (inflation) from 2013 value.

² 2014 Value/vehicle is based upon 2011 purchase price of \$33,837,053 for the 6 new Alstom trains. Inflation has not been applied.

H:\OTTAWA\2014 DC\Templates from City\2014 Public Transit Services Level of Service Sheets March 19 Urban.xls\ehicles

**City of Ottawa
Development Charge Background Study
Historic Level of Service**

Service: Public Transit
Type of Capital Asset: Unit Cost

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/unit)	Total Value
Transit Shelters ³	1,077	1,087	1,090	1,091	1,102	1,153	1,206	1,273	1,315	1,340	\$5,665	\$66,473,110
Bus Stops	6,278	6,290	6,389	6,417	6,450	6,410	6,242	5,740	5,850	5,500	\$97	\$5,960,820
Total	7,355	7,377	7,479	7,508	7,552	7,563	7,448	7,013	7,165	6,840		\$72,433,930

Population	762,890	775,196	785,107	794,422	806,564	810,289	821,908	830,683	839,413	842,504		73,300
Per Capita Standard per 1000 Persons	9.6410	9.5163	9.5261	9.4509	9.3632	9.3337	9.0618	8.4425	8.5357	8.1187		\$988.18

10 Year Average	2004-2013
Quantity Standard	9.0990
Quality Standard	\$988
Combined Quantity/Quality Level	\$8.99

DC Amount (before deductions)	10-year
Forecast Population	103,715
\$ per Capita	\$8.99
Eligible DC \$ Amount	\$932,553

Notes:

¹ Value (\$/unit) for transit shelter includes shelter, bench and pad and is based on 2013 cost.

² Value (\$/unit) for bus stops includes pole and flag. Not included is Route Description box - \$170.

³ Transit Shelter data pre-2009 does not appear correct. As such, the data 1999-2009 has been changed such that all data (1999-2013) comes from the same source.

⁴ Values provided for 2014 have been adjusted to 2014 (3% inflation).

City of Ottawa
 Development Charge Background Study
 Historic Level of Service

Service: Public Transit
 Type of Capital Asset: Transit Corridors, Stations and ROW

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/km)	Total Value
Transitway and Dedicated Lanes:												
Transitway (roadway and rail line)	54.30	57.50	57.50	58.00	58.00	60.20	60.20	64.40	64.40	64.40		\$128,041,417
Dedicated Lanes												\$41,347,897
Station Entrances/Exits												\$37,511,428
Loops												\$4,209,895
Ramps												\$2,823,355
Park and Ride Lots												\$30,840,133
Transit Structures:												
Transit Bridges												\$616,837,234
Transit Bridge Culverts												\$971,507
Transit Medium Culverts (dia: 1m < 3m)												\$496,895
Transit Retaining Walls												\$13,193,037
Capital Rail Bridges												\$97,681,075
Capital Rail Bridge Culverts												\$97,551
Capital Rail Medium Culverts (1m-3m)												\$380,242
Capital Rail Retaining Walls												\$121,413
Buildings and Facilities:												
Administrative Buildings												\$102,561,038
Fleet Maintenance Garage												\$281,849,478
Transitway Stations (includes platform)												\$84,647,633
O-Train Stations												\$2,377,184
Park and Ride Building												\$877,404
Storage Facility												\$2,721,319
Land - Transit Segments and Park & Ride Facilities												\$645,442,958
Total	54.30	57.50	57.50	58.00	58.00	60.20	60.20	64.40	64.40	64.40		\$2,095,030,094

Population	762,890	775,196	785,107	794,422	806,564	810,289	821,908	830,683	839,413	842,504		64.40
Per Capita Standard per 1000 Persons	0.0712	0.0742	0.0732	0.0730	0.0719	0.0743	0.0732	0.0775	0.0767	0.0764		\$32,531,523.20

10 Year Average	2004-2013
Quantity Standard	0.0742
Quality Standard	\$32,531,523
Combined Quantity/Quality Level	\$2,413.84

DC Amount (before deductions)	10-year
Forecast Population	103,715
\$ per Capita	\$2,413.84
Eligible DC \$ Amount	\$250,351,314

City of Ottawa
City-Wide Development Charge Projects
Service Component - Public Transit

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less Grants, Subsidies & Contributions \$000	Net Costs	Less Post Period Capacity 12.2% \$000	Subtotal	Less		Gross Growth Cost \$000	Beyond Service Level Cap \$000	Eligible Level of Service \$000	90% Statutory Portion \$000	60% Residential Share \$000	40% Non-residential Share \$000
								Benefit to Existing Development %	Benefit to Existing Development \$000						
2.0244	2015-2024	Rapid Transit Environmental Assessment Studies	9,800	-	9,800	1,196	8,604	32%	2,736	5,868	3,032	2,836	2,552	1,533	1,019
2.0844	2015-2024	Transit Corridor Protection	20,000	-	20,000	2,440	17,560	32%	5,584	11,976	6,188	5,788	5,209	3,129	2,079
2.5444	2015-2024	Park and Ride Facilities and Studies	19,600	-	19,600	2,391	17,209	32%	5,472	11,737	6,065	5,672	5,105	3,067	2,038
2.1394	2016	Origin-destination Survey	400	-	400	49	351	32%	112	239	124	116	104	63	42
2.1394	2021	Origin-destination Survey	400	-	400	49	351	32%	112	239	124	116	104	63	42
2.1494	2017	TRANS Model Projects	1,000	-	1,000	122	878	32%	279	599	310	289	261	157	104
2.1494	2023	TRANS Model Projects	800	-	800	98	702	32%	223	479	248	232	209	125	83
2.0194	2015	Western Transitway (Bayshore-Moodie)	64,640	-	64,640	7,886	56,754	32%	18,048	38,706	20,001	18,705	16,835	10,114	6,720
2.0014	2017-2019	Baseline Transit Corridor (Baseline Station-Heron Station)	131,000	-	131,000	15,982	115,018	32%	36,576	78,442	40,533	37,909	34,118	20,498	13,620
Light Rail Transit Phase 2 - Includes the following: 2015 - Pre-construction & Design \$40M, 2017 - Property Acquisitions \$110M, 2018 - Construction \$1.825B															
2.089A4	2015-2018	O-Train Extension-Greenboro to Bowesville & New Stations-Gladstone & Walkley	99,000	65,825	33,175	4,047	29,128	32%	9,277	19,851	10,257	9,593	8,634	5,187	3,447
2.089B4	2015-2018	Orleans Light Rail Transit Phase 2 - Blair to Place d'Orleans	500,000	332,450	167,550	20,441	147,109	32%	46,854	100,255	51,805	48,450	43,605	26,198	17,407
2.089C4	2015-2018	Western Light Rail Transit Phase 2 - Tunney's Pasture to Baseline	980,000	651,602	328,398	40,065	288,333	32%	91,834	196,499	101,537	94,962	85,466	51,348	34,118
2.089D4	2015-2018	Western Light Rail Transit Phase 2 - Lincoln Fields to Bayshore	396,000	263,300	132,700	16,189	116,510	32%	37,109	79,401	41,029	38,372	34,535	20,749	13,786
2.089E4	2018	Light Rail Transit Phase 2 - Vehicles	453,000	301,200	151,800	18,520	133,281	32%	42,450	90,831	46,935	43,896	39,506	23,735	15,771
2.0024	2015-2024	TMP Transit Priority Network	60,000	-	60,000	7,320	52,680	32%	16,779	35,901	18,551	17,350	15,615	9,381	6,233
2.0994	2020-2024	Bus and Rail Vehicles	75,000	-	75,000	9,150	65,850	32%	20,973	44,877	23,189	21,688	19,519	11,727	7,792
2.0004	2015-2022	Transit Fare Control Systems	18,000	-	18,000	2,196	15,804	32%	5,034	10,770	5,565	5,205	4,684	2,814	1,870
Debt Payments (Principal)															
2.084B4	2015-2024	Transitway Corridor Protection - Debt Payments	420	-	420	-	420	-	-	420	217	203	203	122	81
2.1944		West Transitway (Pinecrest to Bayshore) - Debt Payments													
2.0394	2015-2024	Strandherd / Armstrong Bridge - Debt Payments	3,777	-	3,777	-	3,777	0%	-	3,777	1,952	1,825	1,825	1,097	729
2.084B4		Transitway Corridor Protection - Debt Payments													
2.1944		West Transitway (Pinecrest to Bayshore) - Debt Payments													
2.0194		West Transitway (Bayshore-Moodie) - Debt Payments													
2.2X94		Woodroffe Station at Strandherd - Debt Payments													
2.3X94		West Transitway (SW Transitway to Pinecrest) - Debt Payments													
2.0094	Confederation Line - Debt Payments														
2.2144	2015-2024	North/South Link Extension - Barrhaven Town - Debt Payments	1,293	-	1,293	-	1,293	0%	-	1,293	668	625	625	375	249
2.069X4	2015-2024	2010 Transit Priority Corridors - Debt Payments	26	-	26	-	26	0%	-	26	13	13	13	8	5
2.XXXX	2015-2024	Light Rail Transit Office - Debt Payments	11	-	11	-	11	0%	-	11	6	5	5	3	2
2.0594	2015-2024	2010 Miscellaneous Vehicle Growth - Debt Payments	5	-	5	-	5	0%	-	5	3	2	2	1	1
2.0594	2015-2024	2010 Bus Growth - Debt Payments	873	-	873	-	873	0%	-	873	451	422	422	253	168
2.0844	2015-2024	Transit Corridor Protection 2011 - Debt Payments	212	-	212	-	212	0%	-	212	110	102	102	62	41
2.2544	2015-2024	2012 Park and Ride Facilities - Debt Payments	66	-	66	-	66	0%	-	66	34	32	32	19	13
2.0144	2016-2024	Transportation Master Plan 2010 - Debt Payments	9	-	9	-	9	0%	-	9	5	4	4	3	2
2.0194	2016-2024	West Twy (Bayshore Station to Moodie) - Debt Payments	1,520	-	1,520	-	1,520	0%	-	1,520	785	735	735	441	293
2.0244	2016-2024	2010 Rapid Transit EA Studies - Debt Payments	44	-	44	-	44	0%	-	44	23	21	21	13	8
2.0394	2016-2024	Transit Priority (Woodroffe/Baseline) - Debt Payments	50	-	50	-	50	0%	-	50	26	24	24	15	10
2.0744	2016-2024	Park and Ride Expansion Program - Studies 2010 - Debt Payments	1	-	1	-	1	0%	-	1	1	0	0	0	0
2.0844	2016-2024	Transit Corridor Protection 2010 - Debt Payments	44	-	44	-	44	0%	-	44	23	21	21	13	8
2.1594	2016-2024	Coventry Overpass to Train Station - Debt Payments	78	-	78	-	78	0%	-	78	40	38	38	23	15

City of Ottawa
 City-Wide Development Charge Projects
 Service Component - Public Transit

	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less Grants, Subsidies & Contributions \$000	Net Costs	Less Post Period Capacity 12.2% \$000	Subtotal	Less		Gross Growth Cost \$000	Beyond Service Level Cap \$000	Eligible Level of Service \$000	90% Statutory Portion \$000	60% Residential Share \$000	40% Non-residential Share \$000
								Benefit to Existing Development %	Benefit to Existing Development \$000						
2.1594	2016-2024	West Twy Corridor (Terry Fox - Eagleson) - Debt Payments	33	-	33	-	33	0%	-	33	17	16	16	10	6
2.1594	2016-2024	West Twy - Terry Fox Underpass - Debt Payments	99	-	99	-	99	0%	-	99	51	48	48	29	19
2.1944	2016-2024	West Transitway (Pinecrest to Bayshore) - Debt Payments	744	-	744	-	744	0%	-	744	384	360	360	216	144
2.1944	2016-2024	West Transitway (SW Twy to Pinecrest) Debt Payments	558	-	558	-	558	0%	-	558	288	270	270	162	108
2.2544	2016-2024	Woodroffe Station at Strandherd - Debt Payments	465	-	465	-	465	0%	-	465	240	225	225	135	90
2.2544	2016-2024	Park and Ride Facilities 2010 - Debt Payments	45	-	45	-	45	0%	-	45	23	22	22	13	9
2.2844	2016-2024	Cumberland Transitway (Navan - Blair Station) Debt Payments	54	-	54	-	54	0%	-	54	28	26	26	16	10
2.3944	2016-2024	Transit Garage - Debt Payment	277	-	277	-	277	0%	-	277	143	134	134	80	53
2.069X4	2016-2024	2010 Transit Priority Measures - Debt Payments	36	-	36	-	36	0%	-	36	19	17	17	10	7
	2016-2024	2010 Transitway Stations - Debt Payments	20	-	20	-	20	0%	-	20	10	10	10	6	4
	2016-2024	2010 Transit Network Capital Projects - Debt Payments	13	-	13	-	13	0%	-	13	7	6	6	4	3
2.1594	2016-2024	Hunt Club Pedestrian Overpass South Keys - Debt Payments	122	-	122	-	122	0%	-	122	63	59	59	35	24
2.0594	2016-2024	Non-Revenue Vehicle Additions - 2011 - Debt Payments	13	-	13	-	13	0%	-	13	7	6	6	4	3
2.2544	2016-2024	Park and Ride Facilities 2011 - Debt Payments	46	-	46	-	46	0%	-	46	24	22	22	13	9
2.0244	2016-2024	2013 Rapid Transit EA Studies - Debt Payments	22	-	22	-	22	0%	-	22	11	11	11	6	4
2.0144	2016-2024	Transportation Master Plan 2011 - Debt Payments	11	-	11	-	11	0%	-	11	6	5	5	3	2
2.069X4	2016-2024	2011 Transit Priority Corridors - Debt Payments	180	-	180	-	180	0%	-	180	93	87	87	52	35
2.069X4	2016-2024	2011 Transit Priority Measures - Debt Payments	148	-	148	-	148	0%	-	148	76	72	72	43	29
2.0394	2017-2024	Strandherd / Armstrong Bridge - Debt Payments	355	-	355	-	355	0%	-	355	183	172	172	103	68
2.0844	2018-2024	2012 Transit Corridor Protection - Debt Payments	32	-	32	-	32	0%	-	32	17	15	15	9	6
2.0144	2018-2024	2012 Transportation Master Plan - Debt Payments	9	-	9	-	9	0%	-	9	5	4	4	3	2
2.0594	2018-2024	Non-Revenue Vehicle Additions - 2012 - Debt Payments	9	-	9	-	9	0%	-	9	5	4	4	3	2
	2018-2024	Transit Priority Corridor 2012 - Debt Payments	32	-	32	-	32	0%	-	32	17	15	15	9	6
	2018-2024	Transit Priority Measures 2012 - Debt Payments	26	-	26	-	26	0%	-	26	13	13	13	8	5
2.1494	2018-2024	2012 TRANS Projects - Debt Payments	16	-	16	-	16	0%	-	16	8	8	8	5	3
2.069X4	2018-2024	2012 TMP Supplemental Transit Network - Debt Payments	0	-	0	-	0	0%	-	0	0	0	0	0	0
2.0294	2018-2024	LKD- South West Twy (Baseline to Norice) - Debt Payments	814	-	814	-	814	0%	-	814	421	393	393	236	157
2.0844	2018-2024	2013 Transit Corridor Protection - Debt Payments	32	-	32	-	32	0%	-	32	17	15	15	9	6
2.2544	2018-2024	2013 Park & Ride Facilities & Studies - Debt Payments	139	-	139	-	139	0%	-	139	72	67	67	40	27
2.0594	2018-2024	Miscellaneous Vehicle Growth - Debt Payments	5	-	5	-	5	0%	-	5	3	2	2	1	1
2.1594	2018-2024	Hickory Street Multi-Use O-Train Crossing - Debt Payments	48	-	48	-	48	0%	-	48	25	23	23	14	9
	2018-2024	O-OTM Civic Works - Cash Allowances - Debt Payments	322	-	322	-	322	0%	-	322	166	156	156	93	62
2.069X4	2018-2024	Canadian Tire Centre/Hwy 417 Bus Ramp - Debt Payments	4	-	4	-	4	0%	-	4	2	2	2	1	1
2.0094	2018-2024	Confederation Line - Debt Payments	25,199	-	25,199	-	25,199	0%	-	25,199	13,021	12,178	12,178	7,316	4,861
		Subtotal	2,866,997	1,614,377	1,252,620	148,140	1,104,480		339,452	765,028	395,314	369,714	334,596	201,023	133,571
		Debt Payments (Interest)													
2.084B4	2015-2024	Transitway Corridor Protection - Debt Payments	940	-	940	-	940	-	-	940		940	940	565	375
2.1944		West Transitway (Pinecrest to Bayshore) - Debt Payments													
2.0394		Strandherd / Armstrong Bridge - Debt Payments													
2.084B4		Transitway Corridor Protection - Debt Payments													
2.1944		West Transitway (Pinecrest to Bayshore) - Debt Payments													
2.0194	2015-2024	West Transitway (Bayshore-Moodie) - Debt Payments	8,968	-	8,968	-	8,968	0%	-	8,968		8,968	8,968	5,388	3,580
2.2X94		Woodroffe Station at Strandherd - Debt Payments													
2.3X94		West Transitway (SW Transitway to Pinecrest) - Debt Payments													
2.0094		Confederation Line - Debt Payments													

City of Ottawa
City-Wide Development Charge Projects
Service Component - Public Transit

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less Grants, Subsidies & Contributions \$000	Net Costs	Less Post Period Capacity 12.2% \$000	Subtotal	Less		Gross Growth Cost \$000	Beyond Service Level Cap \$000	Eligible Level of Service \$000	90% Statutory Portion \$000	60% Residential Share \$000	40% Non-residential Share \$000	
								Benefit to Existing Development %	Benefit to Existing Development \$000							
2.2144	2015-2024	North/South Link Extension - Barrhaven Town - Debt Payments	1,636	-	1,636	-	1,636	0%	-	1,636		1,636	1,636	983	653	
2.069X4	2015-2024	2010 Transit Priority Corridors - Debt Payments	32	-	32	-	32	0%	-	32		32	32	19	13	
2.XXXX	2015-2024	Light Rail Transit Office - Debt Payments	15	-	15	-	15	0%	-	15		15	15	9	6	
2.0594	2015-2024	2010 Miscellaneous Vehicle Growth - Debt Payments	7	-	7	-	7	0%	-	7		7	7	4	3	
2.0594	2015-2024	2010 Bus Growth - Debt Payments	1,104	-	1,104	-	1,104	0%	-	1,104		1,104	1,104	663	441	
2.0844	2015-2024	Transit Corridor Protection 2011 - Debt Payments	269	-	269	-	269	0%	-	269		269	269	162	107	
2.2544	2015-2024	2012 Park and Ride Facilities - Debt Payments	84	-	84	-	84	0%	-	84		84	84	50	34	
2.0144	2016-2024	Transportation Master Plan 2010 - Debt Payments	11	-	11	-	11	0%	-	11		11	11	7	4	
2.0194	2016-2024	West Twy (Bayshore Station to Moodie) - Debt Payments	2,027	-	2,027	-	2,027	0%	-	2,027		2,027	2,027	1,218	809	
2.0244	2016-2024	2010 Rapid Transit EA Studies - Debt Payments	59	-	59	-	59	0%	-	59		59	59	35	24	
2.0394	2016-2024	Transit Priority (Woodroffe/Baseline) - Debt Payments	66	-	66	-	66	0%	-	66		66	66	40	26	
2.0744	2016-2024	Park and Ride Expansion Program - Studies 2010 - Debt Payments	2	-	2	-	2	0%	-	2		2	2	1	1	
2.0844	2016-2024	Transit Corridor Protection 2010 - Debt Payments	59	-	59	-	59	0%	-	59		59	59	35	24	
2.1594	2016-2024	Coventry Overpass to Train Station - Debt Payments	104	-	104	-	104	0%	-	104		104	104	62	42	
2.1594	2016-2024	West Twy Corridor (Terry Fox - Eagleson) - Debt Payments	45	-	45	-	45	0%	-	45		45	45	27	18	
2.1594	2016-2024	West Twy - Terry Fox Underpass - Debt Payments	131	-	131	-	131	0%	-	131		131	131	79	52	
2.1944	2016-2024	West Transitway (Pinecrest to Bayshore) - Debt Payments	991	-	991	-	991	0%	-	991		991	991	595	396	
2.1944	2016-2024	West Transitway (SW Twy to Pinecrest) Debt Payments	743	-	743	-	743	0%	-	743		743	743	446	297	
2.2544	2016-2024	Woodroffe Station at Strandherd - Debt Payments	620	-	620	-	620	0%	-	620		620	620	372	248	
2.2544	2016-2024	Park and Ride Facilities 2010 - Debt Payments	59	-	59	-	59	0%	-	59		59	59	35	24	
2.2844	2016-2024	Cumberland Transitway (Navan - Blair Station) Debt Payments	73	-	73	-	73	0%	-	73		73	73	44	29	
2.3944	2016-2024	Transit Garage - Debt Payment	370	-	370	-	370	0%	-	370		370	370	222	148	
2.069X4	2016-2024	2010 Transit Priority Measures - Debt Payments	47	-	47	-	47	0%	-	47		47	47	28	19	
	2016-2024	2010 Transitway Stations - Debt Payments	30	-	30	-	30	0%	-	30		30	30	18	12	
	2016-2024	2010 Transit Network Capital Projects - Debt Payments	19	-	19	-	19	0%	-	19		19	19	11	8	
2.1594	2016-2024	Hunt Club Pedestrian Overpass South Keys - Debt Payments	163	-	163	-	163	0%	-	163		163	163	98	65	
2.0594	2016-2024	Non-Revenue Vehicle Additions - 2011 - Debt Payments	18	-	18	-	18	0%	-	18		18	18	11	7	
2.2544	2016-2024	Park and Ride Facilities 2011 - Debt Payments	62	-	62	-	62	0%	-	62		62	62	37	25	
2.0244	2016-2024	2013 Rapid Transit EA Studies - Debt Payments	30	-	30	-	30	0%	-	30		30	30	18	12	
2.0144	2016-2024	Transportation Master Plan 2011 - Debt Payments	15	-	15	-	15	0%	-	15		15	15	9	6	
2.069X4	2016-2024	2011 Transit Priority Corridors - Debt Payments	240	-	240	-	240	0%	-	240		240	240	144	96	
2.069X4	2016-2024	2011 Transit Priority Measures - Debt Payments	198	-	198	-	198	0%	-	198		198	198	119	79	
2.0394	2017-2024	Strandherd / Armstrong Bridge - Debt Payments	452	-	452	-	452	0%	-	452		452	452	272	180	
2.0844	2018-2024	2012 Transit Corridor Protection - Debt Payments	48	-	48	-	48	0%	-	48		48	48	29	19	
2.0144	2018-2024	2012 Transportation Master Plan - Debt Payments	13	-	13	-	13	0%	-	13		13	13	8	5	
2.0594	2018-2024	Non-Revenue Vehicle Additions - 2012 - Debt Payments	13	-	13	-	13	0%	-	13		13	13	8	5	
	2018-2024	Transit Priority Corridor 2012 - Debt Payments	48	-	48	-	48	0%	-	48		48	48	29	19	
	2018-2024	Transit Priority Measures 2012 - Debt Payments	38	-	38	-	38	0%	-	38		38	38	23	15	
2.1494	2018-2024	2012 TRANS Projects - Debt Payments	24	-	24	-	24	0%	-	24		24	24	14	10	
2.069X4	2018-2024	2012 TMP Supplemental Transit Network - Debt Payments	1	-	1	-	1	0%	-	1		1	1	0	0	
2.0294	2018-2024	LKD- South West Twy (Baseline to Norice) - Debt Payments	1,198	-	1,198	-	1,198	0%	-	1,198		1,198	1,198	720	478	
2.0844	2018-2024	2013 Transit Corridor Protection - Debt Payments	48	-	48	-	48	0%	-	48		48	48	29	19	
2.2544	2018-2024	2013 Park & Ride Facilities & Studies - Debt Payments	205	-	205	-	205	0%	-	205		205	205	123	82	
2.0594	2018-2024	Miscellaneous Vehicle Growth - Debt Payments	7	-	7	-	7	0%	-	7		7	7	4	3	
2.1594	2018-2024	Hickory Street Multi-Use O-Train Crossing - Debt Payments	70	-	70	-	70	0%	-	70		70	70	42	28	
	2018-2024	O-OTM Civic Works - Cash Allowances - Debt Payments	473	-	473	-	473	0%	-	473		473	473	284	189	
2.069X4	2018-2024	Canadian Tire Centre/Hwy 417 Bus Ramp - Debt Payments	6	-	6	-	6	0%	-	6		6	6	4	2	
2.0094	2018-2024	Confederation Line - Debt Payments	81,143	-	81,143	-	81,143	0%	-	81,143		81,143	81,143	48,751	32,392	
		Total	2,970,021	1,614,377	1,355,644	148,140	1,207,504			339,452	868,052	395,314	472,738	437,620	262,917	174,700

B-8 PARKS DEVELOPMENT

B-8 PARKS DEVELOPMENT

B-8.1 DC Calculation Planning Period

2015-2024

B-8.2 Service Coverage and Capital Program

Coverage: the cost of hard/soft landscaping (other than grading, drainage, seeding, sodding), sports fields, courts, and related development items, capital program for active district, neighbourhood, community-wide and passive parks as well as trails.

Capital Program: prepared by Recreation and Community Services Branch of the City Operations Department, based on historical 10-year average service levels and anticipated population growth. The parks development program, including trails, has been established based on projected park/trail need by facility type in specific geographic locations for the period affected by the DC by-law. The capital program was established in recognition of projected cash flow and affordability and identifies parks credits carried forward from previous years.

B-8.3 Local Service and Developer Contribution Policy

Provision of the land, sanitary and stormwater and 50 mm (minimum) water service to the park property line, and vault clearing are the landowner's responsibility. All other development of the land, including grading, drainage, seeding, sodding, landscaping and related items are development charge project components.

B-8.4 Level of Service Measurement

Separate schedules follow for Passive and Active parks (ha./capita) and Trails (km./capita).

B-8.5 Benefit to Existing Development Deduction

No deduction for benefit to existing development has been made for park credits carried forward and for the majority of the neighbourhood park and parkette projects.

A 0-10% deduction has been made for community parks and active district parks. Finally, a 25% benefit to existing development deduction has been made for all trails. This higher scale of

benefit to existing development recognizes that, although such parks and trails are constructed primarily as a result of growth and within growth areas, they have a broader capture area than active neighbourhood parks which are mostly constructed within, and provide service solely to, new growth subdivisions. However, these trails serve only to maintain the City's average service level and, from that perspective, provide no overall benefit to existing development.

B-8.6 Post Period/Excess Capacity Deduction

The City's 2013 service level for Parks Development is lower than the City's historical 10-year average. As a result, no excess capacity is involved. The 2024 DC-funded service level for Parks Development is below the City's historical 10-year average. As a result, no post period capacity is involved other than for the Millennium Park project where approximately 58% of the cost has been deducted as post period capacity reflecting the buildout of the benefitting area.

B-8.7 Provision for Grants, Subsidies and Other Contributions

Not applicable.

B-8.8 10% Statutory Deduction

A 10% deduction has been made from the DC recoverable costs pursuant to s.s.5(1)8 of the DCA.

B-8.9 Use of Uncommitted DC Reserve Fund Balance

To be used for the 2009-2013 DC recoverable costs of future DC projects.

B-8.10 Residential vs. Non-Residential Split

95% residential and 5% non-residential, based on estimated service usage and accepted municipal norms.

B-8.11 Area-Specific Cost Allocation

Residential Charge

The Parks Development program for Non-District Parks has been allocated on a Large Area recovery basis, consistent with the largely neighbourhood and community focus of the program. For District Parks, the Millennium Park project costs have been allocated to the defined Millennium Park Area, with all other District Parks projects being allocated to development Outside the Greenbelt (excluding the Millennium Park Area).

Non-residential Charge

The calculation was made on a uniform, City-wide basis in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

City of Ottawa
 Development Charge Background Study
 Historic Level of Service

Service: Parks Development
 Type of Capital Asset: Kilometres of Developed Trails

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/Hectare)	Total Value
Community Trails	104.46	105.26	106.61	107.84	110.04	110.32	110.32	110.32	110.32	110.32	\$393,967	\$427,773,838
Total	104.46	105.26	106.61	107.84	110.04	110.32	110.32	110.32	110.32	110.32		\$427,773,838

Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		1,085.81
Per Capita Standard per 1000 Persons	0.1235	0.1224	0.1224	0.1224	0.1230	0.1227	0.1210	0.1196	0.1184	0.1171		\$393,967

10 Year Average	2004-2013
Quantity Standard per 1,000 persons	0.1212
Quality Standard	\$393,967
Combined Quantity/Quality Level (\$/1000	\$47,749
Combined Quantity/Quality Level (\$/capita)	\$47.75

DC Amount (before deductions)	10-year
Forecast Population \$ per Capita	115,175
\$ per Capita	\$47.75
Eligible DC \$ Amount	\$5,499,475

City of Ottawa
Area-Specific Development Charge Projects
Service Component - Parks Development (Non-District Parks)

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less			Growth Cost \$000	90% Statutory Portion \$000	95% Residential Share \$000	5% Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000					Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
5.0014	2015	Avalon South Recreational Pathway	370	25%	93	-	277	249	237	12		249	
5.0024	2021	Lakebreeze Neighbourhood Park 1	710	0%	-	-	710	639	607	32		639	
5.0034	2022	Lakebreeze Neighbourhood Park 2	730	0%	-	-	730	657	624	33		657	
5.0044	2015	Summerside Phase I Parkette - Mattamy - DCA	280	0%	-	-	280	252	239	13		252	
5.0054	2017	Summerside Phase II Parkette - Mattamy - DCA	410	0%	-	-	410	369	351	18		369	
5.0064	2017	Tenth Line / Mer Bleue Community Park 2	1,530	5%	77	-	1,453	1,308	1,243	65		1,308	
5.0074	2020	Tenth Line / Mer Bleue Parkette 3	400	0%	-	-	400	360	342	18		360	
5.0084	2020	Tenth Line / Mer Bleue Parkette 4	400	0%	-	-	400	360	342	18		360	
5.0094	2019	Tenth Line / Mer Bleue Montfort Health Hub Parkette	250	0%	-	-	250	225	214	11		225	
5.0104	2018	Mer Bleue Expansion Area CDP Neighbourhood Park 1	590	0%	-	-	590	531	504	27		531	
5.0114	2022	Mer Bleue Expansion Area CDP Neighbourhood Park 2	730	0%	-	-	730	657	624	33		657	
5.0124	2023	Mer Bleue Expansion Area CDP Neighbourhood Park 3	750	0%	-	-	750	675	641	34		675	
5.0134	2022	Mer Bleue Expansion Area CDP Neighbourhood Park 4	730	0%	-	-	730	657	624	33		657	
5.0144	2023	Mer Bleue Expansion Area CDP Community Park 5	1,020	5%	51	-	969	872	828	44		872	
5.0154	2017	Cardinal Village Neighbourhood Park 1	570	0%	-	-	570	513	487	26		513	
5.0164	2021	Cardinal Village Neighbourhood Park 2	710	0%	-	-	710	639	607	32		639	
5.0174	2022	Cardinal Village Neighbourhood Park 3	730	0%	-	-	730	657	624	33		657	
5.0184	2023	Cardinal Village Neighbourhood Park 4	750	0%	-	-	750	675	641	34		675	
5.0194	2023	Cardinal Village Community Park 5	1,990	5%	100	-	1,890	1,701	1,616	85		1,701	
5.0204	2016	Humanics Linear Park	160	0%	-	-	160	144	137	7			144
5.0214	2015	Dr. Taite Linear Park	110	0%	-	-	110	99	94	5			99
5.0224	2017	Cassandra Parkette	280	0%	-	-	280	252	239	13			252
5.0234	2016	Lalvallee Plaza Parkette Extension	230	0%	-	-	230	207	197	10			207
5.0244	2015	Spring Valley Community Park	1,560	5%	78	-	1,482	1,334	1,267	67		1,334	
5.0254	2016	Trails Edge Neighbourhood Park 2	850	0%	-	-	850	765	727	38		765	
5.0264	2020	Trails Edge Parkette 3	290	0%	-	-	290	261	248	13		261	
5.0284	2020	Eastboro Phase II Neighbourhood Park 1	780	0%	-	-	780	702	667	35		702	
5.0294	2020	Eastboro Phase II Neighbourhood Park 2	780	0%	-	-	780	702	667	35		702	
5.0304	2021	Eastboro Phase II Neighbourhood Park 3	240	0%	-	-	240	216	205	11		216	
5.0314	2017	Rossignol Parkette	240	0%	-	-	240	216	205	11		216	
5.0324	2018	Cardinal Creek Neighbourhood Park (18A)	1,360	5%	68	-	1,292	1,163	1,105	58		1,163	
5.0334	2015	Quarry Ridge Recreational Pathway	230	25%	58	-	172	155	147	8		155	
5.0344	2021	Findlay Creek Community Park Phase 2 (North Sports Field)	1,070	5%	54	-	1,016	914	868	46		914	
5.0354	2018	Findlay Creek North Neighbourhood Park (Barrett Lands)	1,190	5%	60	-	1,130	1,017	966	51		1,017	
5.0364	2017	Findlay Creek Stage 2, Phase 4 Neighbourhood Park + Rooftruss lands (1.21ha)	570	0%	-	-	570	513	487	26		513	
5.0374	2015	Leitrim East Neighbourhood Park	810	0%	-	-	810	729	693	36		729	
5.0384	2019	Leitrim Expansion Lands 9A & B Community Park	1,600	5%	80	-	1,520	1,368	1,300	68		1,368	
5.0394	2020	Leitrim Expansion Lands 9A & B Parkette 1	200	0%	-	-	200	180	171	9		180	
5.0404	2020	Leitrim Expansion Lands 9A & B Parkette 2	200	0%	-	-	200	180	171	9		180	
5.0414	2021	Findlay Creek Reimer Lands Community Park	1,690	5%	85	-	1,605	1,445	1,373	72		1,445	
5.0424	2021	Findlay Creek Reimer Lands Neighbourhood Park 1	540	0%	-	-	540	486	462	24		486	
5.0434	2022	Findlay Creek Reimer Lands Neighbourhood Park 2	550	0%	-	-	550	495	470	25		495	
5.0444	2022	Leitrim Expansion Area 8a - Neighbourhood Park	770	0%	-	-	770	693	658	35		693	
5.0454	2015	Summerhill Neighbourhood Park (RS Phase 9) Claridge-Sala/Urban	1,000	5%	50	-	950	855	812	43		855	
5.0464	2018	Riverside South Phase 9 Parkette Urbandale	200	0%	-	-	200	180	171	9		180	
5.0474	2016	Riverside South Phase 13 - Neighborhood Park Urbandale	830	0%	-	-	830	747	710	37		747	
5.0484	2018	Riverside South Phase 13 - Parkette Urbandale	300	0%	-	-	300	270	257	14		270	

City of Ottawa

Area-Specific Development Charge Projects
Service Component - Parks Development (Non-District Parks)

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less			Growth Cost \$000	90% Statutory Portion \$000	95% Residential Share \$000	5% Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000					Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
5.0494	2020	Riverside South Phase 7 - Parkette	230	0%	-	-	230	207	197	10		207	
5.0504	2021	Riverside South Phase 6 Urban Parkette	240	0%	-	-	240	216	205	11		216	
5.0514	2016	Riverside South Phase 6 Tot Lot Parkette	210	0%	-	-	210	189	180	9		189	
5.0524	2015	Boothfield Neighbourhood Park (RS Phase 5) Urbandale	1,000	5%	50	-	950	855	812	43		855	
5.0534	2018	Riverside South Phase 5 - Parkette Urbandale	390	0%	-	-	390	351	333	18		351	
5.0564	2022	Riverside South Community Park 1	1,340	5%	67	-	1,273	1,146	1,089	57		1,146	
5.0574	2023	Riverside South Community Park 2	150	0%	-	-	150	135	128	7		135	
5.0584	2023	Riverside South Neighbourhood Park 1	500	0%	-	-	500	450	428	23		450	
5.0594	2016	Shadow Ridge Phase 3 Parkette 2	520	0%	-	-	520	468	445	23			468
5.0604	2015	Emerald Links Phase 1-3 Parkette	520	0%	-	-	520	468	445	23			468
5.0614	2017	Quinn Farm Community Park; Cadieux Land & Quinn Farm Subdivi	1,280	10%	128	-	1,152	1,037	985	52			1,037
5.0624	2016	Greely Village Centre Park & Water's Edge Subdivision Community Park	630	0%	-	-	630	567	539	28			567
5.0634	2019	Buckles St. Neighbourhood Park	990	0%	-	-	990	891	846	45			891
5.0644	2017	Cedar Lakes Neighbourhood Park (1566 Stagecoach Road - Ripley L	480	0%	-	-	480	432	410	22			432
5.0654	2020	Rideau Forest Neighbourhood Park Phase 7-11	910	0%	-	-	910	819	778	41			819
5.0664	2021	1934 Stagecoach Road Neighbourhood Park	1,290	0%	-	-	1,290	1,161	1,103	58			1,161
5.0674	2015	South Nepean Town Centre Parkette #1	190	0%	-	-	190	171	162	9			171
5.0684	2016	South Nepean Town Centre Parkette #2	260	0%	-	-	260	234	222	12			234
5.0694	2018	South Nepean Town Centre Park No. 1	440	0%	-	-	440	396	376	20			396
5.0704	2017	South Nepean Town Centre Park No. 2	270	0%	-	-	270	243	231	12			243
5.0714	2018	South Nepean Town Centre Park No. 3	440	0%	-	-	440	396	376	20			396
5.0724	2019	South Nepean Town Centre Park No. 4	450	0%	-	-	450	405	385	20			405
5.0734	2016	Orchard Park	420	0%	-	-	420	378	359	19			378
5.0744	2019	Onessa Springs Park	450	0%	-	-	450	405	385	20			405
5.0754	2018	Strandherd Meadows/Cobble Hill Park	560	0%	-	-	560	504	479	25			504
5.0764	2015	Longfields Parkette	260	0%	-	-	260	234	222	12			234
5.0774	2018	Longfields Parkette	120	0%	-	-	120	108	103	5			108
5.0784	2015	Freshwater Parkette Half Moon Bay	110	0%	-	-	110	99	94	5			99
5.0794	2015	Regatta Parkette Half Moon Bay South	410	0%	-	-	410	369	351	18			369
5.0804	2019	Half Moon Bay River Park North & South	1,060	5%	53	-	1,007	906	861	45			906
5.0814	2017	Half Moon Bay South The Meadows	910	0%	-	-	910	819	778	41			819
5.0824	2018	Half Moon Bay South Neighbourhood Park	1,750	5%	88	-	1,662	1,496	1,421	75			1,496
5.0834	2016	Half Moon Bay South Donald Dr. Parkette	300	0%	-	-	300	270	257	14			270
5.0844	2015	Half Moon Bay South Forest Park	470	0%	-	-	470	423	402	21			423
5.0854	2021	Half Moon Bay South Minto Park 1	540	0%	-	-	540	486	462	24			486
5.0864	2020	Half Moon Bay West Park 1	460	0%	-	-	460	414	393	21			414
5.0874	2021	Half Moon Bay West Park 2	480	0%	-	-	480	432	410	22			432
5.0884	2020	Half Moon Bay West	460	0%	-	-	460	414	393	21			414
5.0894	2016	Mahogany Entry Park Major	420	0%	-	-	420	378	359	19			378
5.0904	2016	Mahogany Spring Pond	110	0%	-	-	110	99	94	5			99
5.0914	2020	Mahogany Community Park	1,080	5%	54	-	1,026	923	877	46			923
5.0924	2017	Kings Grant Parkette	160	0%	-	-	160	144	137	7			144
5.0934	2018	Caivan Richmond	440	0%	-	-	440	396	376	20			396
5.0944	2020	Richmond Mattamy Park 1	460	0%	-	-	460	414	393	21			414
5.0954	2020	Richmond Mattamy Park 2	350	0%	-	-	350	315	299	16			315
5.0964	2022	Manotick South Development	500	0%	-	-	500	450	428	23			450
5.0974	2022	Manotick Motel Site Redevelopment	500	0%	-	-	500	450	428	23			450
5.0994	2021	Place des Gouverneurs Park	300	5%	15	-	285	257	244	13	257		
5.1004	2016	Ogilvie Cummings Parkette	260	5%	13	-	247	222	211	11	222		

City of Ottawa
Area-Specific Development Charge Projects
Service Component - Parks Development (Non-District Parks)

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less			Growth Cost \$000	90% Statutory Portion \$000	95% Residential Share \$000	5% Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000					Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
5.1014	2023	Lebreton	2,730	10%	273	-	2,457	2,211	2,100	111	2,211		
5.1024	2021	Train Lands TOD	480	5%	24	-	456	410	390	21	410		
5.1034	2021	Bayswater / Lebreton Street Park	480	5%	24	-	456	410	390	21	410		
5.1044	2023	Carp Airport Community Park	1,870	5%	94	-	1,776	1,598	1,518	80			1,598
5.1054	2019	Carp Airport Parkette	250	0%	-	-	250	225	214	11			225
5.1064	2016	Kanata North Area 1 - Community Park 1	1,640	5%	82	-	1,558	1,402	1,332	70		1,402	
5.1074	2017	Kanata North Area 1 - Community Park 2	1,680	5%	84	-	1,596	1,436	1,364	72		1,436	
5.1084	2018	Kanata North Area 1 - Neighbourhood Park 1	820	0%	-	-	820	738	701	37		738	
5.1094	2019	Kanata North Area 1 - Neighbourhood Park 2	840	0%	-	-	840	756	718	38		756	
5.1104	2020	Kanata North Area 1 - Parkette	860	0%	-	-	860	774	735	39		774	
5.1114	2018	Kanata Town Centre - Urban Parkette	110	0%	-	-	110	99	94	5		99	
5.1124	2015	Kanata North - Kizell Pond Trail	110	25%	28	-	82	74	70	4		74	
5.1134	2015	Richardson Ridge (Sloped Park)	400	0%	-	-	400	360	342	18			360
5.1144	2017	Richardson Ridge (Flat Park)	570	0%	-	-	570	513	487	26			513
5.1154	2019	Kanata North Phase 1	530	0%	-	-	530	477	453	24		477	
5.1164	2017	Kanata North Phase 2	290	0%	-	-	290	261	248	13		261	
5.1174	2018	Kanata North Phase 3	290	0%	-	-	290	261	248	13		261	
5.1184	2022	Kanata North Phase 4	340	0%	-	-	340	306	291	15		306	
5.1194	2023	Richcraft Kanata Highlands	940	0%	-	-	940	846	804	42		846	
5.1204	2015	Fairwinds North Phase 3 Park	120	0%	-	-	120	108	103	5		108	
5.1214	2016	Fairwinds West - Tartan & Mattamy	450	0%	-	-	450	405	385	20		405	
5.1224	2015	Arcadia Phase 1 - Minto	370	0%	-	-	370	333	316	17		333	
5.1234	2016	Kanata West - Richcraft Phase 1	420	0%	-	-	420	378	359	19		378	
5.1244	2019	Kanata West - Richcraft Phase 2	350	0%	-	-	350	315	299	16		315	
5.1254	2017	Fernbank Neighbourhood Park - 2 Regional Fernbank Crossing	540	0%	-	-	540	486	462	24		486	
5.1264	2016	Blackstone Park	910	0%	-	-	910	819	778	41		819	
5.1274	2016	Fernbank Neighbourhood Park - 5 CRT	440	0%	-	-	440	396	376	20		396	
5.1284	2022	Fernbank Community Park - 2 CRT	1,780	5%	89	-	1,691	1,522	1,446	76		1,522	
5.1294	2019	Fernbank Neighbourhood Park - 3 Monarch/Cardel	470	0%	-	-	470	423	402	21		423	
5.1304	2019	Fernbank Neighbourhood Park - 4 Monarch/Cardel	570	0%	-	-	570	513	487	26		513	
5.1314	2019	Fernbank Neighbourhood Park - 6 CRT	730	0%	-	-	730	657	624	33		657	
5.1324	2021	Fernbank Neighbourhood Park - 7 CRT	140	0%	-	-	140	126	120	6		126	
5.1334	2020	Fernbank Neighbourhood Park - 8 CRT	490	0%	-	-	490	441	419	22		441	
5.1344	2020	Fernbank Neighbourhood Park - 9 Cavanagh	600	0%	-	-	600	540	513	27		540	
5.1354	2016	Fernbank Neighbourhood Park - 10A-Tartan	380	0%	-	-	380	342	325	17		342	
5.1364	2016	Fernbank Neighbourhood Park -10B Tartan Path	590	0%	-	-	590	531	504	27		531	
5.1374	2020	Fernbank Neighbourhood Park - 1 Del Brookfield	470	0%	-	-	470	423	402	21		423	
5.1384	2020	Fernbank Neighbourhood Park - 2 Richcraft	460	0%	-	-	460	414	393	21		414	
5.1394	2021	Fernbank Neighbourhood Park - 3 Del Brookfield	440	0%	-	-	440	396	376	20		396	
5.1404	2017	Fernbank Neighbourhood Park - 5 Mattamy	430	0%	-	-	430	387	368	19		387	
5.1414	2022	Fernbank Neighbourhood Park - 6 Metric	550	0%	-	-	550	495	470	25		495	
5.1424	2023	Fernbank Community Park - 1 Richcraft	2,110	5%	106	-	2,004	1,804	1,714	90		1,804	
5.1444	2015	Sawyer's Meadow Park Expansion (Bridlewood Trails Phase 6)	300	0%	-	-	300	270	257	14		270	
5.1454	2017	Monahan Landing Woodlot Park	320	0%	-	-	320	288	274	14			288
5.1464	2018	Chapman Mills - Main Street Neighbourhood Park	20	0%	-	-	20	18	17	1		18	
5.1474	2018	Forest Neighbourhood Park Chapman Mills	813	0%	-	-	813	732	695	37		732	
5.1484	2018	West Point Village Park/Lucknow	57	0%	-	-	57	51	48	3			51

City of Ottawa
 Area-Specific Development Charge Projects
 Service Component - Parks Development (Non-District Parks)

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less			Growth Cost \$000	90% Statutory Portion \$000	95% Residential Share \$000	5% Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000					Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
5.1494	2018	Fraser Fields Parkette	20	0%	-	-	20	18	17	1			18
5.1504	2018	Fraser Fields Linear Park	84	0%	-	-	84	76	72	4			76
5.1514	2018	Forest Park Tartan	411	0%	-	-	411	370	352	19			370
5.1524	2018	Colonnade Parkette 2 Phase 2	280	5%	14	-	266	239	227	12	239		
21.0004	2018	Urban Parks Manual	170	15%	26	-	144	130	124	7	6	100	24
5.1544	2018	Green Meadows (Rivington)	497	0%	-	-	497	447	425	22			447
5.1554	2022	Carp Airport Community Park	2,257	5%	113	-	2,144	1,930	1,834	97			1,930
5.1564	2023	Carp Airport Parkette	199	0%	-	-	199	179	170	9			179
5.1574	2020	Blackstone Park (Fernbank CPs-1) Monarch/Cardel Phase 2	1,463	5%	73	-	1,390	1,251	1,188	63		1,251	
5.1584	2018	Meadow Breeze Park Expansion	587	0%	-	-	587	528	502	26			528
5.1594	2018	Monahan Landing Park	497	0%	-	-	497	447	425	22			447
Total			95,365		2,352	-	93,013	83,711	79,527	4,195	3,755	63,252	16,704

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City of Ottawa
Area-Specific Development Charge Projects
Service Component - Parks Development (District Parks - Outside Greenbelt, excluding Millennium Park Area)

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less			Growth Cost \$000	90% Statutory Portion \$000	95% Residential Share \$000	5% Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000					Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
5.0274	2022	EUC District Park	1,450	10%	145	-	1,305	1,175	1,116	59		1,175	
5.0544	2023	Riverside South North District Park (Employment Lands)	1,380	10%	138	-	1,242	1,118	1,062	56		1,118	
5.0554	2023	Riverside South District Park	1,380	10%	138	-	1,242	1,118	1,062	56		1,118	
5.1434	2022	Fernbank District Park - Richcraft	2,300	10%	230	-	2,070	1,863	1,770	93		1,863	
Total			6,510		651	-	5,859	5,274	5,010	264	0	5,274	0

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City of Ottawa
 Area-Specific Development Charge Projects
 Service Component - Parks Development (District Parks - Outside Greenbelt, Millennium Park Area)

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less				Growth Cost \$000	90% Statutory Portion \$000	95% Residential Share \$000	5% Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000	Post Period Capacity \$000					Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
	2015-2024	Millennium Park	6,667	0%	-	-	3,837	2,830	2,547	2,420	127		2,547	
		Total	6,667		-	-	3,837	2,830	2,547	2,420	127	0	2,547	0

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B-9 MAJOR INDOOR RECREATION FACILITIES

B-9 MAJOR INDOOR RECREATION FACILITIES

B-9.1 DC Calculation Planning Period

2015-2024

B-9.2 Service Coverage and Capital Program

Coverage: community centres, indoor and outdoor pools, ice pads, major recreation complexes, skateboard parks, indoor sports field facilities, etc.

Capital Program: prepared by the Recreation and Community Services Branch of the City Operations Department, based on historical 10-year average service levels and anticipated population growth and in accordance with the Community Infrastructure Strategy. The capital program reflects projects identified in City of Ottawa capital budgets and/or the City's Long Range Financial Plan. Certain capital projects were identified as part of the DC Background Study. The capital program was established in recognition of projected cash flow and affordability and identifies debt payment requirements carried forward from previous years.

B-9.3 Local Service and Developer Contribution Policy

Not applicable.

B-9.4 Level of Service Measurement

A separate schedule follows for indoor recreation facilities (sq.ft./capita). The 2014 values for Recreation Complex, Community Centre and Indoor Pool are based on the average project costs for actual built facilities over the last 6 years. The values do not include land costs, however they do include all other project costs (i.e. soft and hard costs).

B-9.5 Benefit to Existing Development Deduction

No deduction for benefit to existing development was made for future debt payments which fund DC recoverable costs which were previously identified.

A minimum 5% deduction has been made for Community Centre space as an allowance for improved access associated with new facilities, with 10% deducted for the Riverside South Recreation Complex and outdoor aquatic facilities. A higher percentage (45%) was utilized in

several instances for the outdoor skateboard park and Community Buildings in the rural area, as well as Community Centre Upgrades IGB which are intended to provide additional service capacity to existing residents. In the case of unique facilities in largely built-out areas which are also required to address existing needs, a 70-80% deduction has been made.

B-9.6 Post Period/Excess Capacity Deduction

The 2013 service level for Major Indoor Recreation Facilities is marginally above the City's historical 10-year average and this has been addressed via large benefit to existing development deductions. The 2024 DC-funded service level for Major Indoor Recreation Facilities is below the City's historical 10-year average. As a result, no post period capacity is involved.

B-9.7 Provision for Grants, Subsidies and Other Contributions

Not applicable to the gross project costs included.

B-9.8 10% Statutory Deduction

A 10% deduction has been made from the DC recoverable costs pursuant to s.s.5(1)8 of the DCA.

B-9.9 Use of Uncommitted DC Reserve Fund Balance

To be used for the 2009-2013 DC recoverable costs of future DC projects.

B-9.10 Residential vs. Non-Residential Split

95% residential and 5% non-residential, based on estimated service usage and accepted municipal norms.

B-9.11 Area-Specific Cost Allocation

Residential Charge

Project costs were allocated on a Large Area basis, based on the project location except in the case of Outdoor Aquatic Facilities, contributions to the Indoor Skateboard Park Partnership and studies which have a broader City-wide service area and are addressed accordingly.

Non-residential Charge

The calculation was made on a uniform, City-wide basis in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

**City of Ottawa
Development Charge Background Study
Historic Level of Service**

Service: Recreation Services
Type of Capital Asset: Square Feet of Building Space

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/s.f.)	Total Value
Recreation Complex	1,590,723	1,625,723	1,660,168	1,660,168	1,681,168	1,681,168	1,681,168	1,696,238	1,696,238	1,819,220	\$446	\$7,489,223,972
Community Centre	804,843	847,427	853,102	863,102	872,318	882,000	898,250	914,400	922,220	922,220	\$455	\$3,994,846,310
Community Building	50,636	50,636	52,863	52,863	52,863	52,863	52,863	52,863	52,863	55,875	\$460	\$242,506,480
Fieldhouse	179,583	179,583	179,583	179,583	180,683	180,683	180,683	183,912	183,912	183,912	\$394	\$713,974,098
Indoor Pool	502,680	502,680	502,680	502,680	502,680	502,680	506,575	506,575	506,575	506,575	\$446	\$2,248,901,480
Indoor Ice Pad	21,000	21,000	21,000	55,000	55,000	56,725	56,725	56,725	56,725	56,725	\$365	\$166,668,125
Indoor Soccer	64,200	64,200	64,200	142,200	142,200	142,200	142,200	142,200	142,200	142,200	\$90	\$106,920,000
Outdoor District Skateboard Park	30,140	30,140	39,720	39,720	39,720	39,720	39,720	39,720	39,720	51,850	\$30	\$11,705,100
Outdoor Pool	9,325	9,325	9,325	9,325	9,325	10,835	10,835	10,835	10,835	10,835	\$171	\$17,236,800
Stadium	440,420	440,420	440,420	440,420	440,420	440,420	440,420	440,420	440,420	440,420	\$479	\$2,109,611,800
Sportsfield (Lansdowne)	72,647	72,647	72,647	72,647	72,647	72,647	72,647	72,647	72,647	72,647	\$48	\$34,870,560
Total	3,766,197	3,843,781	3,895,708	4,017,708	4,049,024	4,061,941	4,082,086	4,116,535	4,124,355	4,262,479		\$17,136,464,725
Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		40,219,814
Per Capita Service Level	4.4525	4.4711	4.4739	4.5592	4.5258	4.5171	4.4760	4.4646	4.4266	4.5226		\$426.07

10 Year Average	2004-2013
Quantity Standard	4.4889
Quality Standard	\$426.07
Combined Quantity/Quality Level (\$/1000 Persons)	\$1,912.59

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$1,912.59
Eligible DC \$ Amount	\$220,282,159

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**City of Ottawa
Area-Specific Development Charge Projects
Service Component - Recreation Facilities**

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Less			Growth Cost \$000	90% Statutory Portion \$000	95% Residential Share \$000	5% Non-residential Share \$000	Allocation of Expenditures by Area		
				Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000					Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
6.0394	2016	Riverside South Recreation Complex Land	4,500	10%	450	-	4,050	3,645	3,463	182		3,645	
6.0494	2018	Riverside South Recreation Complex Construction	59,535	10%	5,954	-	53,581	48,223	45,812	2,411		48,223	
6.1944	2017	Outdoor District Skateboard Park East	750	45%	338	-	412	371	352	19		371	
6.1244	2020	Pinecrest Community Centre Expansion (12,000 SF)	6,970	70%	4,879	-	2,091	1,882	1,788	94	1,882		
6.0794	2015	Community Centre - East (21,000 SF)	9,550	5%	478	-	9,072	8,165	7,757	408		8,165	
6.0894	2017	Community Centre - South (21,000 SF)	9,550	5%	478	-	9,072	8,165	7,757	408		8,165	
6.0994	2019	Community Centre - West (21,000 SF)	9,550	5%	478	-	9,072	8,165	7,757	408		8,165	
6.1394	2017	Community Building - Rural East (3,000 SF)	1,616	45%	727	-	889	800	760	40			800
6.1294	2019	Community Building - Rural South (3,000 SF)	1,616	45%	727	-	889	800	760	40			800
6.1194	2021	Community Building - Rural West (3,000 SF)	1,616	45%	727	-	889	800	760	40			800
6.0144	2015-2024	Community Centre Space Upgrades	20,000	45%	9,000	-	11,000	9,900	9,405	495	9,900		
		Debt Payments											
6.0544	2015-2024	Albion Heatherington Community Centre-Debt Payments	65	0%	-	-	65	65	62	3	65		
6.0944	2015-2024	Hunt Club/Riverside Expansion - Debt Payments	182	0%	-	-	182	182	173	9	182		
6.0444	2015-2024	Indoor Pools - Growth (OSGB) - Debt Payments	6,013	0%	-	-	6,013	6,013	5,712	301		6,013	
6.0294	2015-2024	Goulbourn Recreation Complex Icepad Twinning-Debt Pay	215	0%	-	-	215	215	204	11		215	
6.1344	2015-2024	Barrhaven South Recreation Complex - Debt Payments	4,520	0%	-	-	4,520	4,520	4,294	226		4,520	
6.1444	2015-2024	South East Nepean Complex Land - Debt Payments	1,430	0%	-	-	1,430	1,430	1,359	72		1,430	
6.1044	2015-2024	North Kanata Recreation Complex - Debt Payments	5,704	0%	-	-	5,704	5,704	5,419	285		5,704	
6.1494	2015-2024	Goulbourn Recreation Centre - Debt Payments	1,011	0%	-	-	1,011	1,011	960	51		1,011	
6.1594	2015-2024	Fred Barrett Arena - Debt Payments	1,920	0%	-	-	1,920	1,920	1,824	96		1,920	
6.0444	2015-2024	Indoor Pools - Debt Payments	1,250	0%	-	-	1,250	1,250	1,188	63		1,250	
6.0344	2015-2024	Ray Friel Centre - Debt Payments	7,090	0%	-	-	7,090	7,090	6,736	355		7,090	
		Total	154,653		24,236	0	130,417	120,316	114,302	6,017	12,029	105,887	2,400

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B-10 LIBRARIES

B-10 LIBRARIES

B-10.1 DC Calculation Planning Period

2015-2024

B-10.2 Service Coverage and Capital Program

Coverage: new or expanded branch libraries, main library or ancillary facilities; all forms of circulating materials including books, periodicals, CDs, electronically-available information, etc.

Capital Program: prepared by Ottawa Public Library and approved by the Ottawa Public Library Board. The program is based on the 2014 Library Board Reports, Library Facilities Investment and Growth Planning Study, December 2011, population projections and ten-year average service levels. Capital projects have been or will be included in City of Ottawa capital budgets and/or the City's Long Range Financial Plan.

B-10.3 Local Service and Developer Contribution Policy

Not applicable.

B-10.4 Level of Service Measurement

Separate schedules follow for Library Facilities (sq.ft./capita) and Collection Materials (items/capita).

B-10.5 Benefit to Existing Development Deduction

No deduction for benefit to existing development was involved for future debt charges pertaining to previously allocated DC recoverable costs. A 5% deduction is applicable to additional collection materials and library planning studies.

A 10% deduction is applicable to library expansions and facilities to accommodate growth Outside the Greenbelt and Rural areas and 40% for an expansion to Central Library Facilities Inside the Greenbelt.

B-10.6 Post Period/Excess Capacity Deduction

The 2013 service level for Libraries is below the City's historical 10-year average. As a result, no excess capacity is involved. The 2024 DC-funded service level for Libraries is also at or below the City's historical 10-year average. As a result, no post period capacity is involved.

B-10.7 Provision for Grants, Subsidies and Other Contributions

Not applicable.

B-10.8 10% Statutory Deduction

A 10% deduction has been made from the DC recoverable costs pursuant to s.s.5(1)8 of the DCA.

B-10.9 Use of Uncommitted DC Reserve Fund Balance

To be used for the 2009-2013 DC recoverable costs of future DC projects.

B-10.10 Residential vs. Non-Residential Split

95% residential and 5% non-residential, based on estimated service usage and accepted municipal norms.

B-10.11 Area-Specific Cost Allocation

Residential Charge

Facility costs are allocated on a Large Area service area basis. Collections are assessed on a City-wide basis as with the present library system, collections can be used by residents from all parts of the City via inter-library loans.

Non-residential Charge

The calculation was made on a uniform, City-wide basis in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

City of Ottawa
Development Charge Background Study
Historic Level of Service

Service: Libraries
Type of Capital Asset: Square Feet of Building Space

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/s.f.)	Total Value
Alta Vista	15,198	15,198	15,198	15,198	15,198	15,198	15,198	15,198	15,198	15,198	\$379	\$57,600,420
Beaverbrook	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	\$379	\$37,900,000
Blackburn Hamlet	7,333	7,333	7,333	7,333	7,333	7,333	7,333	7,333	7,333	7,333	\$379	\$27,792,070
Blossom Park	10,250	10,250	0	0	0	0	0	0	0	0	\$379	\$7,769,500
Carlingwood	19,690	19,690	19,690	19,690	19,690	19,690	19,690	19,690	19,690	19,690	\$379	\$74,625,100
Carp	5,773	5,773	5,773	5,773	5,773	5,773	5,773	5,773	5,773	5,773	\$379	\$21,879,670
Centennial	9,744	9,744	9,744	9,744	9,744	9,744	9,744	9,744	9,744	9,744	\$379	\$36,929,760
Constance Bay	519	519	519	519	519	519	519	519	519	519	\$379	\$1,967,010
Cumberland	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	24,500	\$379	\$92,855,000
Cumberland - Sir Wilfrid Laurier Storage	3,000	3,000	3,000	3,000	3,000	3,000	3,000	0	0	0	\$379	\$7,959,000
Elmvale Acres	7,493	7,493	7,493	7,493	7,493	7,493	7,493	7,493	7,493	7,493	\$379	\$28,398,470
Emerald Plaza	5,644	5,644	5,644	5,644	5,644	5,644	5,644	5,644	5,644	10,528	\$379	\$23,241,796
Fitzroy Harbour	673	673	673	673	673	673	673	673	673	673	\$379	\$2,550,670
Greely	946	946	946	946	946	946	946	3,000	3,000	3,000	\$379	\$5,920,738
Greenboro	0	0	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	\$379	\$87,928,000
Hazeldean	9,713	9,713	9,713	9,713	9,713	9,713	9,713	9,713	9,713	9,713	\$379	\$36,812,270
Main 5th Floor (4th Fl Gen Admin omitted)	13,884	13,884	13,884	13,884	13,884	13,884	13,884	13,884	13,884	13,884	\$379	\$52,620,360
Main Branch	90,418	90,418	90,418	90,418	90,418	90,418	90,418	90,418	90,418	90,418	\$379	\$342,684,220
Manotick	4,629	4,629	4,629	4,629	4,629	4,629	4,629	4,629	4,629	4,629	\$379	\$17,543,910
Metcalfe	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	\$379	\$5,563,720
Munster	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	\$379	\$3,790,000
Nepean Centrepointe	36,940	36,940	36,940	36,940	36,940	36,940	36,940	36,940	36,940	36,940	\$379	\$140,002,600
Nepean Centrepointe - BFP Offices 2nd Floor	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	\$379	\$9,475,000
North Gloucester	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300	14,300	\$379	\$54,197,000
North Gower	2,364	2,364	2,364	2,364	2,364	2,364	2,364	2,364	2,364	2,364	\$379	\$8,959,560
Orléans	17,182	17,182	17,182	17,182	17,182	17,182	17,182	17,182	17,182	17,182	\$379	\$65,119,780
Osgoode	3,412	3,412	3,412	3,412	3,412	3,412	3,412	3,412	3,412	3,412	\$379	\$12,931,480
Richmond	2,804	2,804	2,804	2,804	2,804	2,804	2,804	2,804	2,804	2,804	\$379	\$10,627,160
Rideau	7,277	7,277	7,277	7,277	7,277	7,277	7,277	7,277	7,277	7,277	\$379	\$27,579,830
Rockcliffe Park	3,005	3,005	3,005	3,005	3,005	3,005	3,005	3,005	3,005	3,005	\$379	\$11,388,950
Rosemount	6,089	6,089	6,089	6,089	6,089	6,089	6,089	6,089	6,089	6,089	\$379	\$23,077,310
Ruth E. Dickinson	17,100	17,100	17,100	17,100	17,100	17,100	17,100	19,000	19,000	19,000	\$379	\$66,969,300
Ruth E. Dickinson - Tech Service Storage	2,700	2,700	2,700	2,700	2,700	2,700	2,700	0	0	0	\$379	\$7,163,100
Stittsville	12,700	12,700	12,700	12,700	12,700	12,700	12,700	12,700	12,700	12,700	\$379	\$48,133,000
St-Laurent	13,540	13,540	13,540	13,540	13,540	13,540	13,540	13,540	13,540	13,540	\$379	\$51,316,600
Sunnyside	12,014	12,014	12,014	12,014	12,014	12,014	12,014	12,014	12,014	12,014	\$379	\$45,533,060
Vanier	7,308	7,308	7,308	7,308	7,308	7,308	7,308	7,308	7,308	7,308	\$379	\$27,697,320
Vernon	1,366	1,366	1,366	1,366	1,366	1,366	1,366	1,366	1,366	1,366	\$379	\$5,177,140
Total	404,476	404,476	423,226	423,226	423,226	423,226	423,226	423,226	421,480	421,480	426,364	\$1,589,679,874

Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		4,194,406
Per Capita Service Level	0.4782	0.4705	0.4860	0.4803	0.4731	0.4707	0.4641	0.4571	0.4524	0.4524		\$379

10 Year Average	2004-2013
Quantity Standard	0.4685
Quality Standard	\$379.00
Combined Quantity/Quality Level (\$/1000 Persons)	\$177.56

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$177.56
Eligible DC \$ Amount	\$20,450,646

City of Ottawa
 Development Charge Background Study
 Average Level of Service

Service: Libraries
 Type of Capital Asset: Collection Material

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/item)	Total Value
Collection Materials	2,446,776	2,344,168	2,404,076	2,317,302	2,259,938	2,245,266	2,387,235	2,355,859	2,331,407	2,322,094	\$50.81	\$1,189,718,091
Total	2,446,776	2,344,168	2,404,076	2,317,302	2,259,938	2,245,266	2,387,235	2,355,859	2,331,407	2,322,094		\$1,189,718,091

Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		23,414,121
Per Capita Standard per 1000 Persons	2.8926	2.7267	2.7609	2.6296	2.5260	2.4969	2.6176	2.5550	2.5022	2.4638		\$50.81

10 Year Average	2004-2013
Quantity Standard	2.6171
Quality Standard	\$50.81
Combined Quantity/Quality Level (\$/1000)	\$132.98

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$132.98
Eligible DC \$ Amount	\$15,315,978

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City of Ottawa
Area-Specific Development Charge Projects
Service Component - Library Services

Item	Summary of Timing by Year(s) 2015-2024	Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Eligible Level of Service \$000	Less			Growth Cost \$000	90% Statutory Portion \$000	95% Residential Share \$000	5% Non-residential Share \$000	Allocation of Expenditures by Area		
					Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000					Inside Greenbelt \$000	Outside Greenbelt \$000	Rural \$000
7.14494	2015	South Urban Library Expansion (15000 sq ft)	12,000	12,000	10%	1,200	-	10,800	9,720	9,234	486		7,096	2,624
7.00094	2019	Central Library Facility Services (10000 sq ft)	6,000	6,000	40%	2,400	-	3,600	3,240	3,078	162	3,240		
7.12494	2022	East Urban Community	3,000	3,000	10%	300	-	2,700	2,430	2,309	122		2,163	267
21.26444	2018	Library Planning Studies	100	100	5%	5	-	95	86	81	4	18	51	16
		Debt Payments												
7.11494	2016-2024	West District Library - Debt Payments	38	38	0%	-	-	38	38	36	2		25	13
		Total	21,138	21,138		3,905	0	17,233	15,514	14,738	776	3,258	9,335	2,920

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B-11 PARAMEDIC SERVICE

B-11 PARAMEDIC SERVICE

B-11.1 DC Calculation Planning Period

2015-2024

B-11.2 Service Coverage and Capital Program

Coverage: paramedic posts and emergency response vehicles.

Capital Program: prepared by Emergency and Protective Services (Paramedic Services), based on the Ottawa Paramedic Accommodations Master Plan. Most projects are included in recent City of Ottawa capital budgets and/or the City's Long Range Financial Plan. Otherwise, projects will be approved as part of the DC Background Study.

B-11.3 Local Service and Developer Contribution Policy

Not applicable.

B-11.4 Level of Service Measurement

Separate schedules follow for Paramedic Service Facilities (sq.ft./capita) and Vehicles (vehicles/capita).

B-11.5 Benefit to Existing Development Deduction

All of Ottawa receives ambulance service. The establishment of additional posts is necessary to house the additional vehicles and staff necessitated by growth. A small response time benefit to existing development (5-10%) is involved in some cases as a result of new stations and vehicles. This is, in part, because the ambulances are largely routed "on the move", rather than exclusively from the post.

B-11.6 Post Period/Excess Capacity Deduction

The 2013 service level for Paramedic Services is below the City's historical 10-year average. As a result, no excess capacity is involved. The 2024 DC-funded service level for the Paramedic Service is at the City's historical 10-year average. As a result, no post period capacity is involved.

B-11.7 Provision for Grants, Subsidies and Other Contributions

Not applicable.

B-11.8 10% Statutory Deduction

A 10% deduction has been made from the DC recoverable costs pursuant to s.s.5(1)8 of the DCA.

B-11.9 Use of Existing Reserve Funds

To be used for the 2009-2013 DC recoverable costs of future DC projects.

B-11.10 Residential vs. Non-Residential Split

The incremental population and employment ratio has been applied (i.e. 66% residential and 34% non-residential).

B-11.11 Area-Specific Cost Allocation

Residential Charge

All projects have been allocated on a City-wide basis because of the mobility of the fleet. As a result, the residential charge is based on a uniform, City-wide calculation.

Non-residential Charge

The calculation was made on a City-wide basis in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

City of Ottawa
 Development Charge Background Study
 Historic Level of Service

Service: Paramedic Services
 Type of Capital Asset: Square Feet of Building Space

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/s.f.)	Total Value
3207 Vance Road, Osgoode	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	\$340	\$9,520,000
738 Gladstone Avenue	3,479	3,479	3,479	3,479	3,479	3,479	3,479	3,479	3,479	3,479	\$340	\$11,828,600
911 Industrial Road	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	\$340	\$5,440,000
1439 Youville, Orleans (Closed 2007)	2,237	2,237	2,237	2,237	0	0	0	0	0	0	\$340	\$3,042,320
1073 Greenbank Road (Closed 2005)	2,400	2,400	0	0	0	0	0	0	0	0	\$340	\$1,632,000
631 Main Street, Stittsville	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	\$340	\$8,840,000
1655 Maplegrove Road (Closed 2007)	1,000	1,000	1,000	1,000	0	0	0	0	0	0	\$340	\$1,360,000
3045 Baseline Road (Closed 2004)	2,262	0	0	0	0	0	0	0	0	0	\$340	\$769,080
360 Hunt Club Road	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	\$340	\$8,160,000
3510 Kinburn Sideroad, Kinburn (Closed 2007)	1,200	1,200	1,200	1,200	0	0	0	0	0	0	\$340	\$1,632,000
75 Donald B Munro, Carp	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$340	\$4,080,000
6280 Perth Street, Richmond	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$340	\$4,080,000
5669 Main Street, Manotick	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$340	\$4,080,000
8011 Victoria Street, Metcalfe	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$340	\$4,080,000
1246 Colonial Road, Navan	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$340	\$4,080,000
530 Tremblay Road (exclude admin) - (Closed 2005)	47,000	0	0	0	0	0	0	0	0	0	\$340	\$15,980,000
2465 Don Reid Drive (exclude admin)	0	85,242	85,242	85,242	85,242	85,242	85,242	85,242	85,242	85,242	\$340	\$260,840,520
2445 Old Montreal Rd, Cumberland	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	\$340	\$5,100,000
5670 Carp Road, Kinburn	0	0	0	1,800	1,800	1,800	1,800	1,800	1,800	1,800	\$340	\$4,284,000
200 Montreal Road	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	\$340	\$6,222,000
384 St. Patrick Street	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	\$340	\$6,222,000
105 Catherine Street (Closed)	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	0	0	\$340	\$4,977,600
103 Catherine Street	0	0	0	0	0	0	0	1,830	1,830	1,830	\$340	\$1,866,600
2851 St. Joseph Blvd	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	\$340	\$6,222,000
50 Lord Byng Way	0	0	0	1,830	1,830	1,830	1,830	1,830	1,830	1,830	\$340	\$4,355,400
20 Bexley Place, Unit 106	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	\$340	\$7,310,000
1075 Greenbank Road	0	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	\$340	\$7,038,000
Total	85,948	124,228	121,828	125,458	121,021	121,021	121,021	122,851	121,021	121,021		\$403,042,120

Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		1,185,418
Per Capita Service Level	0.1016	0.1445	0.1399	0.1424	0.1353	0.1346	0.1327	0.1332	0.1299	0.1284		\$340

10 Year Average	2004-2013
Quantity Standard	0.1322
Quality Standard	\$340
Combined Quantity/Quality Level (\$/capita)	\$44.95

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$44.95
Eligible DC \$ Amount	\$5,176,886

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City of Ottawa
 Development Charge Background Study
 Historic Level of Service

Service: Paramedic Services
 Type of Capital Asset: Number of Vehicles

Quantity Measure	1	2	3	4	5	6	7	8	9	10	11	12
Description	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Value (\$/item)	Total Value
Emergency Response Vehicles (ERV) - Cars	17	20	23	23	26	27	27	27	27	22	\$98,000	\$23,422,000
Emergency Support Vehicles (ESU) - Pick-up Truck - F-450	1	1	1	1	1	1	1	1	1	2	\$70,000	\$770,000
Special Service Vehicles - All Terrain Vehicles	1	1	1	2	2	2	2	2	2	2	\$30,000	\$510,000
Special Support Vehicle (MCI trailers/shelters/CBRN):												
Enclosed Trailers	3	3	3	3	3	3	3	3	3	3	\$30,000	\$900,000
Flat Bed Trailer	0	0	0	1	1	1	1	2	2	2	\$30,000	\$300,000
Trailer with Generator	0	0	2	2	2	2	2	2	2	2	\$100,000	\$1,600,000
Treatment Rehabilitation Unit - Bus	0	0	1	1	1	1	1	1	1	1	\$1,200,000	\$9,600,000
Paramedic Units - Ambulance	51	57	62	61	69	76	76	76	76	76	\$190,000	\$129,200,000
Paramedic Support Vehicle (Logistics) Ford F-450 - Truck	0	0	0	0	0	0	0	0	1	1	\$400,000	\$800,000
Paramedic Response Vehicle (PTU) Interceptor - Tahoes	0	0	0	0	0	0	0	0	0	9	\$125,000	\$1,125,000
Total	73	82	93	94	105	113	113	114	115	120		\$168,227,000
Population	845,863	859,704	870,761	881,231	894,654	899,234	911,985	922,046	931,730	942,489		1,022
Per Capita Standard per 1000 Persons	0.0863	0.0954	0.1068	0.1067	0.1174	0.1257	0.1239	0.1236	0.1234	0.1273		\$164,606

10 Year Average	2004-2013
Quantity Standard	0.1136
Quality Standard	\$164,606
Combined Quantity/Quality Level (\$/1000 Persons)	\$18,699
Combined Quantity/Quality Level (\$/capita)	\$18.70

DC Amount (before deductions)	10-year
Forecast Population	115,175
\$ per Capita	\$18.70
Eligible DC \$ Amount	\$2,153,681

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City of Ottawa
City-Wide Development Charge Projects
Service Component - Paramedic Services

Increased Service Needs Attributable to Anticipated Development - 2015-2024 Project Description	Gross Capital Cost Estimate \$000	Eligible Level of Service \$000	Less			Growth Cost \$000	90% Statutory Portion \$000	66% Residential Share \$000	34% Non-residential Share \$000
			Benefit to Existing Development %	Benefit to Existing Development \$000	Grants, Subsidies & Contributions \$000				
Paramedic Post - Carling/Woodroffe	1,000	1,000	10%	100	0	900	810	535	275
Paramedic Post - Bank/Heron	1,000	1,000	10%	100	0	900	810	535	275
Paramedic Post - Fisher/Meadowlands	1,000	1,000	10%	100	0	900	810	535	275
Paramedic Post - Huntmar/Fernbank	1,000	1,000	10%	100	0	900	810	535	275
Paramedic Post - Trim/Tenth line	1,000	1,000	10%	100	0	900	810	535	275
Emergency Response Vehicles	2,300	2,300	5%	115	0	2,185	1,967	1,298	669
Total	7,300	7,300		615	0	6,685	6,017	3,973	2,044

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B-12 CORPORATE STUDIES

B-12 CORPORATE STUDIES

B-12.1 DC Calculation Planning Period

2015-2024

B-12.2 Service Coverage and Capital Program

Coverage: each individual service includes its own growth-related studies as a cost component. As a result, this service category only makes provision for “corporate” (Planning and Finance) studies such as OP, DC by-law, etc.

Capital Program: Unless already identified in the City of Ottawa capital budget, projects will be approved within the spending envelope indicated in the DC Background Study.

B-12.3 Level of Service Measurement

The study requirement is based on statutory requirements, the requirements of the City’s Official Plan and overall capital spending levels.

B-12.4 Benefit to Existing Development Deduction

The percentage varies from nil, in the case of Development Charge Background Studies, to 10% for planning studies for new development areas (e.g. community infrastructure plans, greenfield studies and servicing studies) to 50% for broader planning and policy studies, including redevelopment studies and infrastructure masterplans that benefit both existing and new development.

B-12.5 Post Period/Excess Capacity Deduction

Not applicable.

B-12.6 Provision for Grants, Subsidies and Other Contributions

Any subsidies that may be received have been netted from the costs for which DC funding is sought.

B-12.7 10% Statutory Deduction

The deduction is nil in the case of the DC Background Studies and those pertaining to roads, water, sanitary, storm, fire and police capital requirements which applies to the studies involved.

B-12.8 Use of Existing Reserve Funds

The December 31, 2013 uncommitted DC reserve fund balance, with adjustment for DC revenue foregone over the existing bylaw term due to exemptions, reductions and phase-in policies, has been netted in making the DC calculation for these studies.

B-12.9 Residential vs. Non-Residential Split

The population/employment ratio (2014-2024) has been used.

B-12.10 Area-Specific Cost Allocation

Residential Charge

The costs have been assigned on a Large Area basis where the benefiting area is clearly restricted in geographic coverage; otherwise they have been allocated on a City-wide basis.

Non-residential Charge

The calculation was made on a City-wide basis in order to reflect current policy, industry input and the objective of encouraging employment growth to the fullest extent possible and throughout the City.

B-13 PROVENCE AVENUE – AREA SPECIFIC DC

B-13 PROVENCE AVENUE – AREA SPECIFIC DC

B-13.1 DC Calculation Planning Period

2015-2031

B-13.2 Service Coverage and Capital Program

Coverage: Roads and related services, including sanitary sewer extension, engineering and contingencies.

Capital Program: Capital costs identified in September 6, 2013 report to Planning Committee (ACS2013-PAI-PGM-0191). Capital costs include roads and related costs to extend Provence Avenue 450 metres (\$1,100,000) and associated sanitary sewer extension (\$500,000).

B-13.3 Level of Service Measurement

Addressed in B-1.4 and B-2.4.

B-13.4 Benefit to Existing Development Deduction

No benefit to existing deduction has been provided as project is to the benefit of future development in the defined area.

B-13.5 Post Period/Excess Capacity Deduction

Not applicable.

B-13.6 Provision for Grants, Subsidies and Other Contributions

Not applicable.

B-13.7 10% Statutory Deduction

Not applicable.

B-13.8 Use of Existing Reserve Funds

As of December 31, 2013 no DC reserve funds have been collected for this area-specific charge.

B-13.9 Residential vs. Non-Residential Split

The defined benefiting area is anticipated to grow by 748 residential dwelling units (i.e. 336 single detached, 300 townhouse and 112 apartments). The anticipated development will produce additional population of approximately 2,091 persons. As such the net growth related capital costs have been allocated 100% to residential development within the area.

B-13.10 Area-Specific Cost Allocation

Residential Charge

The costs have been assigned to the Provence Avenue benefiting area for direct recovery from the future development of these lands.

B-14 FLAG STATION ROAD – AREA SPECIFIC DC

B-14 FLAG STATION ROAD – AREA SPECIFIC DC

B-14.1 DC Calculation Planning Period

2015-2031

B-14.2 Service Coverage and Capital Program

Coverage: Roads and related services, including contingencies.

Capital Program: Capital costs identified in June 26, 2013 report to Planning Committee (ACS2013-PAI-PGM-0117). Capital costs include roads and related costs to extend Flag Station Road 200 metres (\$90,000).

B-14.3 Level of Service Measurement

Addressed in B-1.4.

B-14.4 Benefit to Existing Development Deduction

No benefit to existing deduction has been provided as project is to the benefit of future development in the defined area.

B-14.5 Post Period/Excess Capacity Deduction

Not applicable.

B-14.6 Provision for Grants, Subsidies and Other Contributions

Not applicable.

B-14.7 10% Statutory Deduction

Not applicable.

B-14.8 Use of Existing Reserve Funds

As of December 31, 2013 no DC reserve funds have been collected for this area-specific charge.

B-14.9 Residential vs. Non-Residential Split

The defined benefiting area is anticipated to grow by 18 residential single detached dwelling units. The anticipated development will produce additional population of approximately 62 persons. As such the net growth related capital costs have been allocated 100% to residential development within the area.

B-14.10 Area-Specific Cost Allocation

Residential Charge

The costs have been assigned to the Flag Station Road benefiting area for direct recovery from the future development of these lands.

APPENDIX C
DEVELOPMENT CHARGE CALCULATION

APPENDIX C - DEVELOPMENT CHARGE CALCULATION

The following tables set out the DC calculations based on the standard average cost method. The residential charge is calculated on a per capita basis, dividing the residential net growth related costs by the gross population growth for the respective forecast period. The per capita charge is multiplied by the average occupancy per dwelling unit type to calculate the charge per unit for imposition in the DC by-law. For the non-residential charge calculation, the charge has been differentiated by non-residential type for industrial and non-industrial uses. The non-residential net growth related capital costs are allocated between industrial and non-industrial uses using the same allocation mechanism for differentiating residential and non-residential development (i.e. employment, design flows). The respective industrial and non-industrial net growth related costs are subsequently divided by the anticipated gross floor area of development for the respective forecast period to arrive at a charge per square foot for inclusion in the DC by-law. It is noted that a uniform non-residential charge is calculated for parks development, recreation facilities, and libraries, reflecting the nominal allocation to non-residential.

For services that are not specifically restricted by a per capita service level cap, an adjustment is made to reflect the balance in the DC reserve fund. A further adjustment was made to reflect the revenue loss as a result of prior years' discounting, phasing in and exemptions. This loss in revenue has been estimated and applied to the reserve fund balances. The reserve fund adjustments are shown below.

City of Ottawa
December 31, 2013 DC Reserve Fund Balances and DC Revenue Loss Amounts
(in 000's)

	Fund Balance	Allocation by Area			
		City-Wide	Inside	Outside	Rural
Roads	(13,538)	28,309	(12,418)	(27,977)	(1,452)
Storm	(1,306)	(1,306)	-	-	-
Sewer	(21,941)	13,372	(6,411)	(28,923)	21
Water	(27,341)	940	1,111	(29,005)	(388)
Transit	(52,768)	(52,768)	-	-	-
Studies	(368)	(219)	(425)	(1,015)	1,291
	(117,263)	(11,671)	(18,143)	(86,920)	(528)

b) DC Revenue Loss

	DC Reserve Loss Balance	Allocation by Area			
		City-Wide	Inside	Outside	Rural
Roads	51,423	45,171	164	5,880	208
Storm	186	186	-	-	-
Sewer	10,303	5,054	1,651	2,514	1,083
Water	7,010	832	365	5,443	369
Transit	11,644	11,644	-	-	-
Studies	610	356	-	137	117
	81,176	63,242	2,181	13,975	1,777

c) Sub-total

	DC Reserve Fund Balance	Allocation by Area			
		City-Wide	Inside	Outside	Rural
Roads	37,885	73,480	(12,253)	(22,097)	(1,244)
Storm	(1,120)	(1,120)	-	-	-
Sewer	(11,638)	18,427	(4,760)	(26,409)	1,104
Water	(20,331)	1,772	1,476	(23,561)	(19)
Transit	(41,124)	(41,124)	-	-	-
Studies	242	137	(425)	(878)	1,408
	(36,087)	51,571	(15,963)	(72,945)	1,249

H:\OTTAWA\2014 DC\Ottawa DC Model 2014-March20.xlsx\Reserve Summary

Table C-1 summarizes the calculated charge per single detached dwelling unit for the three large areas (i.e. Inside the Greenbelt, Outside the Greenbelt, and Rural Area). These calculated charges are presented with the City's current development charge rates for comparison purposes. Table C-2 provides a comparison of current and calculated development charges by residential unit type and non-residential use. Table C-3 summarizes the calculated non-residential DC by service compared with current DC rates.

Table C-1
City of Ottawa
Comparison of August 31, 2013 Single Detached Development Charge vs. Calculated

1) Inside the Greenbelt

	Inside the Greenbelt as of August 1, 2013	Calculated			Difference
		City Wide	Inside the Greenbelt	Total	
Roads & Related Services	7,529	8,047	419	8,466	937
Sanitary Sewer	2,494	2,258	2,166	4,424	1,930
Water	1,329	173	180	353	(976)
Stormwater Drainage	44	42	42	42	(2)
Protection	30	445	0	445	415
Public Transit	3,849	6,409		6,409	2,560
Parks Development (Non-District Parks)	377	0	255	255	(122)
Recreation Facilities	318	82	818	900	582
Libraries	485	253	222	475	(10)
Child Care Facilities	86			0	(86)
Paramedic Service	53	89		89	36
Affordable Housing Program	189			0	(189)
Corporate Studies	108	101	0	101	(7)
Total	16,891	17,899	4,060	21,959	5,068

2) Outside the Greenbelt

	Outside the Greenbelt as of August 31, 2013	Calculated			Difference
		City Wide	Outside the Greenbelt	Total	
Roads & Related Services	8,742	8,047	2,412	10,459	1,717
Sanitary Sewer	2,279	2,258	2,702	4,960	2,681
Water	2,268	173	2,857	3,030	762
Stormwater Drainage	44	42	42	42	(2)
Protection	707	445	508	953	246
Public Transit	3,850	6,409		6,409	2,559
Parks Development (Non-District Parks)	2,703		2,270	2,270	(433)
Recreation Facilities	3,859	82	3,800	3,882	23
Libraries	385	253	335	588	203
Child Care Facilities	86			0	(86)
Paramedic Service	53	89		89	36
Affordable Housing Program	189			0	(189)
Corporate Studies	150	101	92	193	43
Total	25,315	17,899	14,976	32,875	7,560

Outside the Greenbelt (excluding Millennium Park Area)

Parks Development (District Parks)	0	0	227	227	227
Total	25,315	17,899	15,203	33,102	7,787

Outside the Greenbelt (Millennium Park Area)

Parks Development (District Parks)	0	0	555	555	555
Total	25,315	17,899	15,531	33,430	8,115

3) Rural

	Rural Serviced as of August 31, 2013	Calculated			Difference
		City Wide	Rural Serviced	Total Serviced	
Roads & Related Services	8,455	8,047	460	8,507	52
Stormwater Drainage	47	42		42	(5)
Protection	415	445	199	644	229
Public Transit	1,284	6,409		6,409	5,125
Parks Development (Non-District Parks)	1,169	0	3,157	3,157	1,988
Recreation Facilities	541	82	454	536	(5)
Libraries	454	253	552	805	351
Child Care Facilities	86			0	(86)
Paramedic Service	53	89		89	36
Affordable Housing Program	189			0	(189)
Corporate Studies	1,177	101	121	222	(955)
Total	13,870	15,468	4,943	20,411	6,541

Rural Serviced (Richmond)

Sanitary Sewer	1,237	2,258	14,657	16,915	15,678
Total	15,107	17,726	19,600	37,326	22,219

Rural Serviced (Manotick)

Sanitary Sewer	1,237	2,258	6,718	8,976	7,739
Water	975	173	3,477	3,650	2,675
Total	16,082	17,899	15,138	33,037	16,955

Table C-2
City of Ottawa
Calculated Full Recovery Development Charges by Residential Unit Type

Development Location/Type	August 1, 2013 Charge	Calculated Charge	
		\$	%
<u>INSIDE THE GREENBELT</u>			
Residential			
• Single and Semi-detached	16,891	21,959	100%
• Apartment (2+ bedrooms)	8,557	12,934	58.90%
• Apartment (less than 2 bedrooms)	6,948	9,524	43.37%
• Multiple, row and mobile dwelling	12,291	17,198	78.32%
Non-residential (per sq.ft. GFA)			
• General	17.88	} 19.80	
• Commercial, Institutional, Industrial	14.48		
• Limited Industrial	8.22		
<u>OUTSIDE THE GREENBELT</u>			
Residential			
• Single and Semi-detached	25,315	33,102	100%
• Apartment (2+ bedrooms)	14,742	17,564	53.06%
• Apartment (less than 2 bedrooms)	10,235	12,933	39.07%
• Multiple, row and mobile dwelling	19,706	24,899	75.22%
Non-residential (per sq.ft. GFA)			
• General	17.88	} 19.80	
• Commercial, Institutional, Industrial	14.48		
• Limited Industrial	8.22		
<u>RURAL SERVICED</u>			
Residential			
• Single and Semi-detached	16,082	22,842	100%
• Apartment (2+ bedrooms)	8,605	13,114	57.41%
• Apartment (less than 2 bedrooms)	7,030	9,655	42.27%
• Multiple, row and mobile dwelling	12,958	14,843	64.98%
Non-residential (per sq.ft. GFA)			
• General	17.88	} 19.80	
• Commercial, Institutional, Industrial	14.48		
• Limited Industrial	8.22		

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Table C-3
City of Ottawa
Comparison of Current Non-residential Development Charges vs. Calculated

1) City-Wide (Industrial and Non-Industrial)

Non- Industrial	Non-Res. General & Commercial, Institutional, Industrial as of August 1, 2013	Calculated City Wide Non-Industrial	Difference
Roads & Related Services	9.95 - 8.06	9.41	(0.54) - 1.35
Sanitary Sewer	1.90 - 1.54	1.80	(0.10) - 0.26
Water	0.40 - 0.32	0.34	(0.06) - 0.02
Stormwater Drainage	0.05 - 0.04	0.04	(0.01) - 0.00
Protection	0.56 - 0.45	0.76	0.20 - 0.31
Public Transit	4.19 - 3.39	6.73	2.54 - 3.34
Parks Development (Non-District Parks)	0.18 - 0.15	0.16	(0.02) - 0.01
Parks Development (District Parks)	0.00 - 0.00	0.01	0.01 - 0.01
Recreation Facilities	0.24 - 0.19	0.24	(0.00) - 0.04
Libraries	0.04 - 0.03	0.06	0.02 - 0.02
Child Care Facilities	0.10 - 0.08	0.00	(0.10) - (0.08)
Paramedic Service	0.06 - 0.05	0.09	0.03 - 0.04
Affordable Housing Program	0.00 - 0.00	0.00	0.00 - 0.00
Corporate Studies	0.21 - 0.17	0.16	(0.05) - (0.01)
Total	17.88 - 14.48	19.80	1.92 - 5.32

Rural Serviced (Richmond)

Sanitary Sewer	0.00 - 0.00	20.12	20.12 - 20.12
Total	17.88 - 14.48	39.92	22.04 - 25.44

Rural Serviced (Manotick)

Sanitary Sewer	0.00 - 0.00	9.23	9.23 - 9.23
Water	0.00 - 0.00	4.78	4.78 - 4.78
Total	17.88 - 14.48	33.81	15.93 - 19.33

Industrial	Limited Industrial as of August 1, 2013	Calculated City Wide Industrial	Difference
Roads & Related Services	4.57	3.99	(0.59)
Sanitary Sewer	0.87	0.85	(0.02)
Water	0.18	0.15	(0.03)
Stormwater Drainage	0.02	0.02	(0.01)
Protection	0.26	0.30	0.04
Public Transit	1.93	2.77	0.84
Parks Development (Non-District Parks)	0.08	0.16	0.08
Parks Development (District Parks)	0.00	0.01	0.01
Recreation Facilities	0.11	0.24	0.12
Libraries	0.02	0.06	0.04
Child Care Facilities	0.05	0.00	(0.05)
Paramedic Service	0.03	0.03	0.00
Affordable Housing Program	0.00	0.00	0.00
Corporate Studies	0.10	0.06	(0.03)
Total	8.22	8.63	0.41

Rural Serviced (Richmond)

Sanitary Sewer	0.00	0.00	0.00
Total	8.22	8.63	0.41

Rural Serviced (Manotick)

Sanitary Sewer	0.00	3.64	3.64
Water	0.00	1.88	1.88
Total	8.22	14.15	5.93

**Table CW-1-City of Ottawa
City-Wide Summary
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2023) 000's \$ 2014\$					Development Charge Per:										
	Residential Share	Non- residential	Industrial Share	Non-Industrial Share	Total	SDU \$ per unit	Industrial			Non-Industrial						
							re: City Wide	re: Area Specific	\$ per sq.ft.	re: City Wide	re: Area Specific	\$ per sq.ft.				
Protection (Fire & Police)	19,964	66%		1,013	3%	9,272	31%	30,249	445	0.17 +	0.13 * =	0.30	0.44 +	0.32 * =	0.76	
Parks Development (Non-District Parks)	0		0				0	0	0.00 +	0.16 * =	0.16	0.00 +	0.16 * =	0.16		
Parks Development (District Parks)	0		0				0	0	0.00 +	0.01 * =	0.01	0.00 +	0.01 * =	0.01		
Recreation Facilities	3,675	95%	193	5%			3,868	82	0.01 +	0.23 * =	0.24	0.01 +	0.23 * =	0.24		
Libraries	11,372	95%	598	5%			11,970	253	0.02 +	0.04 * =	0.06	0.02 +	0.04 * =	0.06		
Paramedic Service	3,973	66%		201	3%	1,843	31%	6,017	89	0.03	=	0.03	0.09	=	0.09	
Corporate Studies (Net of Reserve Funds)	4,524	66%		230	3%	2,101	31%	6,855	101	0.04 +	0.02 * =	0.06	0.10 +	0.06 * =	0.16	
Net Growth Related Capital Costs	43,508		791			1,444		13,215	58,959	970	0.27 +	0.58 * =	0.85	0.66 +	0.81 * =	1.47
Gross Population Increase to 2024	149,903															
Gross Floor Area to 2024			27,010,630			5,899,527		21,111,103								
Per Capita DC Charge	290.24		0.03			0.24		0.63								
Development Charges Per: Single & Semi Detached Unit (3.34 ppu)	969															
Sq.ft. of Non-residential GFA			0.03			0.27		0.66								

Note:

* A portion of the City-Wide non-residential charge is made up from the non-residential capital costs at the area-specific level.

**Table CW-2-City of Ottawa
City-Wide
Public Transit
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2023) 000's \$ 2014\$			
	Residential Share	Industrial Share	Non-Industrial Share	Total
Public Transit	262,917 60%	26,154 6%	148,546 34%	437,617
Public Transit Reserve Fund	24,707	2,458	13,959	41,124
Net Growth Related Capital Costs	287,624	28,612	162,505	478,741
Gross Population Increase to 2024	149,903 ¹			
Gross Floor Area to 2024		10,324,847 ¹	24,158,338 ¹	
Per Capita DC Charge	1,918.73	2.77	6.73	
<u>Development Charges Per:</u>				
Single & Semi Detached Unit (3.34 ppu)	6,409			
Sq.ft. of Non-residential GFA		2.77	6.73	

¹ City-wide forecast.

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**Table CW-3-City of Ottawa
City-Wide Summary
Roads and Related & Stormwater Drainage
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)						Development Charge Per:			
	Residential Share		Industrial Share		Non-Industrial Share		Total	SDU \$ per unit	Industrial \$ per sq.ft.	Non- Industrial \$ per sq.ft.
Roads & Related Service	616,414	61%	57,480	6%	329,225	33%	1,003,119			
Roads & Structures Reserve Funds	(45,153)	61%	(4,211)	6%	(24,116)	33%	(73,480)			
Roads Sub-total	571,261	61%	53,269	6%	305,109	33%	929,639	8,047	3.39	8.00
								*	0.60	* 1.41 *
Stormwater Drainage	2,304	61%	215	6%	1,231	33%	3,750			
Storm Drainage Reserve Funds	688	61%	64	6%	368	33%	1,120			
Storm sub-total	2,992		279		1,599		4,870	42	0.02	0.04
Net Growth Related Capital Costs	574,253		53,548		306,708		934,509	8,089	4.01	9.45
Gross Population Increase to 2031	237,102									
Gross Floor Area to 2031			15,717,251		38,142,607					
Per Capita DC Charge	2,421.97		3.41		8.04					
<u>Development Charges Per:</u>										
Single & Semi Detached Unit (3.34 ppu)	8,089									
Sq.ft. of Non-residential GFA			3.41		8.04					

Note:

* A portion of the City-Wide non-residential charge is made up from the non-residential capital costs at the area-specific level.

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**Table CW-4-City of Ottawa
City-Wide Summary
Sanitary Sewers
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)				Development Charge Per:					
	Residential Share		Industrial Share		Non-Industrial Share		Total	SDU \$ per unit	Industrial \$ per sq.ft.	Non- Industrial \$ per sq.ft.
Sanitary Sewers	158,483	78%	6,644	3%	38,055	19%	203,182			
Sanitary Services Reserve Funds	(14,373)	78%	(603)	3%	(3,451)	19%	(18,427)			
Sanitary Sewers Sub-total	144,110	78%	6,041	3%	34,604	19%	184,755	2,258	0.44	0.93
									0.41 *	0.87 *
Net Growth Related Capital Costs	144,110		6,041		34,604		184,755	2,258	0.85	1.80
Gross Population Increase to 2031	213,169									
Gross Floor Area to 2031			13,816,499	¹	37,048,114	¹				
Per Capita DC Charge	676.04		0.44		0.93					
Development Charges Per:										
Single & Semi Detached Unit (3.34)	2,258									
Sq.ft. of Non-residential GFA			0.44		0.93					

Note:

*** A portion of the City-Wide non-residential charge is made up from the non-residential capital costs at the area-specific level.**

¹ City-Wide Sanitary Area total.

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Table CW-5-City of Ottawa
City-Wide Summary
Water
Development Charge Calculations-Average Cost Method

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)				Development Charge Per:					
	Residential Share		Industrial Share		Non-Industrial Share		Total	SDU \$ per unit	Industrial \$ per sq.ft.	Non- Industrial \$ per
Water Services	12,370	78%	509	3%	2,916	18%	15,795			
Water Services Reserve Funds	(1,388)	78%	(57)	3%	(327)	18%	(1,772)			
Water sub-total	10,982	78%	452	3%	2,589	18%	14,023	173	0.03	0.07
								*	0.12	* 0.27
Net Growth Related Capital Costs	10,982		452		2,589		14,023	173	0.15	0.34
Gross Population Increase to 2031	211,789									
Gross Floor Area to 2031			14,192,200	¹	36,983,695	¹				
Per Capita DC Charge	51.85		0.03		0.07					
Development Charges Per:										
Single & Semi Detached Unit (3.34 ppu)	173									
Sq.ft. of Non-residential GFA			0.03		0.07					

Note:

* A portion of the City-Wide non-residential charge is made up from the non-residential capital costs at the area-specific level.

¹ City-Wide Water Area total.

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**Table IG-1-City of Ottawa
Inside the Greenbelt Summary
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2023) 000's \$ 2014\$					Development Charge Per:	
	Residential Share	Non-residential Share	Industrial Share	Non-Industrial Share	Total	SDU \$ per unit	\$ per sq.ft.
Protection (Fire & Police)	0		0	0	0	0	0.00
Parks Development (Non-District Parks)	3,567 95%	188 5%			3,755	255	0.01
Recreation Facilities	11,428 95%	601 5%			12,029	818	0.03
Libraries	3,095 95%	163 5%			3,258	222	0.01
Net Growth Related Capital Costs	18,090	952	0	0	19,042	1,295	0.04
Gross Population Increase to 2024	43,170						
Gross Floor Area to 2024 (City-wide)		27,010,630 ¹	5,899,527 ¹	21,111,103 ¹			
Per Capita DC Charge	419.04	0.04	0.00	0.00			
Development Charges Per: Single & Semi Detached Unit (3.09 ppu)	1,295						
Sq.ft. of Non-residential GFA		0.04	0.04	0.04			

Note:

Non-residential portion to be added to City-Wide non-residential charge

¹ City-Wide total.

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**Table IG-2-City of Ottawa
Inside the Greenbelt Summary
Roads and Related & Stormwater Drainage
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)			
	Residential Share	Industrial Share	Non-Industrial Share	Total
Roads & Related Service	2,241 61%	209 6%	1,197 33%	3,647
Roads & Structures Reserve Funds	<u>7,529 61%</u>	<u>702 6%</u>	<u>4,022 33%</u>	<u>12,253</u>
Roads Sub-total	9,770 61%	911 6%	5,219 33%	15,900
Net Growth Related Capital Costs	9,770	911	5,219	15,900
Gross Population Increase to 2031	72,055			
Gross Floor Area to 2031 (City-wide)		15,717,251 ¹	38,142,607 ¹	
Per Capita DC Charge	135.59	0.06	0.14	
<u>Development Charges Per:</u> Single & Semi Detached Unit (3.09 ppu)	419			
Sq.ft. of Non-residential GFA		0.06	0.14	

Note:**Non-residential portion to be added to City-Wide non-residential charge**¹ City-Wide total.

**Table IG-3-City of Ottawa
Inside the Greenbelt Summary
Sanitary Sewers
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)						
	Residential Share		Industrial Share		Non-Industrial Share		Total
Sanitary Sewers	47,128	71%	2,861	4%	16,388	25%	66,377
Sanitary Services Reserve Funds	<u>3,380</u>	71%	<u>205</u>	4%	<u>1,175</u>	25%	<u>4,760</u>
Sanitary Sewers Sub-total	50,508	71%	3,066	4%	17,563	25%	71,137
Net Growth Related Capital Costs	50,508		3,066		17,563		71,137
Gross Population Increase to 2031	72,055						
Gross Floor Area to 2031 (City-wide)			13,816,499	¹	37,048,114	¹	
Per Capita DC Charge	700.96		0.22		0.47		
Development Charges Per:							
Single & Semi Detached Unit (<u>3.09</u> <u>ppu</u>)	2,166						
Sq.ft. of Non-residential GFA			0.22		0.47		

Note:**Non-residential portion to be added to City-Wide non-residential charge**

¹ City-Wide Sanitary Area total.

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**Table IG-4-City of Ottawa
Inside the Greenbelt Summary
Water
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)			
	Residential Share	Industrial Share	Non-Industrial Share	Total
Water Services	5,328 77%	239 3%	1,370 20%	6,937
Water Services Reserve Funds	<u>(1,134) 77%</u>	<u>(51) 3%</u>	<u>(291) 20%</u>	<u>(1,476)</u>
Water Sub-total	4,194 77%	188 3%	1,079 20%	5,461
Net Growth Related Capital Costs	4,194	188	1,079	5,461
Gross Population Increase to 2031	72,055			
Gross Floor Area to 2031 (City-wide)		14,192,200 ¹	36,983,695 ¹	
Per Capita DC Charge	58.21	0.01	0.03	
Development Charges Per: Single & Semi Detached Unit (3.09 ppu)	180			
Sq.ft. of Non-residential GFA		0.01	0.03	

Note:

Non-residential portion to be added to City-Wide non-residential charge

¹ City-Wide Water Area total.

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**Table OG-1-City of Ottawa
Outside the Greenbelt Summary
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2023) 000's \$ 2014\$					Development Charge Per:					
	Residential Share	Non-residential Share	Industrial Share	Non-Industrial Share	Total	SDU \$ per unit	Industrial \$ per sq.ft.	Non- Industrial \$ per sq.ft.			
Protection (Fire & Police)	13,440	66%		682	3%	6,241	31%	20,363	508	0.12	0.30
Parks Development (Non-District Parks)	60,089	95%	3,163	5%				63,252	2,270	0.12	0.12
Recreation Facilities	100,593	95%	5,294	5%				105,887	3,800	0.20	0.20
Libraries	8,868	95%	467	5%				9,335	335	0.02	0.02
Studies (Net of Reserve Funds)	2,439	68%		112	3%	1,027	29%	3,578	92	0.02	0.05
Net Growth Related Capital Costs	185,429		8,924		794		7,268	202,415	7,005	0.48	0.69
Gross Population Increase to 2024	90,800										
Gross Floor Area to 2024 (City-wide)			27,010,630 ¹		5,899,527 ¹		21,111,103 ¹				
Per Capita DC Charge	2,042.17		0.33		0.13		0.34				
<u>Development Charges Per:</u> Single & Semi Detached Unit (3.43 ppu)	7,005										
Sq.ft. of Non-residential GFA			0.33		0.47		0.68				

Note:**Non-residential portion to be added to City-Wide non-residential charge**¹ City-Wide total.

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**Table OG-2-City of Ottawa
Outside the Greenbelt Summary
District Parks - Outside Greenbelt (excluding Millennium Park Area)
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2023) 000's \$ 2014\$				
	Residential Share		Non-residential Share		Total
Parks Development (District Parks)	5,010	95%	264	5%	5,274
Net Growth Related Capital Costs	5,010		264		5,274
Gross Population Increase to 2024	75,851				
Gross Floor Area to 2024 (City-wide)			27,010,630	¹	
Per Capita DC Charge	66.05		0.01		
<u>Development Charges Per:</u> Single & Semi Detached Unit (3.43 ppu)	227				
Sq.ft. of Non-residential GFA			0.01		

Note:

Non-residential portion to be added to City-Wide non-residential charge

¹ City-Wide total.

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**Table OG-2a-City of Ottawa
Outside the Greenbelt Summary
District Parks - Outside Greenbelt (Millennium Park Area)
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2023) 000's \$ 2014\$		
	Residential Share	Non-residential Share	Total
Parks Development (District Parks)	2,420 95%	127 5%	2,547
Net Growth Related Capital Costs	2,420	127	2,547
Gross Population Increase to 2024	14,949		
Gross Floor Area to 2024 (City-wide)		27,010,630 ¹	
Per Capita DC Charge	161.89	0.00	
Development Charges Per: Single & Semi Detached Unit (3.43 ppu)	555		
Sq.ft. of Non-residential GFA		0.00	

Note:

Non-residential portion to be added to City-Wide non-residential charge

¹ City-Wide total.

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**Table OG-3-City of Ottawa
Outside the Greenbelt Summary
Roads and Related & Stormwater Drainage
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)						
	Residential Share		Industrial Share		Non-Industrial Share		Total
Roads & Related Service	83,952	64%	6,931	5%	39,698	30%	130,581
Roads & Structures Reserve Funds	<u>14,206</u>	64%	<u>1,173</u>	5%	<u>6,718</u>	30%	<u>22,097</u>
Roads Sub-total	98,158	64%	8,104	5%	46,416	30%	152,678
Net Growth Related Capital Costs	98,158		8,104		46,416		152,678
Gross Population Increase to 2031	139,587						
Gross Floor Area to 2031 (City-wide)			15,717,251	¹	38,142,607	¹	
Per Capita DC Charge	703.20		0.52		1.22		
<u>Development Charges Per:</u> Single & Semi Detached Unit (3.43 ppu)	2,412						
Sq.ft. of Non-residential GFA			0.52		1.22		

Note:**Non-residential portion to be added to City-Wide non-residential charge**

¹ City-Wide total.

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**Table OG-4-City of Ottawa
Outside the Greenbelt Summary
Sanitary Sewers
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)						
	Residential Share		Industrial Share		Non-Industrial Share	Total	
Sanitary Sewers	87,185	86%	2,064	2%	11,825	12%	101,074
Sanitary Services Reserve Funds	<u>22,780</u>	86%	<u>539</u>	2%	<u>3,090</u>	12%	<u>26,409</u>
Sanitary Sewers Sub-total	109,965	86%	2,604	2%	14,914	12%	127,483
Net Growth Related Capital Costs	109,965		2,604		14,914		127,483
Gross Population Increase to 2031	139,587						
Gross Floor Area to 2031 (City-wide)			13,816,499	¹	37,048,114	¹	
Per Capita DC Charge	787.79		0.19		0.40		
<u>Development Charges Per:</u> Single & Semi Detached Unit (3.43 ppu)	2,702						
Sq.ft. of Non-residential GFA			0.19		0.40		

Note:**Non-residential portion to be added to City-Wide non-residential charge**

¹ City-Wide Sanitary Area total.

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**Table OG-5-City of Ottawa
Outside the Greenbelt Summary
Water
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)			
	Residential Share	Industrial Share	Non-Industrial Share	Total
Water Services	94,699 92%	1,288 1%	7,377 7%	103,364
Water Services Reserve Funds	21,586 92%	294 1%	1,681 7%	23,561
Water Sub-total	116,285 92%	1,582 1%	9,058 7%	126,925
Net Growth Related Capital Costs	116,285	1,582	9,058	126,925
Gross Population Increase to 2031	139,587			
Gross Floor Area to 2031 (City-wide)		14,192,200 ¹	36,983,695 ¹	
Per Capita DC Charge	833.06	0.11	0.24	
<u>Development Charges Per:</u> Single & Semi Detached Unit (3.43 ppu)	2,857			
Sq.ft. of Non-residential GFA		0.11	0.24	

Note:**Non-residential portion to be added to City-Wide non-residential charge**

¹ City-Wide Water Area total.

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**Table R-1-City of Ottawa
Rural Summary
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2023) 000's \$ 2014\$								Development Charge Per:			
	Residential Share		Non-residential Share		Industrial Share		Non-Industrial Share		Total	SDU \$ per unit	Industrial \$ per sq.ft.	Non- Industrial \$ per sq.ft.
Protection (Fire & Police)	998	66%			51	3%	463	31%	1,512	199	0.01	0.02
Parks Development (Non-District Parks)	15,869	95%	835	5%					16,704	3,157	0.03	0.03
Recreation Facilities	2,280	95%	120	5%					2,400	454	0.00	0.00
Libraries	2,774	95%	146	5%					2,920	552	0.01	0.01
Studies (Net of Reserve Funds)	608	68%			28	3%	256	29%	892	121	0.00	0.01
Net Growth Related Capital Costs	22,529		1,101		79		719		24,428	4,483	0.05	0.07
Gross Population Increase to 2024	15,933											
Gross Floor Area to 2024 (City-wide)			27,010,630	¹	5,899,527	¹	21,111,103	¹				
Per Capita DC Charge	1,413.99		0.04		0.01		0.03					
Development Charges Per: Single & Semi Detached Unit (3.17 ppu)	4,482											
Sq.ft. of Non-residential GFA			0.04		0.05		0.07					

Note:**Non-residential portion to be added to City-Wide non-residential charge**¹ City-Wide total.

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**Table R-2-City of Ottawa
Rural Summary
Roads and Related & Stormwater Drainage
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)			
	Residential Share	Industrial Share	Non-Industrial Share	Total
Roads & Related Service	2,910 63%	253 5%	1,449 31%	4,612
Roads & Structures Reserve Funds	<u>785 63%</u>	<u>68 5%</u>	<u>391 31%</u>	<u>1,244</u>
Roads Sub-total	3,695 63%	321 5%	1,840 31%	5,856
Net Growth Related Capital Costs	3,695	321	1,840	5,856
Gross Population Increase to 2031 (Service Rural)	25,460			
Gross Floor Area to 2031 (City-wide)		15,717,251 ¹	38,142,607 ¹	
Per Capita DC Charge	145.12	0.02	0.05	
<u>Development Charges Per:</u> Single & Semi Detached Unit (3.17 ppu)	460			
Sq.ft. of Non-residential GFA		0.02	0.05	

Note:

Non-residential portion to be added to City-Wide non-residential charge

¹ City-Wide total.

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**Table R-3-City of Ottawa
Manotick Summary
Water
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs						
	Residential Share		Industrial Share		Non-Industrial Share	Total	
Water Services	5,959	85%	48	1%	1,004	14%	7,011
Water Services Reserve Funds	-	85%	-		-		-
Water Sub-total	5,959	85%	48	1%	1,004	14%	7,011
Net Growth Related Capital Costs	5,959		48		1,004		7,011
Gross Population Increase to 2031 (Service Rural)	5,433						
Gross Floor Area to 2031			25,434		210,076		
Per Capita DC Charge	1,096.82		1.88		4.78		
<u>Development Charges Per:</u> Single & Semi Detached Unit (3.17 ppu)	3,477						
Sq.ft. of Non-residential GFA			1.88		4.78		

Note:

Non-residential portion to be added to City-Wide non-residential charge

**Table R-4-City of Ottawa
Rural Summary
Sanitary Sewers - Village of Richmond
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs (2014-2031) (000's 2014\$)				
	Residential Share	Industrial Share	Non-Industrial Share	Total	
Sanitary Sewers	28,500	95%	- 0%	1,500 5%	30,000
Sanitary Services Reserve Funds	-	95%	- 0%	- 5%	-
Sanitary Sewers Sub-total	28,500	95%	- 0%	1,500 5%	30,000
Net Growth Related Capital Costs	28,500		0	1,500	30,000
Gross Population Increase to 2031 (Service Rural)	6,164				
Gross Floor Area to 2031				74,567	
Per Capita DC Charge	4,623.55			20.12	
<u>Development Charges Per:</u>					
Single & Semi Detached Unit (3.17 ppu)	14,657				
Sq.ft. of Non-residential GFA		0.00		20.12	

Note:**Non-residential portion to be added to City-Wide non-residential charge**

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**Table R-4a-City of Ottawa
Sanitary Sewers - Manotick
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs						
	Residential Share		Industrial Share		Non-Industrial Share		Total
Sanitary Sewers	11,514	85%	93	1%	1,939	14%	13,546
Sanitary Services Reserve Funds	-	85%	-		-		-
Sanitary Sewers Sub-total	11,514	85%	93	1%	1,939	14%	13,546
Net Growth Related Capital Costs	11,514		93		1,939		13,546
Gross Population Increase to 2031 (Service Rural)	5,433						
Gross Floor Area to 2031			25,434		210,076		
Per Capita DC Charge	2,119.26		3.64		9.23		
Development Charges Per: Single & Semi Detached Unit (3.17 ppu) Sq.ft. of Non-residential GFA	6,718		3.64		9.23		

Note:

Non-residential portion to be added to City-Wide non-residential charge

**Table P-1-City of Ottawa
Provence Avenue
Development Charge Calculations-Average Cost Method**

Service Category/ Component	Net Growth Related Costs						
	Residential Share		Industrial Share		Non-Industrial Share	Total	
Roads and Related	1,100,000	100%	-	0%	-	0%	1,100,000
Sanitary Sewer	500,000	100%	-	0%	-	0%	500,000
Net Growth Related Capital Costs	1,600,000		0		0		1,600,000
Gross Population Increase to 2031	2,091						
Gross Floor Area to 2031			0		0		
Per Capita DC Charge	765.18						
Development Charges Per: Single & Semi Detached Unit (3.34 ppu) Sq.ft. of Non-residential GFA	2,556		0.00		0.00		

Table F-1-City of Ottawa
Flag Station Road
Development Charge Calculations-Average Cost Method

Service Category/ Component	Net Growth Related Costs			
	Residential Share	Industrial Share	Non-Industrial Share	Total
Roads and Related	90,000 100%	- 0%	- 0%	90,000
Net Growth Related Capital Costs	90,000	0	0	90,000
Gross Population Increase to 2031	62			
Gross Floor Area to 2031		0	0	
Per Capita DC Charge	1,451.61			
Development Charges Per: Single & Semi Detached Unit (3.34 ppu) Sq.ft. of Non-residential GFA	4,848	0.00	0.00	

APPENDIX D

**GUIDELINES RE LANDOWNER EMPLACEMENT OF LOCAL
SERVICES UNDER DEVELOPMENT AGREEMENTS**

APPENDIX D - GUIDELINES RE LANDOWNER EMPLACEMENT OF LOCAL SERVICES UNDER DEVELOPMENT AGREEMENTS

Introduction

The policy guidelines are general principles by which staff will be guided in considering development applications. However, each application will be considered on its own merits regarding, among other factors: the nature, type, and location of the development and any existing and proposed development in the surrounding area; these policy guidelines; the location and type of services required and their relationship to the proposed development and existing development in the area; and the *Development Charges Act, 1997*.

The following guidelines set out the size and nature of engineered infrastructure included in the study as development charge projects. All other engineered infrastructure will be considered as a local service to be emplaced as part of the development.

Water

Subject to the criteria noted below, water works that are identified in an approved master plan or serviceability plan qualify as development charges projects. The detailed engineering requirements of the items below are governed by the detailed engineering standards for the City of Ottawa.

1. *Watermains*

Local watermains are typically 406 mm and smaller and support direct service connections. Feeder mains are typically 610mm and larger, feed/service areas beyond local development and do not support local service connections. Watermains, having a nominal diameter equal to or greater than 610 mm, are considered to be development charges projects and watermains of 405 mm or less are considered a developer's responsibility, subject to the criteria below.

Feeder mains are typically located on Arterial or Major collector roads or easements where lot frontage is not normally permitted. Since a watermain of any size located within this right of way has no direct servicing benefit but is required by the developer for local services:

- i. The contribution towards “oversizing” through development charges for pipes greater than 610 mm shall be the cost in excess of the cost of a 405 mm watermain and shall increase as the pipe size increases, as follows:

Watermain Size	Charged to DCs
405 mm	NIL
610 mm	(cost of 610mm less cost of 405mm)
750 mm	(cost of 750mm less cost of 405mm)
900 mm	(cost of 900mm less cost of 405mm)
1050 mm	(cost of 1050mm less cost of 405mm)
1200 mm	(cost of 1200mm less cost of 405mm)

- ii. Where identified in an approved serviceability study, off-site feeder mains of any size required to provide network integrity or reliability to the distribution network, or to correct health-related water supply concerns having a growth-related component, are considered development charges projects and 100% recoverable.
- iii. All other watermains are considered a direct developer responsibility, including all required looping to service the development lands.
- iv. One price per nominal pipe diameter shall apply to all over-sizing costs as set out in the corresponding table in the DC by-law.

2. *Booster Pumping Stations and Reservoirs*

- i. Upgrades to, or construction of, temporary water booster pumping stations and reservoir projects are considered to be the developer’s responsibility.
- ii. Upgrades to, or construction of, permanent water booster pumping stations and reservoir projects are considered to be development charges projects.

Wastewater

Subject to the criteria noted below, wastewater works that are identified in an approved master plan or serviceability plan, qualify as development charges projects. The detailed engineering requirements of the items below are governed by the detailed engineering standards for the City of Ottawa.

The City may enter into a front ending agreement with a developer for infrastructure not qualifying as a development charges project. The front ending agreement may be used to assist in recovering costs from other benefiting owners.

1. **Sanitary Sewers**

The development charge benchmark for pipe size and flow is based on a 40 ha town house development (i.e. a town house development is judged a blended average between low and high density housing and is consistent with the current Official Plan). Flow is then estimated in accordance with the latest City design guidelines.

- i. Only over-sizing costs for trunk sanitary sewers meeting the combined criteria of having a nominal diameter being equal to or greater than 450 mm and having a flow greater than 80 l/s are considered to be development charges projects. The contribution towards 'over-sizing' through development charges for pipes equal to or greater than 450 mm and having a flow greater than 80 l/s shall be the cost in excess of the cost of a 375 mm sanitary sewer and shall increase as the pipe size increases, as follows:

Size of Sanitary Sewer	Charged to DCs
375 mm	NIL
450mm @ 80l/s	(cost of 450mm less cost of 375mm)
525 mm	(cost of 525mm less cost of 375mm)
600 mm	(cost of 600mm less cost of 375mm)
675 mm	(cost of 675mm less cost of 375mm)
750 mm	(cost of 750mm less cost of 375mm)
900 mm	(cost of 900mm less cost of 375mm)
Larger pipe sizes	(cost of larger pipe less cost of 375mm)

- ii. Development Charges funding will also extend to correct a health-related and/or environmental concern with a growth-related component.
- iii. All other sanitary sewers are considered to be the developer's responsibility.
- iv. One price per nominal pipe diameter shall apply to all over-sizing costs as set out in the corresponding table of the DC by-law.
- v. Over-depth for upstream lands and rock excavation will be considered on an individual project basis, up to a maximum allowance of 15% of the over-sizing costs.

2. *Pumping Stations*

- i. Upgrades to, or construction of, temporary sanitary pumping stations are considered to be the developer's responsibility.
- ii. Upgrades to, or construction of, permanent pumping stations that are required as a result of an approved serviceability study, service more than one developer, and have a tributary flow greater than 80 l/s are considered to be development charges projects.
- iii. New or expanded pumping stations that do not qualify as development charges projects are the developer's responsibility.

Land Acquisition for Water and Wastewater Works

1. *Booster Stations and Reservoirs*

- i. Where the booster stations and reservoirs are not development charges projects, the land acquisition, to the size required by the design of the facility, is to be provided by the developer/landowner as part of the development review process.
- ii. When booster stations and reservoirs are considered development charges projects, the market value of the land is considered to be part of the capital cost of the development charge project.

2. *Pumping Stations*

- i. Where pump stations are not development charges projects, the land acquisition, to the size required by the design of the facility, is to be provided by the developer/landowner as part of the development review process.
- ii. When pumping stations are considered development charges projects, the market value of the land is considered to be part of the capital cost of the development charges project.

Actual Cost Reimbursement

1. Sanitary, Storm and Watermain Oversizing

Engineering 10%

Contingency 15%

No land as these are generally acquired via *Planning Act*.

2. Pumping Stations and Booster Stations

Engineering 10%

Project Management 10%

Land \$550,000/ha

Contingency 15%

Storm Water Management Works

Subject to the criteria noted below, storm water management works that are identified in an approved master drainage plan or serviceability plan, qualify as development charges projects. The detailed engineering requirements of the following items are governed by the Stormwater Management Planning and Design Manual (MOE, 2003) and the detailed engineering standards of the City of Ottawa.

1. Storm Sewers

The development charge benchmark for pipe size and flow is based on a 30 ha town house development (i.e. a town house development is judged a blended average between low and high density housing and is consistent with the current Official Plan). Flow is estimated in accordance with the latest City design guidelines.

- i. Only over-sizing costs for trunk storm sewers meeting the combined criteria of having a nominal pipe diameter being equal to or greater than 1800 mm and having a flow greater than 3600 l/s are considered to be development charges projects. The contribution towards 'over-sizing' through development charges for pipes equal to or greater than 1800 mm and having a flow greater than 3600 l/s shall be the cost in excess of the cost of a 1650 mm storm sewer and shall increase as the pipe size increases as follows:

Size of Storm Sewer	Charged to DCs
1650 mm	NIL
1800 mm	(cost of 1800mm less cost of 1650mm)
1950 mm	(cost of 1950mm less cost of 1650mm)
2100 mm	(cost of 2100mm less cost of 1650mm)
2250 mm	(cost of 2250mm less cost of 1650mm)
Larger pipe sizes	(cost of larger pipe less cost of 1650mm)

- ii. Where identified in an approved serviceability study or master drainage plan, any over-sizing required to service off-site lands and required for system integrity, or as a system improvement to accommodate growth, is considered a development charge project.
- iii. Where conditions of a particular development require on-site over-sizing, the on-site over-sizing shall be the developer's responsibility.
- iv. Unless identified as a development charges project, all storm sewers are considered to be the developer's responsibility.
- v. One price per nominal pipe diameter shall apply to all over-sizing costs as set out in the corresponding table of the DC by-law. Over-depth for upstream lands and rock excavation will be considered on an individual project basis, up to a maximum allowance of 15% of the over-sizing costs.
- vi. Where identified in an approved serviceability study or master drainage plan, upgrades or expansions to existing natural channels qualify as part of a large-area development charge, and storm sewers as identified in points i and ii above qualify as part of a small benefit area charge based on the tributary watershed.

2. Storm Water Management Facilities

- i. Where the City deems, through an approved study, that it is preferable to provide centralized facilities to serve growth-related projects controlled by multiple owners, they are considered development charges projects.
- ii. Quality and quantity works may be considered development charges projects where they have been identified through an approved study and they benefit a broader area of development growth. In some of these cases, the quality and quantity works are to be developed by a single owner, with the works commonly oversized for other benefiting lands. In such cases, the owner on whose lands the works are located will be responsible for their proportionate share of the work and the project is considered to be a development charges project.

- iii. All other stormwater quality and quantity works are a direct developer responsibility.
- iv. Storm water management facilities, as identified in point ii, qualify as part of a small benefit area/specific area charge. The benefit area is the tributary area to the SWM facility.
- v. Storm water management facilities costs shall include costs for developable land needed for the Storm Water Management Facility.

3. *Erosion Control Measures*

- i. Downstream erosion works and fish compensation works required to mitigate the impact of development and that have been identified through an approved study are development charges projects. In all other cases, a separate City-wide planning level study is required to assess existing stream stability and future impacts of development in order to maintain existing stream conditions and to apportion costs appropriately. The study costs will be considered a development charges project.

Road-Related

Subject to the criteria noted below, road related works that are identified in an official plan or transportation master plan qualify as development charges projects. The detailed engineering requirements of the items below are governed by the detailed engineering standards for the City of Ottawa.

1. *City Freeway (as defined in the Official Plan)*

- i. General principles have not been developed.

2. *Arterial Roads (as defined in the Official Plan)*

- i. New Arterial Roads or the widening of existing Arterial Roads shall be considered development charges projects.

3. Major Collector Roads (as defined in the Official Plan)

- i. The over-sizing costs of any additional width (over the first 11 m) required for the road surface of new Major Collector Roads are considered to be a development charges project.
- ii. The first 11 m of new Major Collector Roads is considered to be the developer's responsibility.
- iii. Widening of existing Major Collector Roads is considered to be a development charges project.

Specific Council authority is required before proceeding with a project for which a developer is entitled to reimbursement pursuant to i and ii above.

4. Collector Roads

- i. New Collector Roads of 11 m or less are considered to be the developer's responsibility.

5. Local Roads

- i. New Local Roads are considered to be the developer's responsibility.

6. Traffic Signals, Traffic Control Systems, and Intersection Modifications

- i. As part of the new construction or widening of Arterial or Major Collector Roads and if warranted, traffic signals and traffic control systems are considered to be development charges projects.
- ii. On Arterial or Major Collector Roads, off-site traffic signals, traffic control systems and intersection modifications, required to meet the needs of projected development growth and resulting in increasing traffic, are considered to be development charges projects, subject to meeting warrants.
- iii. Where foreseeable off-site intersection modifications, traffic signals and traffic control systems that are not enforceable under the Planning Act, are required as a result of growth, they will be considered development charges projects provided they have been identified within a development charge program. Identification of annual projects within the program will be through the budgetary process.

7. Streetlights

- i. Streetlights on Arterial Roads and for the oversized portion of the Major Collector Roads are considered to be development charges projects.
- ii. Streetlights on all other roads are considered to be the developer's responsibility.

8. Sidewalks

- i. Sidewalks on Arterial Roads are considered to be development charges projects.
- ii. Sidewalk(s) (i.e. one/both sides) on all other new Roads are not development charges projects and are considered to be the developer's responsibility.
- iii. Sidewalks on Arterial Roads and Major Collectors that are added when widening, are a development charge project.
- iv. Sidewalks that are external to a development and are necessary to connect the development to public spaces are considered to be the developer's responsibility.

9. Bike Lanes / Bike Paths

- i. Bike lanes within the road allowance are considered to be part of the road construction and should follow the guidelines explained in the road construction section.
- ii. Bike paths outside Road Allowances are considered to be the developer's responsibility if they are part of a plan of subdivision.

10. Noise Abatement Measures

- i. On Arterial or Major Collector Roads, noise abatement measures, when warranted (i.e., barriers, berms, etc.), are considered to be the developer's responsibility where such roads precede the development or are constructed during the development or are forecast to be constructed within five years of the development's completion.
- ii. Subject to 10i) above, on Arterial or Major Collector Roads, any other noise abatement measures, when warranted (i.e., barriers, berms, etc.), are considered to be development charges projects.

- iii. Internal to a development, noise abatement measures are the developer's responsibility.

11. Bus Pads

- i. When widening existing Arterial or Major Collector Roads, bus pads are considered to be development charges projects.
- ii. On all other roads, bus pads are considered to be the developer's responsibility.

12. Cost Reimbursement

Arterial roads:

- Engineering 10%
- Project Management 10%
- Land 10%
- Contingency 15%

Collector roads:

- Engineering 10%
- Contingency 15%
- No land as these are generally acquired via *Planning Act*

Land Acquisition for Roads

1. Road Allowances

- i. Land Acquisition for Arterial or Major Collector Roads, to the widths required according to the approved engineering standards, is primarily provided by dedications under the Planning Act. In areas where limited or no development is anticipated and direct dedication is unlikely, the land acquisition is considered to be part of the capital cost of the related development charges project.

2. Grade Separations

- i. Land Acquisition for Grade Separations (beyond normal dedication requirements) is considered to be part of the capital cost of the related development charges project.

APPENDIX E
2014 LONG TERM CAPITAL AND OPERATING
COST EXAMINATION

APPENDIX E - 2014 LONG TERM CAPITAL AND OPERATING COST EXAMINATION

The requirement for a long term capital and operating cost examination relative to the City's growth-related capital program, is addressed by the following reports, relevant excerpts from several of which have been included herein:

- a) 2013 Affordability of the Transportation Master Plan, Ottawa Pedestrian Plan and Ottawa Cycling Plan.
- b) Long Range Financial Plan IV – Tax Supported Capital (2012 report to Council).
- c) Long Range Financial Plan IV – Water and Sewer Rate Supported Program (2012 Report to Council)
- d) The Draft 2013 Transportation Master Plan (October, 2013).
- e) The Draft 2013 Infrastructure Master Plan (September, 2013).
- f) 2013 Update to the Comparative Fiscal Impact Analysis.
- g) 2014 Operating and Capital Budget.

Report to/Rapport au :

Transportation Committee
Comité des transports

and Council / et au Conseil

October 8, 2013
8 octobre 2013

Submitted by/Soumis par: Marian Simulik, City Treasurer/Trésorière municipale

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CITY WIDE / À L'ÉCHELLE DE LA VILLE

Ref N°: ACS2013-CMR-FIN-0038

**SUBJECT: AFFORDABILITY OF THE TRANSPORTATION MASTER PLAN,
OTTAWA PEDESTRIAN PLAN AND OTTAWA CYCLING PLAN**

**OBJET: ABORDABILITÉ DU PLAN DIRECTEUR DES TRANSPORTS, DU
PLAN SUR LE CYCLISME ET DU PLAN DE LA CIRCULATION
PIÉTONNIÈRE D'OTTAWA**

REPORT RECOMMENDATIONS

That the Joint Transit Commission and Transportation Committee table this report and refer the following recommendation to the Transportation Committee meeting of November 15, 2013:

That the Transportation Committee recommends that City Council:

1. Direct the City Manager to take all steps necessary to seek a one third sharing formula with the Provincial and Federal levels of government for major transit capital projects, based on inflated (construction year) costs of \$975 million each to implement the next phase of the rail transit program as contemplated in the Transportation Master Plan.
2. Increase the contribution to capital for growth related projects in the 2014 budget by \$3 million in advance of the overall assessment of affordability of growth related projects that will be performed as part of the Development Charge background study in 2014.
3. Direct staff to prepare future capital budgets that respect the affordability limits and priority phasing of the projects identified in the proposed Transportation Master Plan.

RECOMMANDATIONS DU RAPPORT

Que la Commission du transport en commun et le Comité des transports déposent conjointement le présent rapport et soumettent la recommandation suivante à la réunion du Comité des transports du 15 novembre 2013 :

Que le Comité des transports recommande au Conseil municipal :

- 1. de demander au directeur municipal de prendre toutes les mesures nécessaires pour proposer la formule des trois tiers aux ordres de gouvernement fédéral et provincial, fondée sur des coûts en dollars courants (de l'année de construction) de 975 millions de dollars chacun, pour le partage du financement des grands projets d'immobilisations de transport en commun en vue de la mise en œuvre de la prochaine phase du programme de transport ferroviaire, conformément à ce qui a été prévu dans le Plan directeur des transports.**
- 2. d'accroître, en 2014, de 3 millions de dollars la contribution budgétaire aux dépenses d'immobilisations de projets connexes à la croissance avant la tenue de l'évaluation globale de l'abordabilité de ces projets prévue en 2014 dans le cadre de l'étude préliminaire sur les redevances d'aménagement;**
- 3. de demander au personnel de préparer les futurs budgets d'immobilisations qui restent dans les limites abordables et qui respectent l'ordre de priorité des projets désignés dans le Plan directeur des transports proposé.**

EXECUTIVE SUMMARY

This report discusses the affordability of the new Transportation Master Plan (TMP), Cycling Plan and Pedestrian plans, which cover the period 2014 to 2031. The report also looks at the future debt profile and capacity to fund transit projects in the period from 2031 to 2048 in order to assess the impact of the TMP recommendations on the future financial profile of the City.

Conservative assumptions were used in determining affordability so that Council and residents would have reasonable assurance that growth projects recommended for investment within the planning horizon could be funded within existing resources.

How much the City can afford to invest in new road, cycling and pedestrian networks was determined by looking at existing Council policies and existing revenue sources to establish an affordable envelope. Given that Council has approved infrastructure renewal as the most important priority for the use of existing and future tax supported capital dollars, the ability to increase tax funding for these modes is constrained by Council's current inflationary tax increase target. Council has also adopted a policy to

limit the increase in the City's debt load, further impacting the City's ability to fund growth projects. Development charge revenues were based on historical collections. These collections could be increased in the next Development Charge (DC) update if certain policies on exemptions and discounting are reviewed and reconsidered. After taking each of these factors into account, an affordable envelope was established and the road, cycling and pedestrian network was prioritized to arrive at the development of the "affordable" transportation networks.

The transit component of the TMP was assessed separately. The recommended Transit network is affordable contingent on a number of reasonable but important assumptions. Rail infrastructure growth requires continued support of senior governments as equal partners. Financing these projects from City sources alone is not financially sustainable. The requirement for each senior government is funding of \$975 million in construction year dollars (\$810 million in today's dollars) for the rail projects included in the TMP. This level of investment represents two thirds of total project costs which is reasonable given past commitments on transit funding and consistent with funding support provided for other recent transportation projects of this nature. The modelling has assumed that the construction of the TMP rail projects will occur during the period 2018 to 2022 and that senior government funding will be committed in those years. If this funding commitment is not secured or is delayed, projects will need to be deferred or phased in a different manner. This is a significant City building level of investment that will not be repeated in the subsequent years.

The transit affordability assessment also assumed that Council commits to increasing transit taxes and transit fares in line with the rate of inflation affecting transit costs. Last, the financial model assumes a higher level of transit development charges consistent with the City's expectation that changes to DC legislation are adopted by the Province. In order to ensure that transit development charges are maximized in the short term requires that DC legislation be amended to exclude the Confederation Line project from the historical service level cap and the 10% statutory reduction requirements.

Costs to pay for principal and interest on debt will increase during the TMP time frame to 2031 however, the City's 7.5% debt policy limit that caps the amount of taxation revenues that can be used to service debt, will be adhered to. Given the transit component of the TMP to 2031 proposes a significant and advanced investment in new Light Rail and Bus Rapid Transit initiatives, the City will need to limit its post 2031 investment in transit growth projects in order to retain debt at manageable levels. Debt servicing costs will remain well below the Provincial threshold of 25% of own source revenues throughout the period from 2014 to 2048.

RÉSUMÉ

Le présent rapport traite de l'abordabilité du nouveau Plan directeur des transports (PDT), du Plan sur le cyclisme et du Plan de la circulation piétonnière, qui couvrent la période s'étendant de 2014 à 2031. Il examine également le profil futur de la dette et la capacité de financer des projets de transport en commun au cours de la période s'étendant de 2031 à 2048 afin d'évaluer l'incidence des recommandations du PDT sur le profil financier futur de la Ville.

La détermination de l'abordabilité a été fondée sur des hypothèses prudentes. Ainsi, le Conseil et les résidents auront l'assurance raisonnable que les investissements recommandés dans des projets connexes à la croissance pour l'horizon de planification étudié s'inscriront dans les limites des ressources disponibles.

Pour calculer le montant que la Ville peut se permettre d'investir dans les nouveaux réseaux routiers, cyclables et piétonniers, on a examiné les politiques courantes du Conseil et les sources actuelles de revenus pour ensuite établir les limites d'une enveloppe abordable. Le Conseil a approuvé le renouvellement des infrastructures comme priorité absolue des budgets d'immobilisations actuels et futurs subventionnés par les impôts, mais la capacité d'augmenter le financement par l'impôt de ces réseaux est limitée par la cible actuelle de hausse de taxes établie par le Conseil en fonction du taux d'inflation. Le Conseil a également adopté une politique pour limiter le niveau d'endettement de la Ville, réduisant ainsi encore plus la capacité de la Ville de financer des projets connexes à la croissance. Le calcul des revenus tirés des redevances d'aménagement est fondé sur des données historiques relatives à la perception de ces redevances. Les montants calculés pourraient être revus à la hausse dans la prochaine mise à jour des redevances d'aménagement si certaines politiques sur les exemptions et les réductions sont examinées et revues. À la lumière de chacun de ces facteurs, les limites d'une enveloppe abordable ont été établies, et les réseaux routiers, cyclables et piétonniers ont été considérés comme prioritaires pour la mise en place de réseaux de transport « abordables ».

Le volet du PDT relatif au transport en commun a fait l'objet d'une évaluation distincte. Le réseau de transport en commun recommandé peut être abordable si l'on tient compte d'un certain nombre d'hypothèses raisonnables, mais importantes. La croissance des infrastructures ferroviaires exige un appui continu de la part des ordres supérieurs de gouvernement en tant que partenaires égaux. Le financement de ces projets de sources municipales seulement n'est pas viable. Le financement demandé aux ordres supérieurs de gouvernement est de 975 millions en dollars de l'année de construction (ce qui donne 810 millions en dollars courants) chacun pour les projets ferroviaires prévus dans le PDT. Ce niveau d'investissement représente les deux tiers des coûts des projets, ce qui est raisonnable compte tenu des engagements de financement antérieurs pris à l'égard du transport en commun et conforme à l'appui financier accordé à d'autres projets récents de même nature dans le secteur des transports.

Pour ce qui est de la modélisation, on a supposé que les travaux de construction des projets ferroviaires prévus dans le PDT auraient lieu pendant la période de financement

s'échelonnant de 2018 à 2022 et que les fonds d'origine provinciale ou fédérale seront accordés ces années-là. Si ces engagements financiers ne sont pas obtenus ou sont retardés, les projets devront être reportés ou mis en œuvre de manière différente. Il s'agit d'un important investissement municipal dans le secteur de la construction qui ne se répétera pas dans les années suivantes.

L'évaluation de l'abordabilité des projets de transport en commun suppose également que le Conseil s'engage à augmenter les taxes sur le transport en commun et les tarifs de transport en commun en fonction du taux d'inflation touchant les coûts dans ce secteur. Enfin, le modèle financier suppose des redevances d'aménagement plus élevées, conformes aux attentes de la Ville selon lesquelles les modifications proposées à la *Loi sur les redevances d'aménagement* seront adoptées par la province. Afin d'optimiser à court terme l'utilisation des fonds tirés des redevances d'aménagement applicables au transport en commun, il faut demander la modification de la *Loi sur les redevances d'aménagement* afin que le projet de la Ligne de la Confédération soit exempté de l'application du plafond fondé sur les niveaux historiques de service et des exigences de réduction de 10 % prévues par la loi.

Les frais à payer en capital et en intérêts sur la dette augmenteront pendant la période couverte par le PDT, jusqu'en 2031. Toutefois, la Ville devra respecter sa politique d'endettement de 7,5 %, qui limite le pourcentage des recettes générées par la taxe foncière qu'elle peut utiliser pour le service de la dette. Étant donné que le volet relatif au transport en commun du PDT jusqu'en 2031 propose une accélération des importants investissements prévus dans les nouvelles initiatives de train léger sur rail et de transport en commun rapide par autobus, la Ville devra limiter ses investissements pour la période postérieure à 2031 dans des projets connexes à la croissance du secteur du transport en commun afin de maintenir la dette à un niveau gérable. Les coûts du service de la dette demeureront bien en deçà du seuil provincial de 25 % des revenus que la Ville tire de ses propres sources pour la période s'étendant de 2014 à 2048.

BACKGROUND

The 2008 Transportation Master Plan (TMP) was presented without the benefit of an affordability assessment. That Plan identified \$5.1 billion of growth related transit works, and another \$2.1 billion in roads/pedestrian/cycling works to be undertaken over a 23 year period. Of that plan approximately \$2.2 billion of growth related transit projects and \$627 million of growth related roads/pedestrian/cycling works have been approved or undertaken.

While not in receipt of an affordability assessment at the time the 2008 TMP was adopted, Council has received updates to the Long Range Financial Plans (LRFP) which provide information on affordability and financial plans for various sub-sets of the City's asset base, including works identified in the TMP. During this term of Council, several plans have been brought forward and adopted. These reports set the context for the current assessment of the affordability of the Transportation Master Plan.

Specifically, the LRFP (Tax Supported Capital) informs the affordability assessment on the non-transit (roads) components of the TMP, as well as the pedestrian and cycling plans. The LRFP (Transit) report and update inform the affordability of the rapid transit and transit components of the TMP. Inherent to a discussion of affordability is the assessment of the City's total debt position and future outlook. This has been discussed in all previous long range financial plans and is updated in this report. A summary of the reports is provided below.

Long Range Financial Plan Transit (July 2011) (ACS2011-CMR-FIN-0039):

An affordability model for transit projects was prepared which looked at the cost of the transit capital plan for the next 37 years to ensure the resources are in place to not only construct but run the system envisioned in the 2008 TMP. The report concluded that the City could afford to invest and operate the transit system as detailed in the 2008 TMP, including the first increment of the Light Rail Transit system. The analysis showed that the plan was affordable with continued contributions from senior levels of government and with transit taxes and fares increasing at the rate of transit's inflation.

Design, Build, Finance and Maintenance of Ottawa's Light Rail Transit (OLRT) Project (December 2012) (ACS2012-ICS-RIO-0004):

In preparation for the consideration of the award of the contract for the Confederation Line, the July 2011 Transit Affordability Model was updated in November 2012 to reflect the financial requirements associated with the award of the OLRT contract. All other assumptions regarding revenue sources and post OLRT capital project requirements remained constant. The update of the plan also looked at the total debt servicing requirements for the City. The update showed that the proponent's delivery model had a positive impact on affordability, primarily as a result of reduced energy and lifecycle costs. The report concluded that the City had the financial capacity to undertake the project. The report indicated that the transit affordability model would be updated in the future to reflect Council's completed review of the Transportation Master Plan.

Long Range Financial Plan IV – Tax Supported Capital (October 2012) (ACS2012-CMR-FIN-0039):

The objective of the report was to present a ten year outlook of the city-wide tax supported capital requirements for the delivery of all City tax supported services, excluding transit. In particular, the report focused on the funding strategies required to provide for the renewal and maintenance of the City's existing asset base, as discussed in the *Comprehensive Asset Management Program* report. In the LRFP IV Council adopted the following two recommendations:

“That the use of debt for tax supported capital works continue to correspond to the amount of debt retiring within the year in accordance with Council's adopted target to limit debt service for tax supported debt to 7.5% of own source revenues; ... and ,

“Council's priorities for the use of any future federal or provincial infrastructure funding programs be for the renewal of existing assets and transit related projects included in the Transportation Master Plan.”

The report also presented a consolidated ten year outlook of the City's fiscal and debt situation taking into account all of the long range plans adopted during the term.

The LRFP IV report did not focus on the City funds required to support the growth related capital program, initially identified in the TMP, and then included within the DC Background study. As the next DC by-law update is in 2014, it was anticipated that any difference in the City funding required for growth works from what was identified in LRFP IV would be identified and funding strategies presented at that time. The TMP pre-empts a portion of that assessment, as it deals with roughly 50% of the growth works funded from development charges.

The transit financial model used in 2011 and updated in 2012 has been significantly expanded with the assistance of PricewaterhouseCoopers LLP. Inputs to the model have been updated in consultation with Transit Services, Transportation Planning, Infrastructure Services and Finance. The model is both comprehensive and complex, allowing the impacts of single or multiple assumptions to be assessed. Assumptions in the model continue to be generally conservative in that increases in revenue are constrained while increases in cost are not.

DISCUSSION

The June 6, 2012 TMP Statement of Work report to Transportation Committee identified that the planning exercise would address affordability by prioritizing the capital investments and identify incremental operating costs in future years' budgets to better inform the Committee and Council of the financial implications of the Plan. Past work on the Transit Long Range Financial Plan and affordability model in addition to Capital Investment forecasts related to Transportation would inform the affordability analysis. Putting an affordability lens on the TMP is significant in its very nature as it applies a fiscal discipline well in advance of establishing the development charge or the approval of yearly capital budgets.

Affordability, as considered in the context of this review can be defined as: using conservative assumptions, there is adequate funding to deliver the service and provide the related infrastructure from existing sources.

In assessing what is affordable the following parameters were assumed :

- No new revenue sources would be made available
- Taxation and user fees will not increase by more than the rate of inflation.
- Fleet investment and service plans provide sufficient capacity for ridership based on population, employment and modal share growth projections
- Project cost estimates will include appropriate provisions for contingencies and will inflate over time as per the City's Construction Price Index.
- Revenue from development charges will be collected as per the Development Charge Background Study and reflect Council's collection policies.
- Major transit project costs will be shared equally with senior levels of government in line with previously committed levels (cost inflated)
- Debt servicing will not exceed the city and provincial limits. New incremental tax supported debt will be minimized.
- Priority will be given to funding renewal projects to maintain assets in a good state of repair.

These assumptions are conservative in nature to provide assurance as to the level of funding available for investment within the planning horizon.

The results of the affordability analysis are shown in Table 1, which highlight the capital funding available for each of the main infrastructure components and forms the basis for the development of the “affordable” transportation networks.

Table 1 – Affordable Growth Related Transportation Funding (2014-2031)

Investments (2014–2031)	Capital (2013 \$)
Rapid Transit and Transit Priority Network	\$2,995M
Roads Network	724M
Cycling Standalone Projects	70M
Pedestrian Standalone Projects	26M
Multi-Use Pathway Structures ¹	40M
Various network modifications, intersection control measures, studies and programs	140M
TOTAL	\$3,995M

¹ Includes footbridges for both pedestrian and cycling networks

PART 1 – AFFORDABILITY OF THE ROAD, PEDESTRIAN AND CYCLING COMPONENTS

Unlike transit capital, road, pedestrian and cycling capital works compete with other city wide tax supported service areas such as recreation facilities, fire stations and parks for the funds generated on the city wide tax levy. This fungibility does not allow a stand alone financial model to be constructed for these services.

How much the City can afford to invest in new road, cycling and pedestrian networks was determined by looking at existing Council policies and existing revenue sources. The first limitation on the funds available results from Council establishing infrastructure renewal as the most important priority for the use of existing and future tax supported capital dollars and approving a strategy to increase that funding in the next ten years. LRFV IV identified an envelope of approximately \$11 million per year to fund the city share of all city wide tax supported growth works and a continued level of strategic capital investment of which \$2.75 million per year is currently provided for cycling and pedestrian stand alone capital projects. The envelope values are stated in 2013\$ as have been all capital project estimates.

The second limitation is Council’s debt policies adopted in the October 2012 update of the tax supported Long Range Financial Plan. Under that plan, Council approved

limiting the issuance of new debt authority to fund city-wide supported capital projects to the amount of debt that retires in the year. This means there is no ability to add incremental debt to increase funding capacity.

Finally, with respect to development charge revenues, the 5 year historical average of roads development charge collections was used to establish what may be achievable in the future. The level of development charges for the pedestrian and cycling plans were increased to reflect what will be proposed in the next development charge by-law update. This review of development charge receipts has highlighted a need to update existing policies governing non-statutory exemptions, discounting, and transition in the next DC bylaw. These are discussed in the next section of this report.

The following table shows the resulting affordability limits for roads, cycling and pedestrian projects for each phase of the TMP.

Table 2 – Affordable Funding envelopes by Phase

	Phase 1	Phase 2	Phase 3	Total	DC %	DC Share \$	City Tax \$
	2014-2019	2020-2025	2026-2031				
Gross Spend - 2013 \$							
New Roads	\$ 240	\$ 240	\$ 244	724	85%	\$ 615	\$ 109
Other - (EA,TDM, ICM, NM) ^[1]	47	47	46	140	85%	105	35
	\$ 287	\$ 287	\$ 290	864	85%	\$ 721	\$ 143
Pedestrian Plan	\$ 8.25	\$ 9	\$ 9	\$ 26.25	50% ^[2]	\$ 13	\$ 13.35
Cycling Plan	\$ 22	\$ 24	\$ 24	\$ 70	50% ^[2]	\$ 34	\$ 36
Structures	\$ 13	\$ 13	\$ 14	\$ 40	50% ^[2]	\$ 20	\$ 20
	\$ 330	\$ 333	\$ 337	\$ 1,000		\$ 788	\$ 212

Notes:

[1] Environmental Assessment studies, Transportation Demand Management, Intersection Control Measures, Network Modification, etc

[2] Effective with 2014 DC By-Law

The City's capacity to provide tax supported funding to the growth related program remains fairly constant for each phase within the TMP and as a result there is no ability to advance funding from later phases into the earlier phase. The transit section of this report discusses constraints on the timing of transit investments. Consequently, this report recommends that staff be directed to prepare future capital budgets that respect the affordability limits and priority phasing of the projects identified in the proposed Transportation Master Plan.

An allocation of City tax funding of \$1.5 million was also assumed within the affordability envelope for incremental lifecycle associated with the recommended growth investment above. This will ensure that new assets will be retained in a state of good repair post construction. Incremental operating and maintenance costs regarding these new assets

will be provided in future annual operating budgets. When fully constructed these new assets will increase annual operating and maintenance costs by \$3 million (\$2013) per year. It should be noted that the operating cost impacts of the TMP growth related works is less than the operating budget impacts associated with costs the City will incur to maintain the infrastructure that is transferred to the City through the development process. Currently, road lane kilometres received by the City each year add approximately \$400 thousand to annual operations and maintenance costs. When viewed over the same 18 year timeframe as the TMP, this is over 2.5 times the amount of operating and maintenance costs that will be added from all TMP road works.

Table 3 – Incremental Annual Operating & Maintenance resulting from Affordable TMP Transit Investment (2014-2031)

TMP Affordable Network	Lane Kilometers	Operating & Maintenance (\$2013 '000)
Roads	159	\$ 2,860
Cycling, Structures	121	94
Pedestrian	70	375
		<u>\$ 3,329</u>

This report also recommends that Council increase the contribution to capital for growth related projects in the 2014 budget by \$3 million in advance of the overall assessment of affordability of growth related projects that will be performed as part of the Development Charge Study in 2014. These additional funds will provide some flexibility to advance selected works within each phase, but will also create some financial capacity in the event of a successful appeal of the revised development charges by-law.

PART 2 – AFFORDABILITY OF THE TRANSIT COMPONENT AND FUTURE OUTLOOK FOR THE DEBT PROFILE

The starting point in determining what could be affordable for the transit component of the TMP was the total dollar value of transit initiatives that were included in the previous transit affordability updates which were based on the 2008 TMP. Capital project priorities were then submitted within these initial envelopes and a detailed financial analysis was then conducted.

The transit financial model used previously in 2011 and 2012 has been updated, with the assistance of PricewaterhouseCoopers LLP, to reflect the transit initiatives contemplated in the TMP update and with the latest assumptions regarding key drivers. The model is both comprehensive and complex, allowing the impacts of single or multiple assumptions to be assessed. Assessing affordability includes consideration of operating, maintenance and lifecycle costs, revised capital project cost estimates, and funding sources applicable to each category of investment. This was particularly important in the case of Transit where changes in service or technology can significantly alter future operating and lifecycle expenditures.

All revenue and cost assumptions were revisited and the City's criteria regarding the affordability of transit were reconfirmed and tested through a series of sensitivity analyses. Assumptions in the model continue to be generally conservative in that increases in revenue are constrained while increases in cost are not.

The proposed transit plan has advanced the investment in rail, increasing the level of service and system capacity, and includes a series of priority measures within the Greenbelt. Rapid transit initiatives such as the Bayshore-Moodie Transitway are also recommended for investment with the assumption that these will be fully funded by the City without senior government assistance.

The affordable TMP Transit investment priorities are outlined in the following table.

Table 4 – Affordable TMP Transit Investment (2014-2031)

Summary of Major Capital Items		Senior Government Contribution
(\$ 2013 millions)	Cost	
Light Rail Transit (LRT)		
O-Train Extension	\$ 99	✓
LRT - Tunney's Pasture to Baseline	980	✓
LRT - Lincoln Fields to Bayshore	396	✓
Orleans LRT	500	✓
Total Infrastructure	\$1,975	
Vehicles	453	✓
Storage Facility	50	
Total LRT Including Vehicles	\$2,478	
Bus Rapid Transit (BRT)		
Transitway - Bayshore to Moodie	76	
Baseline Transit Corridor	131	
Transitway - Eagleson to Kanata North	110	
Total BRT	\$ 317	
Transit Priority Projects	\$ 200	
Total TMP Transit Investment	\$ 2,995	
Normal Transit System Growth (vehicles, technology, etc)	\$ 558	
Renewal	\$ 1,542	
Total Transit Capital	\$ 5,095	

The table above does not include the \$2.1 Billion Confederation Line project approved in 2012 and currently under construction.

Overall the transit plan is affordable, with the following conclusions:

- Affordability rests on the City's ability to secure 2/3 funding from Senior Governments for the proposed rail infrastructure investment, and with continued collection of development charge based on revised provincial policies regarding transit level of service calculations and on existing growth assumptions.
- The plan will see continued but manageable debt levels if Council adheres to spending plans that are within the broad spending envelopes indicated in this analysis for the post 2031 time period. The period leading up to 2031 will see

the city aggressively advance the rapid transit network, a level of investment which cannot be repeated in the subsequent 10 to 15 years.

How does the City define Affordability with respect to transit?

In order to come to a conclusion as to whether the City can afford the transit capital plan identified in the TMP, the meaning of affordable had to be defined. As a public service affordability has to be considered from the perspective of current and future taxpayers and transit riders. Consistent with the approach adopted by Council during this term, the affordability parameter with respect to taxation and transit fares was defined as:

- Transit taxes and transit fares will increase in line with the transit rate of inflation.

It is important to note that the same inflation assumptions have been applied to both costs and revenues in the model. The rate of inflation used in the model is a proxy for whatever the real rate of inflation is in the future. To the extent that actual inflation is different, the model will still be valid, given that both the costs and revenues will vary at the same rate.

While significant Transit funding sources (i.e. transit specific tax levy, development charges raised for Transit and federal and provincial gas taxes) are not accessible by other City services, debt as a source of capital funding is measured on a City-wide basis. The City has a provincially imposed limit on the total debt that can be issued and Council has also set other limits on debt, so each these parameter need to be met as a criteria for affordability. In addition the use of debt needs to be controlled so that future generations are not paying for assets that are no longer providing a benefit. The parameters for affordability with respect to debt were therefore defined as:

- The total City cost of servicing debt will not exceed the annual Provincial Debt Servicing limit of 25% of own source revenues.
- The amount of debt servicing funded from transit taxation will never exceed 7.5% of City own source revenue.
- There will be sufficient revenues generated from transit operations to service both debt obligations and operating expenses.

Revenue Sources for Transit Capital

Additional permanent revenues from federal gas tax are now available based on the Federal government's commitment to index federal gas tax funds.

Development charge revenue assumptions are based on the City's ability to secure changes to the Development Charges Act. These assumptions are more conservative than used previously as the City is asking for changes that affect just the rapid transit component of transit service, rather than changes that would apply to the entire transit service network.

Revenues from operations which are available to fund capital (PAYG) have been revised based on updated ridership growth projections.

Senior Government Support (Provincial and Federal funding):

The transition from bus to light rail or subway based transit can be very capital intensive and is a transition that occurs only once in the development of a municipality. In effect the municipality reaches a point where further productivity gains require a transition with higher up front capital costs to enjoy ongoing lower or more predictable operating costs. As has been the case for the last 20 years, the planning for major civil works and transit expansion provides for Canada and Ontario to partner with the City to fund these initiatives at a rate of 33% each of the projected construction year costs.

Assumed in the model is a combined 66% funding from the senior levels of government on all new rail infrastructure investment including new vehicles upon conversion to rail. This amounts to \$975M in new contributions from each government partner based on inflated (construction year) costs (\$810 million in today's dollars). This level of funding is considered reasonable given past commitments on transit funding and consistent with funding support provided for other recent transportation projects of this nature.

The modelling has assumed that the construction of the TMP rail projects will occur during the period 2018 to 2022 and that senior government funding will be committed in those years. If this funding commitment is not secured or is delayed, projects will need to be deferred or phased in a different manner. This is a significant City building level of investment that will not be repeated in the subsequent years.

Given the cost of the other rapid transit initiatives being proposed, assuming senior level government funding on such projects as the Transitway from Bayshore to Moodie and Eagleson to Kanata North, and the Baseline Transit Corridor would result in contributions beyond anticipated levels. Therefore the model uses City sources to fully fund these projects. The model includes senior funding toward costs incurred for the Confederation Line during construction, in accordance with signed funding agreements.

Development Charge Revenues:

The City collects development charges (DC's) to pay for the growth-related capital investments required to service new development. Council has over the years repeatedly endorsed policy statements that growth is to pay for itself. Public Transit is one of 15 service categories that are included in the overall development charge. Currently the Roads and Related Services component of the charge is approximately double that collected for Public Transit as a result of restrictions within the legislation. Under existing regulations the current DC by-law cannot include the full cost of the new light rail system as future investment in this service is limited to a ten year historical average and requires the City to contribute 10% of the growth-related costs. As a result, the Public Transit component does not generate sufficient funds to offset the full cost of the transition from bus rapid transit to light rail.

The City is pursuing a change in the DC legislation. On June 25, 2013 a letter was sent to the Minister of Finance and the Minister of Municipal Affairs and Housing, to ask for the exclusion of the Confederation Line project from the historical service level and 10% statutory reduction requirements when calculating the development charge. This is the

amendment that was provided to the Region of York in 2006 for their portion of the cost of the subway extension and, therefore, a precedent was established. If this legislative revision had been available during the preparation of the 2009 development charges update, the City would be able to recover an additional \$67.5 million in Public Transit growth-related revenues. The model assumes the City will be successful in securing this legislative change.

There are also other Council policies that need to be reviewed during the preparation of the next DC by-law update in order to ensure that growth pays for itself. While these policies do not impact on the value of the charge they impact the amount of revenue collected. Examples of policy changes to be reviewed include the following:

- Policy decisions around the discounting of the non-residential charge for the Public Transit component;
- Policy decisions around transition and phasing in of the new charge which reduce Public Transit collections in the first few years of the by-law;
- Policy decisions concerning the list of non-statutory exemptions and reductions;
- Policy decisions on whether certain capital projects be moved from the Public Transit service component of the charge to the Roads and Related Services category component to better align costs with road network investments.

The City may need to consider deferring projects, or increasing others sources of revenue if projected growth is significantly below what will be assumed in the Background Study. Offsetting the loss of revenues by amending policies will help to preserve the growth-related component of funding for the Public Transit program.

Federal Gas Tax Revenues:

The Federal Government's Economic Action Plan 2013 proposed indexing the revenues available under the Gas Tax Fund. The Government of Canada announced that starting in 2014 the Gas Tax Fund would be indexed at 2% per year. *Economic Action Plan 2013* also expanded the categories of costs to which gas tax funds could be used to such categories as brownfield redevelopment, culture and recreation. Council's existing policy is to direct federal gas tax funds solely to transit capital projects so the additional revenues from indexing provides funds for the transit capital program.

Capital Cost Requirements

The 2008 Transportation Master Plan (TMP) identified a variety of bus rapid transit (BRT), light rapid transit (LRT) and transit priority capital projects up to 2031. The model has been updated to reflect the list of projects in the current TMP update. The model also includes all other transit capital requirements for growth and renewal of existing conventional and Para Transpo assets.

Capital costs have been updated to include appropriate levels of contingencies based on the level of project design. The model assumes that future phases of light rail will be procured under a P3 model, similar to the model employed with the award of the Confederation Line Contract. While this adds incremental financing costs to the model,

it is expected that this form of procurement will be successful in achieving risk transfer and ensure that projects are delivered on time and on budget.

While the TMP identifies projects up to 2031 the modelling was extended beyond 2031 in order to assess the future capacity for funding growth projects, while maintaining the same affordability parameters. The results show that the City will not be able to repeat the same level of investment in the post 2031 period, as it will in the period up to 2031. The \$2.8 billion level of investment for rapid transit infrastructure up to 2031 will decline to \$500 million in the period from 2032 to 2048.

Alternative Revenue Sources

Alternative revenue sources have not been considered at this time in extending the affordable funding envelopes for Transit, Roads, Pedestrian and Cycling facilities.

The affordability discussion is centred on using realistic and probable funding streams in order to prioritize investment decisions. While the previous TMP discussed various options such as road user charges including tolls, municipal fuel surcharges or registration fees the City has no ability to implement any of these. In the past Council has elected not to request this ability from the Province as they are viewed by many as an indirect form of taxation.

The Province is currently reviewing a number of options to fund Transportation requirements in the GTA. These may broaden the options available to other municipalities and prove to be beneficial in meeting the demands for new infrastructure. The City will monitor these developments and bring forward any allowable funding tools to Council for consideration.

Future Debt Profile

The City's current debt policies assist the City in maintaining its Aaa credit rating. Ottawa's commitment to long-term planning, significant use of cash to pay for capital, and controls on new tax-supported borrowing helped the city maintain stable debt metrics in recent years. Rating agencies have assessed that the City's debt burden remains manageable and is supported by a strong liquidity position through its investment and cash balances. Credit rating agencies will want to see that the City's debt burden does not increase significantly beyond levels previously anticipated. They will also want to ensure that the City continues to focus its attention on sound financial management including long range financial planning.

Consequently, this report discusses the future debt profile and compares it to the work previously undertaken in the 2011 and 2012 long range financial planning exercises. The need to maintain future debt profiles at levels previously anticipated factors greatly in the City's affordability parameters and in the fiscal capacity in the post 2031 period.

The debt affordability parameters are that debt servicing will not exceed the city and provincial limits and that new incremental tax supported debt will be minimized. This second constraint is based on Council's approval of a recommendation in the October

2012 Long Range Financial Plan which covers the period to the year 2022. The approved policy for the next nine years is that the use of debt for tax supported capital works (non transit component) continue to correspond to the amount of debt retiring within the year.

The key criteria for assessing debt are as follows:

Debt servicing limits – Province - Long-term debt for a municipality is restricted by the Municipal Act. Long term debt can only be used to fund capital works, and the City is limited in how much debt servicing (repayment of principle and interest) it can enter into by the provincially established Annual Debt Servicing Limit. The annual debt servicing limit is 25% of own source revenues, which is defined as all revenues other than those provided by the senior levels of government or from the value of developer contributed assets. The December 2012 transit affordability update, which took into account the private sector debt associated with the Confederation Line, indicated that, after taking into account the financial obligations associated with the Confederation Line procurement, as well as the financing required for previously authorized and unissued debt, an updated debt and obligation limit showed that the City still has \$3.4 billion in remaining debt capacity available within the 25% debt servicing provincial limit.

Debt servicing limits – City Policy - Council has established a secondary set of criteria to ensure that debt is well managed in the City. Council's concern is focused on the amount of debt that is serviced from taxes and user fees it collects. Council has established debt limits stating that principal and interest payments for tax supported debt are not to exceed 7.5% of the City's own source revenue, and principal and interest on water and sewer rate supported debt will be limited to no more than 15% of rate revenues.

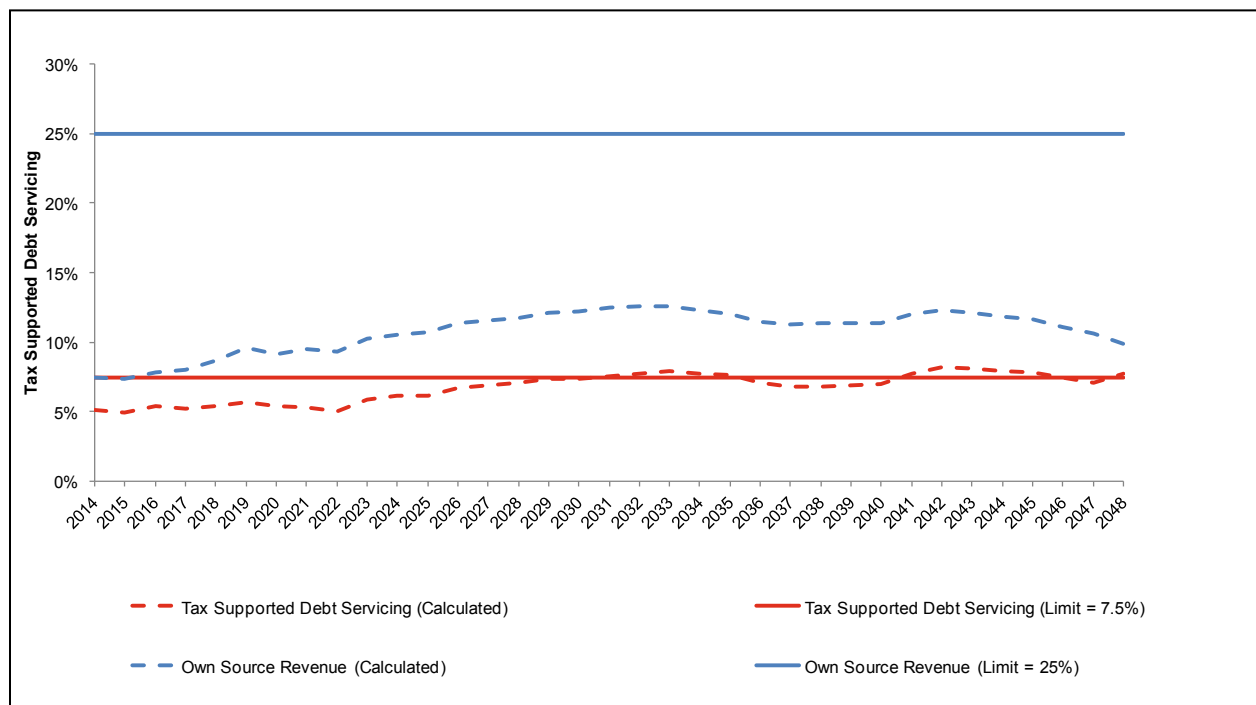
The difference between the Provincial and City limit values are that the City's limits solely consider debt repaid by taxes whereas the provincial limit also considers debt repaid by development charges, and gas taxes.

In order to assess against the provincial limits, the debt servicing requirements identified in the transit cost model has been added to an estimate of the total amount of City debt servicing required for all of the City's remaining capital requirements. The estimate for other City debt servicing was developed based on the debt service projections which were included in the December 2012, 10 year tax supported LRFP, and whereby Council approved that there would be no new incremental debt funded from the tax rate to support the renewal of roads and other City infrastructure. This Council policy has a positive impact on the future debt profile.

Costs to pay for principal and interest on debt will increase during the TMP time frame to 2031 however, the City's 7.5% debt policy limit that caps the amount of taxation and user fee revenues that can be used to service debt, will be adhered to. Total debt servicing costs for all types of debt reaches a maximum of 12.6% of own source revenues compared to the 25% provincial limit. Given the transit component of the TMP to 2031 proposes a significant and advanced investment in new Light Rail and Bus

Rapid Transit initiatives, the City will need to limit its post 2031 investment in transit growth projects in order to retain debt at these manageable levels.

Chart 1 – Debt Servicing Limits



Sensitivity Analysis

In order to understand the impact of changes to the assumptions PwC conducted numerous sensitivity scenarios where one or more assumptions were changed. The results of this analysis indicate a number of fundamental requirements for transit to remain affordable. These include:

Affordability of the transit plan is dependent on:

1. Attaining Senior Government funding for 2/3 of project costs
2. Transit Fares and taxes rising with the rate of inflation of transit costs
3. Controlling cost pressures in the period beyond 2031
4. Attaining projected DC increases

Necessity of senior government funding for transit – Ongoing gas tax funding and senior government grants for major infrastructure projects are required in order to make this plan affordable. In the event of major withdrawal of support by senior orders of government for infrastructure, every municipal government across the country would have to fundamentally reassess its capital plans. As previously discussed, the continued support of each senior government at a one third share of construction year dollars is required for major rail capital projects.

Alignment of rate increases with inflation – Another significant finding is where inflation rates increase and taxes and fares are not adjusted accordingly the plan becomes unaffordable. This is a decision that rests with Council every year at budget time.

The importance of controlling cost pressures in the period beyond 2031 have been addressed previously in this document, as has the need to attain projected development charge revenues.

Reductions in the population forecast from those assumed would impact revenues from assessment growth, ridership and development charge collections. Correspondingly costs would also reduce as service hours would not increase and major expansions of the system would not be required in the timeframe envisioned. In general, a decrease to the population forecast was considered to have a neutral impact on the financial model.

RURAL IMPLICATIONS

The updates to the TMP, OPP and the OCP are city-wide and have implications for rural residents and businesses.

CONSULTATION

Consultation is outlined in the staff report on the Transportation Master Plan.

LEGAL IMPLICATIONS

There are no legal impediments to implementing the recommendations as outlined in the report.

RISK MANAGEMENT IMPLICATIONS

There are no risk implications associated with the recommendations in this report.

FINANCIAL IMPLICATIONS

Financial implications are discussed in the report.

ACCESSIBILITY IMPACTS

Costs for improvements in accessibility have been considered in the financial costing of the projects included in the TMP.

ENVIRONMENTAL IMPLICATIONS

This section is OPTIONAL. If applicable, this section must explain how the report recommendations will potentially impact land, air and water quality, public health, green space, protected or environmentally sensitive areas, trees, habitat, resource use, energy use and greenhouse gas emissions. It should also indicate compliance with

City, Provincial and Federal environmental policies, standards, regulations and legislation.

TECHNOLOGY IMPLICATIONS

There are no technological implications associated with the recommendations in this report.

TERM OF COUNCIL PRIORITIES

The work summarized in this report is supportive of the following Term of Council Priority:

- FS1 - Align strategic priorities to Council's tax and user fee targets
- FS2 - Maintain and enhance the City's financial position
- TM1 - Ensure sustainable transit services: Offer reliable travel options at the lowest possible cost and in a financially and operationally sustainable way.
- TM3 - Provide infrastructure to support mobility choices
- GP3 - Make sustainable choices

DISPOSITION

Staff will consider the recommendations in this report when developing future years' budgets and during the review of the development charges.

FINANCE AND ECONOMIC
DEVELOPMENT COMMITTEE
REPORT 25
10 OCTOBER 2012

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COMITÉ DES FINANCES ET DU
DÉVELOPPEMENT ÉCONOMIQUE
RAPPORT 25
LE 10 OCTOBRE 2012

Report to/Rapport au :

Finance and Economic Development Committee
Comité des finances et du développement économique

and Council / et au Conseil

September 25, 2012
le 25 septembre 2012

Submitted by/Soumis par : Marian Simulik, City Treasurer/Trésorière municipale

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CITY WIDE / À L'ÉCHELLE DE LA VILLE

Ref N°: ACS2012-CMR-FIN-0039

SUBJECT: LONG RANGE FINANCIAL PLAN IV - TAX SUPPORTED CAPITAL

**OBJET: PLAN FINANCIER À LONG TERME IV – IMMOBILISATIONS
FINANCÉES PAR LES TAXES**

REPORT RECOMMENDATIONS

That the Finance and Economic Development Committee recommend that Council approve that the existing debt policies be continued while providing the required investment to maintain City assets in a state of good repair, and that in order to address the funding target as recommended in the *Comprehensive Asset Management Program* report, the following funding strategies be approved for consideration as part of future budgets:

1. That the use of debt for tax supported capital works continue to correspond to the amount of debt retiring within the year in accordance with Council's adopted target to limit debt service for tax supported debt to 7.5% of own source revenues;
2. To ensure capital funding is maintained and increased, starting in the 2013 budget year, the annual contribution from taxation for capital projects be increased by inflation (Construction Price Index) and by an additional \$5.4 million per year for both the renewal of existing assets and the increase in the asset base, as a priority within Council's approved tax targets;
3. Starting in the 2015 budget year, the portion of the contribution to capital used

to fund capital projects classified as strategic initiatives (new capital works) be maintained at \$20 million per year and that priority be given, after the completion of the “Service Ottawa” project, to infrastructure investment;

4. Starting in the 2015 budget year, the enhancement component of any capital renewal project be identified and approved separately;
5. That the City of Ottawa Endowment Fund be maintained at \$200 million and any excess continue to be directed to fund the capital program; and
6. That Council’s priorities for the use of any future federal or provincial infrastructure funding programs be for the renewal of existing assets and transit related projects included in the Transportation Master Plan.

RECOMMANDATIONS DU RAPPORT

Que le Comité des finances et du développement économique approuve de poursuivre les politiques actuelles en matière de dette, tout en investissant les fonds nécessaires pour permettre à la Ville de maintenir ses immobilisations en bon état, et que, afin de tenir compte de l’objectif de financement recommandé dans le rapport sur le programme de gestion intégrée des actifs, les stratégies de financement suivantes soient approuvées pour examen dans le cadre des futurs budgets :

1. Que les dettes découlant des travaux d’immobilisations financés par les taxes continuent de correspondre aux dettes qui seront acquittées cette année-là, conformément à l’objectif du Conseil de limiter le service de la dette financée par les taxes à 7,5 % des recettes municipales;
2. Afin d’assurer le maintien et même l’augmentation du financement des immobilisations durant l’exercice budgétaire de 2013, que la contribution annuelle des recettes fiscales aux projets d’immobilisations soit augmentée en fonction de l’inflation (selon l’indice des prix de la construction) et de 5,4 millions de dollars supplémentaires par année, pour le renouvellement des infrastructures existantes et la construction de nouvelles infrastructures, et que cette mesure soit jugée prioritaire parmi les objectifs en matière de taxation approuvés par le Conseil;
3. Qu’à compter de l’exercice budgétaire 2015, la proportion des fonds réservés aux immobilisations utilisés pour financer les projets désignés comme initiatives stratégiques (nouveaux travaux d’immobilisations) soit maintenue à 20 millions de dollars par année et que la priorité soit accordée, après la réalisation du projet *Service Ottawa*, à l’investissement dans l’infrastructure;

4. **Qu'à compter de l'exercice budgétaire de 2015, le volet « amélioration » des projets de renouvellement des immobilisations soit établi et approuvé séparément;**
5. **Que le fonds de dotation de la Ville d'Ottawa soit maintenu à 200 millions de dollars et que tout excédent continue de servir au financement du programme d'immobilisations;**
6. **Que les priorités du Conseil concernant tout futur programme fédéral ou provincial de financement des infrastructures soient le renouvellement des immobilisations existantes et les projets de transport en commun compris dans le Plan directeur des transports.**

EXECUTIVE SUMMARY

Consistent with Council's strategic plan, and in keeping with sound financial planning practices, this report establishes a long range financial plan (LRFP) for property tax supported capital investment needs with a focus on funding strategies that are required to provide for the renewal and maintenance of the City's existing asset base in a state of good repair. This is a companion report to the *Comprehensive Asset Management Program* which proposes an asset management program and policy that applies the right intervention, on the right asset, at the right time in a manner that considers affordability and risk.

Budget 2012 took action to accelerate capital spending, moving forward several years of planned capital rehabilitation so that it is accomplished over the next three years. As part of Budget 2012 Council approved the *Ottawa on the Move* initiative to address the need to increase capital renewal of City assets for the remainder of this term of Council and takes advantage of the historically low borrowing rates. Consequently, the majority of capital funding strategies discussed in this report focus on the strategies needed to support infrastructure renewal starting in 2015.

Current capital budgets and forecasts show that the City will spend approximately \$80 million per year on the renewal of the tax supported assets of roads, bridges, buildings and parks. The *Comprehensive Asset Management Program* report identifies a need to increase the tax supported funding for renewal of these assets to a level of \$165 million per year by the year 2022.

The principles guiding the financing strategies presented in this report are as follows:

- Maintain Council's approved conservative debt strategy and enforce the limits on principal and interest expenses at 7.5% of annual revenues to keep debt low and well below the actual borrowing capacity of the city;
- The target annual funding level required to maintain the existing road, bridge, building and park assets in a good state of repair of \$165 million should be achieved by the end of the 10 year planning period ;

- Tax funding for renewal at the good state of repair level should take priority over new or enhanced capital and operating budget requirements;
- Senior Governments should provide for a permanent source of funding to assist municipalities with infrastructure renewal;
- Incremental tax increases required to support any capital renewal funding gaps will only be required if senior governments fail to provide permanent funding to assist municipalities with funding infrastructure renewal needs.

A funding strategy to achieve the \$165 million (in 2012 dollars) targeted annual tax supported funding level for the renewal of the assets in the Comprehensive Asset Management Strategy by the year 2022 requires the following:

- \$80 million already provided for in existing capital budget forecasts be maintained;
- \$45 million cumulative (\$4.5 M per year) from within Council's tax target, added to support capital asset renewal for existing assets. In addition \$1 million on a yearly basis be added to account for growth in the asset base;
- \$15 million per year starting in 2015 in incremental funding for the renewal program by redirecting funding that was allocated to the capital envelope for strategic initiatives;
- \$25 million in permanent annual funding to be secured from senior governments through their Infrastructure Funding plans. In the absence of such new funding, a dedicated infrastructure tax levy equal to a one half of one percent increase to the tax levy starting in 2016 would achieve the required funding level by 2022. Alternatively, a more gradual implementation of an infrastructure levy implemented at the rate of one quarter of one percent would achieve the required funding level by 2024. Should senior governments fail to come to the table, this levy could be applied or offset through further, yet to be identified, reductions in spending in other areas of city operations.

This is the final report in a series of Long Range plan updates. During the past year, Council has considered various reports regarding the funding needs and strategies for the provision of municipal services over the long term. With these strategies, Ottawa will be able to maintain its critical transportation, water and wastewater infrastructure. At the same time, the City will have the financial capacity to undertake a major change in how it delivers transit services through the light rail transit project. The *Ottawa on the Move* project will provide for new and renewed infrastructure in advance of the start of Light Rail construction.

Ottawa is in a strong financial position with relatively low debt burden compared to other major Canadian municipalities. The City's debt is currently \$1.4 Billion for assets purchased or built at a cost of \$15 Billion. This is the equivalent of having a \$30,000 mortgage on a \$300,000 home. The City has been able to increase the amount of debt issued while not significantly increasing the amount required for debt servicing by matching the term of the debt to the life of the asset and as a result of declining interest

rates. In the year 2000 when the issued debt was \$400 million, the cost of debt on the average tax bill was \$162, while in 2012 the amount is \$174. With fixed interest rates the City is not vulnerable to future interest rate increases on the debt already issued.

In the municipal context the most significant measure for debt is how much of the City's budget is required to repay the debt, and will that constrain future budgets. Council has adopted limits on debt servicing that are more restrictive than those established by the Province. Currently 5.3% of the City's annual own source revenues are used to pay for interest and principal on debt, significantly below Council's 7.5% limit and far below the province's limits on total debt allowed. Future projections show that debt servicing will be maintained at manageable levels. In 2022, own source debt servicing will be maintained under 7.5%. Total debt servicing will remain under 10%, less than half the limit applied under provincial rules. As the City grows, the total debt issued will remain far below the debt limit restrictions imposed by the Province and by the City. At the end of 2011 the City's annual Provincial debt limit would allow an additional \$5 billion in long term debt to be issued.

In order to ensure that there is continued fiscal flexibility in the future, this report recommends that the City of Ottawa Endowment fund balance continues to be maintained at \$200 million and any excess continue to be directed to fund the capital program.

Council will review and adopt the operating and capital budgets on an annual basis. Future plans will reflect Council's annual reviews.

Financial Implications

Financial implications are identified within the report.

Public Consultation/Input

The public consultation process will be incorporated with the review process for the annual budgets.

RÉSUMÉ

Conformément au plan stratégique du Conseil, ainsi qu'aux bonnes pratiques de planification financière, le présent rapport offre un Plan financier à long terme (PFLT) pour répondre aux besoins d'investissement dans les immobilisations subventionnées par les impôts fonciers. Le plan met l'accent sur les stratégies de financement nécessaires afin de pourvoir au renouvellement et à l'entretien adéquat des infrastructures existantes de la Ville. Le présent rapport accompagne le document intitulé « POLITIQUE DE GESTION INTÉGRÉE DES ACTIFS », lequel propose un programme et une politique de gestion des immobilisations fondés sur le concept d'une bonne intervention, au bon endroit et au bon moment, de façon à tenir compte de l'abordabilité et des risques.

Le budget de 2012 prévoit des mesures pour accélérer les dépenses en immobilisations. Il devance de plusieurs années la date prévue pour la remise en état des immobilisations, qui sera plutôt accomplie au cours des trois prochaines années. Dans le cadre de ce budget 2012, le Conseil a approuvé l'initiative *Ottawa, on se déplace*, pour répondre au besoin d'accroître le renouvellement des immobilisations municipales pour la durée restante du mandat du Conseil et profiter des taux d'intérêt plus bas que jamais. Par conséquent, la majorité des stratégies de financement abordées dans le présent rapport se concentrent sur le besoin de soutenir la rénovation des infrastructures, à compter de 2015.

Les prévisions et les budgets d'immobilisations actuels démontrent que la Ville dépensera environ 80 millions de dollars par année pour le renouvellement des immobilisations financées par les taxes, tels les routes, les ponts, les bâtiments et les parcs. Le rapport « Comprehensive Asset Management Program » révèle également le besoin d'augmenter le financement fiscal des projets de renouvellement de ces infrastructures pour le faire passer à 165 millions de dollars par année d'ici 2022.

Les principes derrière les stratégies de financement présentées dans le présent rapport sont les suivantes :

- Il faudrait maintenir la stratégie conservatrice en matière de dette approuvée par le Conseil et faire respecter le taux limite de dépenses en principal et intérêts pour qu'il ne dépasse pas 7,5 % des recettes annuelles, afin que le seuil d'endettement reste bas et de loin inférieur à la capacité d'emprunt réelle de la Ville;
- Le taux de financement visé pour l'entretien adéquat des routes, des ponts, des bâtiments et des parcs, soit 165 millions de dollars, devrait être atteint d'ici la fin de la période de planification de 10 ans.
- Le financement fiscal pour le maintien en bon état des immobilisations devrait avoir priorité sur les exigences des budgets d'immobilisations et de fonctionnement pour la construction ou l'amélioration des infrastructures.
- Les ordres supérieurs de gouvernement devraient mettre en place une source de financement permanente afin de soutenir les municipalités dans le renouvellement de leurs infrastructures.
- Des augmentations de taxes supplémentaires servant à compenser un écart de financement ne devraient être nécessaires que si les ordres supérieurs de gouvernement n'établissent pas cette source permanente de financement pour répondre aux besoins financiers des municipalités en matière de renouvellement des infrastructures.

Une stratégie visant un taux annuel de financement fiscal de 165 millions (en dollars de 2012) pour le renouvellement des infrastructures_d'ici 2022, dans le cadre de la Stratégie générale pour la gestion des actifs, devra comporter les éléments suivants :

- Le maintien de la somme de 80 millions de dollars déjà comprise dans les

prévisions du budget d'immobilisations;

- Une somme cumulative supplémentaire de 45 millions de dollars (4,5 millions par année) tirée de l'objectif fiscal du Conseil, pour soutenir le renouvellement des immobilisations existantes, et 1 million de dollars de plus par année, pour compenser l'expansion des infrastructures;
- Un financement supplémentaire de 15 millions de dollars par année à compter de 2015 pour le programme de renouvellement, obtenu en transférant des fonds alloués à l'enveloppe d'immobilisations pour les initiatives stratégiques;
- Un financement permanent de 25 millions de dollars par année accordé par les ordres supérieurs du gouvernement, dans le cadre de leurs plans de financement des infrastructures. Si ce financement supplémentaire n'est pas accordé, une augmentation de l'impôt pour les immobilisations de 0,5 % à compter de 2016 permettrait d'atteindre le taux nécessaire de financement d'ici 2022. Autrement, une augmentation plus graduelle des impôts pourrait se faire au rythme de 0,25 %, ce qui suffirait pour atteindre cet objectif d'ici 2024. Si les ordres supérieurs du gouvernement refusent de négocier, cette augmentation pourrait être mise en œuvre ou compensée par d'autres mesures de réduction des dépenses (à déterminer) dans d'autres secteurs des opérations municipales.

Le présent rapport est la dernière d'une série de mises à jour sur le plan à long terme. Au cours de la dernière année, le Conseil a pris connaissance des divers rapports concernant les besoins de financement et les stratégies de prestation à long terme des services municipaux. Grâce à ces stratégies, la Ville d'Ottawa sera en mesure d'entretenir ses importantes infrastructures de transport, d'eau et d'égouts. En même temps, la Ville disposera des fonds nécessaires pour entreprendre un changement majeur dans sa prestation de services de transport en commun, par la réalisation du projet de train léger. L'initiative *Ottawa, on se déplace* permettra aussi de renouveler les infrastructures existantes et d'en construire de nouvelles avant le début des travaux de construction pour ce projet de train léger.

Ottawa fait bonne mine financièrement, et son fardeau de la dette est relativement faible, comparativement à celui d'autres municipalités canadiennes. Il s'élève actuellement à 1,4 milliard de dollars pour des immobilisations achetées ou construites au prix de 15 milliards de dollars. C'est l'équivalent d'une hypothèque de 30 000 \$ sur une maison de 300 000 \$. De plus, la Ville a pu augmenter la dette contractée sans accroître de beaucoup ses versements, en faisant concorder l'échéance de la dette et la durée de vie de l'actif et en tirant profit du taux d'intérêt en baisse. En 2000, lorsque la dette contractée s'élevait à 400 millions de dollars, le coût de l'endettement par facture d'impôt était en moyenne de 162 \$, tandis qu'en 2012, il est de 174 \$. Puisque la Ville profite de taux fixes, elle ne court aucun risque d'augmentation des intérêts pour la dette actuelle.

Dans le contexte municipal, la mesure la plus exacte de la dette est la proportion du budget réservé au remboursement de la dette et la mesure dans laquelle cette obligation limitera les budgets à venir. Le Conseil s'est fixé des limites plus restrictives pour le service de la dette que celles de l'Ontario. À l'heure actuelle, 5,3 % des recettes municipales annuelles servent à rembourser le principal et les intérêts de sa dette, pourcentage bien inférieur à sa limite de 7,5 % et de loin inférieur à la limite d'endettement totale de la Province. On prévoit maintenir le taux de service de la dette à un niveau raisonnable. En 2022, la proportion des recettes municipales consacrée à cette fin sera maintenue sous les 7,5 %. Le service total de la dette restera sous les 10 %, soit moins de la moitié du pourcentage maximal, selon les règles provinciales. Au fur et à mesure que la Ville grandira, la dette encourue restera bien en dessous des restrictions de la Province et de la Ville. À la fin de 2011, la limite d'endettement annuelle de l'Ontario pour la Ville d'Ottawa permettrait d'effectuer un emprunt supplémentaire à long terme de 5 milliards de dollars.

Pour assurer le maintien de la flexibilité fiscale de la Ville, le présent rapport recommande que le solde du fonds de dotation de la Ville d'Ottawa reste de 200 millions de dollars et que tout excédent continue de servir au financement du programme d'immobilisations.

Le Conseil examinera et adoptera chaque année les budgets de fonctionnement et d'immobilisations, lesquels influenceront les plans financiers futurs.

Répercussions financières

Le rapport aborde le sujet des répercussions financières.

Consultation publique et commentaires

Le processus de consultation publique fera partie de l'examen annuel des budgets.

BACKGROUND

Long range financial plans (LRFP) are a hallmark of good financial planning. These plans are updated at regular intervals to reflect new information such as changed priorities, adjusted pricing and any new legislated requirements. This is the fourth long range financial plan since amalgamation.

The last Long Range Financial Plan III (2007) identified a need to increase the amount of tax supported funding for capital renewal projects. At the time, the increase (in 2007 dollars) was estimated to be \$1 billion over a ten year period. Strategies to address the funding gap included the use of special capital tax levies and the recommendation to fund renewal as the first priority, in advance of any strategic initiative funding. As a result of that plan Council approved a three year dedicated tax levy which resulted in the base contribution to capital increasing by \$32 million.

This is the final report in a series of long range financial plan reports prepared during this term of Council that taken together, are considered as the fourth long range financial plan (LRFP IV). Council has previously considered the following long range financial plans:

- Long Range Financial Plan IV (Part 1) (May 2011) : Council adopted the 2012 to 2014 operating budget strategy and established that the increase in the municipal portion of the property tax bill will be a maximum of 2.5% per year during the Council term;
- Long Range Financial Plan Transit (July 2011): An affordability model for transit projects was prepared which looked at the cost of everything planned in the transit capital plan for the next 37 years to ensure the resources are in place to not only construct but run the system envisioned in the Transportation Master Plan. Tough tests were put in place to ensure the plan was affordable without increasing taxes beyond the target and without affecting the other critical capital envelopes. The report concluded that the City can afford to invest and operate the transit system as detailed in the Transportation Master Plan, including the first increment of the Light Rail Transit system. The analysis showed that the plan is affordable with the continued contributions from senior levels of government and with transit taxes and fares increasing at the rate of transit's inflation;
- Long Range Financial Plan IV – Water and Sewer Rate Supported Programs (February 2012): Utility rate increases required to provide for the renewal of water and sewer infrastructure were identified. This funding plan moves the City's required investment in these assets towards the state of good repair objective. The capital investment needs identified in that 10 year plan for the integrated road, water and wastewater projects are used as a foundation for this report since a portion of the funding for the road component relies on property taxation revenue.

The funding strategies identified in this report are consistent with the principles regarding the use of debt adopted by Council in the 2007 Fiscal Framework and as updated through the LRFP IV for Water and Sewer Rate supported programs. These principles are as follows:

- Council has established a limit of 7.5 % of the amount raised from taxes and fees that can be used for the repayment of principal and interest (debt servicing). This criteria applies to debt service costs funded from taxation, user fees and transit fares.
- For water and sewer rate supported debt, the limit is 15% of rate revenues, in conjunction with a policy that states that the water and sewer reserves maintain balances equal to one year's debt servicing charges.
- The term of the debt should match the useful life of the related asset. This ensures that the generations that benefit from the use of the asset share in paying for its cost. Also, since longer debt terms mean more interest is paid, any flexibility that exists to shorten the term of the debt is considered and made at the

time of each debt issue. The City has debt terms that range from 10 to 30 years in keeping with the various useful lives of assets.

Council has adopted a budget strategy and priorities for the term of Council which include maintaining the City's assets in a good state of repair. As part of the 2012 tax and rate supported budgets Council approved the \$340 million *Ottawa on the Move* initiative which advanced the reinvestment in the City's road, water and sewer pipe infrastructure in preparation for the construction of the City's new light rail project. This large infrastructure renewal project addresses the need to increase the investment in capital renewal projects for the remainder of this term of Council. Consequently, the majority of capital funding strategies discussed in this report start in 2015.

The objective of this report is to present a ten year outlook of the property tax supported capital requirements for the delivery of City services. In particular, this report focuses on the funding strategies that are required to provide for the renewal and maintenance of the City's existing asset base in a state of good repair, as discussed in the *Comprehensive Asset Management Program* report. The objective of the proposed asset management program and policy is to apply the right intervention, on the right asset, at the right time in a manner that considers affordability and risk.

This report also presents a consolidated ten year outlook of the City's fiscal situation, taking into account all of the long range plans adopted this term.

The Police Services Board, Library Board and Housing Authority will prepare separate capital plans for the assets under their mandates. The renewal component of library facilities is included with the CAM report.

DISCUSSION

The *Comprehensive Asset Management Program* report tabled at committee on September 19, 2012 identified the challenge the City of Ottawa faces to bring its investment in tax supported capital assets to the good state of repair level. This is a challenge being faced by all other Canadian municipalities. The following examples identify the size of the challenge and strategies a few other cities are adopting.

- Mississauga: Identified a \$275 million infrastructure gap based on replacement cost as a result of aging infrastructure. Council has approved a 2% infrastructure levy for 2012 and a forecast showing a similar requirement for the next 10 years. The use of debt was also approved.
- Winnipeg: The Financial Management Plan adopted by Council in March 2011 showed a \$3.5 billion current infrastructure deficit forecast to grow to \$7.4 billion over 10 years. The largest portion of deficit relates to existing and new unfunded road infrastructure. Strategies included the development of an Asset Management Plan (triple bottom line) to prioritize investments. The report indicates that incremental debt issuance will likely be required to fund renewal

but will be managed by setting targets for debt servicing and total debt issued.

- Hamilton: The 2012 Capital Budget shows a current infrastructure gap is estimated at \$195 million per year. Council endorsed a 0.5% Capital Levy increase. Strategies being discussed are that the City must maximize its own source funding, keep lobbying the senior levels of government for additional infrastructure repair subsidies and strategically direct these funds to priority projects.

Staff has reviewed funding strategies proposed and/or used by other municipalities in the context of the recommendations being made in each of the Long Range Financial Plans. Document 1 contains a chart summarizing these strategies and whether they are recommended for Ottawa.

The City currently owns assets that cost \$15 billion to build or purchase, with a depreciated value of \$11.5 billion at the end of 2011. These assets and their values are shown in the following table. It is estimated that these assets have a replacement value of more than \$32 billion.

Table 1: Historical Cost of Assets by functional area

Tangible Capital Assets in Consolidated Financial Statements	2011 Value
Historical Cost (Gross Book Value):	(\$Millions)
Roads, structures, buildings, parks	4,656
Water and Wastewater	5,620
Transit	1,189
Solid Waste and recycling	121
Corporate Vehicles	247
Social Housing	482
Police	109
Public Health	8
Total GBV excluding land	12,432
Land	2,570
Total GBV of Tangible Capital Assets	15,002
Accumulated amortization (depreciation)	3,652
Depreciated Value of Tangible Capital Assets	11,350

The capital works that are funded either in whole or in part by property taxation include the following:

- Renewal of transportation infrastructure, buildings and parks as detailed in the Comprehensive Asset Management Program report;
- Renewal of other City assets such as information technology and equipment;
- The City's share of growth supported works funded from property tax that are included in the Development Charge Background study;
- Strategic Initiative projects that implement the various City master plans or

enhance services currently provided to residents, implement new legislative requirements, and respond to changes in demand for service.

The details of the growth related capital program are contained within the DC Background study and the category is not examined in significant detail in this report as the DC by-law is updated every five years. The next DC by-law update is in 2014 and at that time any difference in the City funding required, from what is included in this report, will be identified and funding strategies presented.

The City builds and maintains its capital assets from a yearly tax funded contribution to capital and earnings from the Endowment fund. Debt that is raised and then repaid from taxation also contributes to fund the capital program. The annual funding from these sources provides \$136 million. Currently, this funding is allocated as follows:

- \$60 million for renewal of transportation infrastructure, buildings and parks, as identified in the *Comprehensive Asset Management Program* report;
- \$30 million for renewal of all other City assets such as information technology and equipment;
- \$11 million for growth related projects identified in the Development Charge Background study;
- \$35 million for Strategic Initiatives projects.

Funding Requirement for Renewal of Transportation Infrastructure, Buildings and Parks (CAM)

The *Comprehensive Asset Management Program* report recommends that Council set a target to achieve a level of renewal funding for transportation infrastructure, buildings and parks that will allow assets to be maintained in a state of good repair. The report indicates that an annual investment level of \$165 million (in 2012 dollars) would be required to achieve this level.

Current capital budgets and forecasts show that for the period 2012 to 2015, the City will spend approximately \$80 million per year on the renewal of these assets. Approximately \$60 million per year is funded from property tax sources and \$20 million from water and wastewater rate revenues as part of the integrated program.

In developing strategies that would address this funding target the following principles were used:

- Maintain Council's approved conservative debt strategy and enforce the limits on principal and interest expenses at 7.5% of annual revenues to keep debt low and well below the actual borrowing capacity of the city;
- The target annual funding level, from tax supported funding sources, required to maintain road, bridge and building assets in a good state of repair of \$165 million should be achieved by the end of the 10 year planning period;
- Tax funding for renewal at the "good state of repair" level should take priority

- over new or enhanced capital and operating budget requirements;
- Senior Governments should provide for a permanent source of funding to assist municipalities with infrastructure renewal;
 - Incremental tax increases (or spending reductions) required to support any capital renewal funding gaps will only be instituted if senior governments fail to provide permanent funding to assist municipalities with funding infrastructure renewal needs.
 - The City will continue to provide for inflation on capital contributions each year set at the rate of inflation in the construction price index.

Senior Government Funding for Infrastructure

Recently, both the Federal and Provincial governments have recognized that municipalities alone cannot solve the infrastructure challenges. The Province recently announced its *Building Together: Municipal Infrastructure Strategy* and a Municipal Infrastructure Investment Initiative (MII) which requires municipalities to develop asset management plans prior to seeking provincial capital funding.

The federal government has announced its commitment to working with its partners and stakeholders, including municipalities, to develop a long-term plan for public infrastructure that extends beyond the expiry of the Build Canada plan in 2014. With budget 2012, the federal government committed to exploring broad directions and priorities for a new plan that will focus on investments in infrastructure. Consultations are presently underway. The funding envelope for the new program has not yet been announced and it is expected that it will take a few years to develop the program.

Consequently, the funding strategies being presented at this time do not recommend a City of Ottawa infrastructure tax levy as there is some indication that senior levels of government are moving to assist municipalities in this regard. In order to ensure that any new infrastructure funding programs from the senior levels are available for use in renewing existing infrastructure, this report recommends that Council establish infrastructure renewal as the City priority along with the need for continued senior government support for transit projects approved as part of the Transit Long Range Financial Plan.

Funding Strategies:

The funding strategy to achieve the \$165 million (in 2012 dollars) targeted annual tax supported funding level for the renewal of the assets in the Comprehensive Asset Management Program by the year 2022 requires the following:

- \$80 million already provided for in existing capital budget forecasts be maintained;

- \$4.5 million on a yearly basis from within Council's target tax be added to support capital asset renewal for existing assets ;
- \$15 million per year starting in 2015 in incremental funding for the renewal program by redirecting funding that had been allocated to strategic initiatives (new works):
- \$25 million in permanent annual funding to be secured from senior governments through their Infrastructure Funding plans. In the absence of such new funding, a dedicated infrastructure tax levy equal to a one half of one percent of a tax increase starting in 2016 would achieve the required funding level by 2022. Alternatively, a more gradual implementation of an infrastructure levy implemented at the rate of one quarter of one percent would achieve the required funding level by 2024. Should senior governments fail to come to the table, this levy could be applied or offset through further, yet to be identified, reductions in spending in other areas of city operations.

If Council wanted to accelerate the increase in the contribution to get to \$165 million over a five year period, an additional 1% would have to be added to the City wide tax levy starting in 2013. This is not being recommended as it goes beyond the Council approved tax targets for this term.

As the amount identified in the *Comprehensive Asset Management Program* was only for the assets that the city owns at this time, an amount should also be added to the contribution to capital to reflect the growth in the asset base. Without several years of history to establish what an appropriate contribution should be this report is recommending \$1 million be added every year for growth in the asset base. When the next LRFP is presented there will be more information available to quantify the appropriate level of contribution.

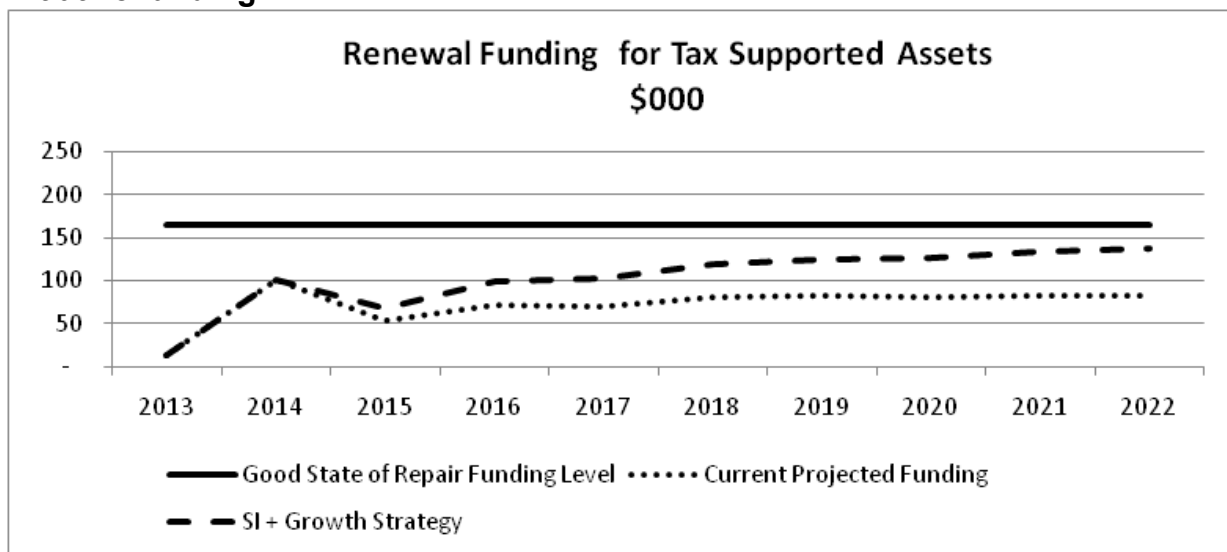
The funding plan assumes the following with respect to funding levels for programs not included in the CAM report:

- Renewal of other City assets such as information technology and equipment will be maintained at the existing annual allocation of \$30 million per year;
- Growth: the City's share of growth supported will be maintained at the existing annual allocation of approximately \$11 million per year. The 2014 update of the Development Charges will be identify any differences from this allocation and present funding strategies at that time;
- Strategic Initiatives: Council has established its priorities for the funding of strategic initiatives for the period 2012 to 2014. The current annual funding plan allows for some \$20 million to be directed to various City strategic initiatives

along with \$15 million toward the multi-year Service Ottawa technology improvement initiative. This report recommends that \$20 million be maintained but that the balance of the funding, which will be freed up from the Service Ottawa component, be redirected to fund infrastructure renewal.

The results from the adoption of an increased contribution to capital found within the tax targets Council establishes plus the redirection of funds from Strategic Initiatives are shown in Figure 1. The results of these two strategies increase the annual funding level to close to \$140 million by year 10 (2022). The objective of meeting the targeted \$165 million funding level in 10 years will not be achieved with these strategies alone.

Figure 1- Funding Strategy with Increase Allocation and Redirection of Strategic Initiative funding



Figures 2 and 3 show that in the absence of permanent funding sources from senior government levels, the targeted funding level of \$165 million could be reached by 2022 with an infrastructure tax levy equal to one half of one percent on the tax bill, and by 2024 with an infrastructure levy equal to one quarter of one percent.

Figure 2 – Funding Plan showing Incremental Revenues with a Dedicated tax levy equal to a one half of one percent tax increase

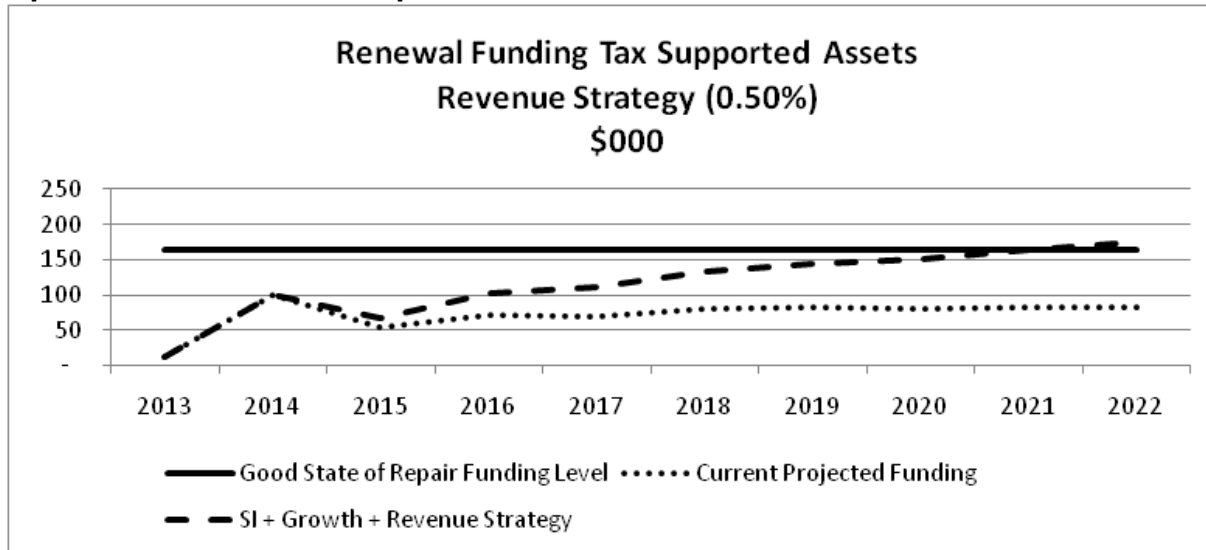
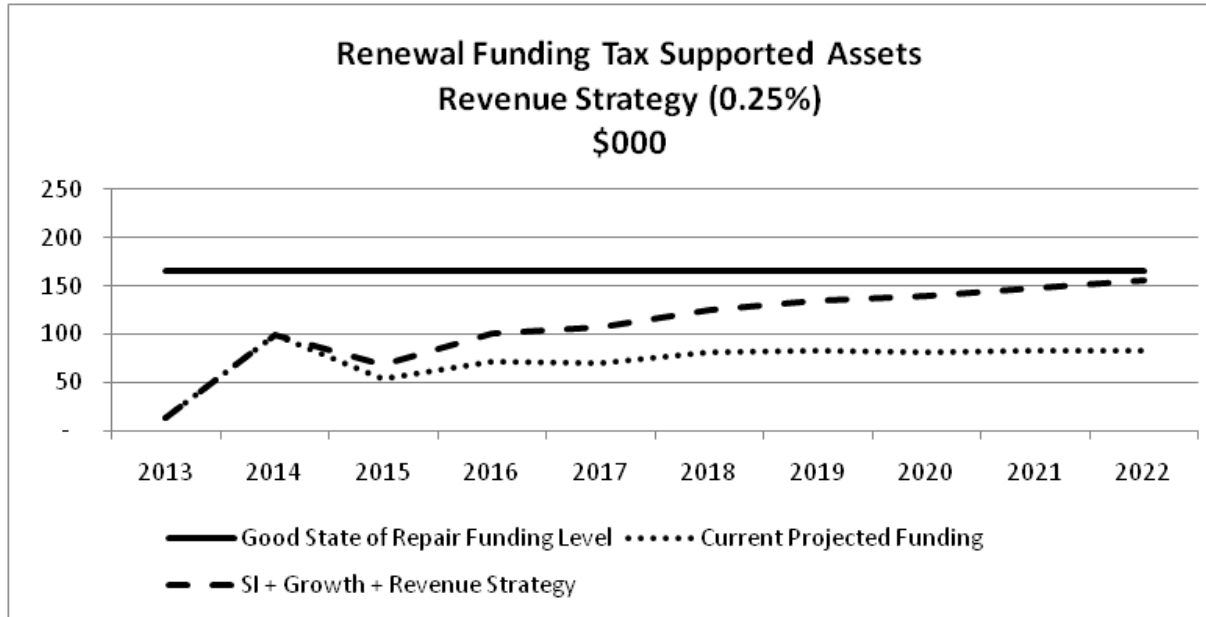


Figure 3 – Funding Plan showing Incremental Revenues with a Dedicated tax levy equal to a one quarter of one percent tax increase



Enhancements Combined with Renewal

The City’s current practice is to coordinate road repair and reconstruction works with enhancements such as new cycling facilities, expanded or new sidewalks and streetscaping when cost effective to do so as part of road reconstruction projects. It is

estimated that these initiatives can add approximately 5% to the cost of the renewal work. Over a ten year period, the value of these enhancements could add \$90 million to the funding required for renewal projects. This report recommends that starting in the 2015 budget year, the enhancement component of any capital renewal project be identified and approved separately by Council. With this additional level of information, Council will be in a better position to prioritize the allocation of funding for capital projects.

Financial Profile - LRF Tax Supported services in the context of all other funding needs and strategies

During the past year, Council has considered two other long range plans that deal with the funding needs and strategies for capital works used to provide municipal services. With the adoption of these strategies, the City will be able to maintain its critical transportation, water and wastewater infrastructure. At the same time, the City will have the financial capacity to undertake a major change in how it delivers transit services through the light rail transit project.

The following section discusses the funding strategies for renewal works within each of the three capital components of the Long Range Financial Plan IV update. A profile of the City's existing and future debt is also presented, taking into consideration all of these plans.

Transit Long Range Plan:

The 37 year Transit Long Range Plan showed that the current Transit plan is affordable within the existing contribution levels maintaining taxes and fares at inflation. Transit has traditionally been a shared capital item with senior orders of government and it is assumed that this partnership will continue over time. Future transit investments included in the planning horizon include the \$2.1 Billion first phase of the Light Rail Project (Tunneys to Blair) as well as subsequent phases. In order to test overall affordability the transit LRF used very conservative assumptions with respect to revenue growth.

The level of investment in the Transit LRF for capital renewal was set at the good state of repair level. Transit has dedicated sources of funding not available to other City services, so renewal works can be funded from federal and provincial gas taxes in addition to the dedicated transit levy and transit fares.

The debt profile included in this analysis for transit projects is taken from the Transit LRF plan up to the year 2022 which includes the full forecast for the LRT project. Council will receive a report later this year that details the final plan to finance this project when a proponent is selected.

Water and Waste Water Long Range Plan

In 2012, Council approved a ten year spending and debt issue plan that allowed for an increase in the maintenance of these assets. Revenue increases from water rates and sewer surcharge rates to support the plan were 6% in 2012, 7% in 2013 and 2014, 6% in 2015 and 2016 and 5% every year thereafter. In order to ensure that needed work can be undertaken the amount of debt to be issued was increased. The limit on debt servicing charges was adjusted to a maximum of 15% of the annual \$300 million water and wastewater budget. At the same time reserve balances would be increased to ensure one year of debt servicing is maintained as a balance.

Tax Supported Services Long Range Plan:

This report recommends that the funding of capital renewal works be made from increased contributions to capital from taxation and that the debt limits for tax supported capital works continue to be limited to the amount of debt retiring within the year. Council should reserve the use of incremental debt for what has been defined as legacy projects. Legacy projects are considered one of a kind and contribute towards the quality of life in the city over many generations, such as Lansdowne. This is consistent with Council's approved debt principles.

Net tax supported debt servicing (principal and interest) for capital assets included in the *Comprehensive Asset Management Program* will remain at approximately \$80 million per year including debt issued for Lansdowne Park and for *Ottawa on the Move*. The City will issue new tax supported debt for the capital program as debt is retired. Unissued tax supported debt will be reduced over time but due to the three year lag between when debt is authorized and when it is issued, the unissued amount will never be eliminated.

Summary of Renewal Requirements and funding strategies

Each of the previously discussed long range plans includes funding for new assets and also for the maintenance (renewal) of existing assets. The following table shows the total annual cost of the renewal (maintaining) assets component in each of these plans and the strategies for those investments.

Table 2 - Annual Renewal Costs

Plan	Asset Type	(\$Millions)	Funding Strategy
Tax supported	Roads, buildings, structures, parks	165	\$80 M included in existing budget revenues \$60 M by reprioritizing existing spending \$25 M from new revenue sources , including senior levels of government
Tax supported	Other Renewal	30	Existing tax sources
Rate supported	Water and sewer pipes, treatment facilities	260	Water and Wastewater rate increases Debt service allowed to reach 15 percent
Transit	Vehicles, facilities, equipment	70	Existing capital contributions from transit taxes to be increased with the rate of inflation
Total		525	

Debt Profile

Long-term debt for municipalities is restricted by the Municipal Act. The City cannot borrow to pay for operating expenses. Long term debt can only be used to fund capital works, and the City is limited in how much debt servicing (repayment of principle and interest) it can take on by the provincially established Annual Debt Servicing Limit. The annual debt servicing limit is 25% of own source revenues, which is defined as all revenues other than those provided by the senior levels of government or from development charges.

The provincial limit applies to all debt, regardless of the source of repayment. The City repays debt from various sources including water rate revenues, taxation, transit fares, Provincial and Federal Gas taxes and development charge revenues. In order to control the amount of debt that would be repaid by citizens, Council established a limit of 7.5% of taxes and fees to repay principal and interest (debt servicing). This limit applies to debt service costs funded from taxation, user fees including water and sewer rates, and transit fares. Less than 6% of the City's taxes and fees are used annually to pay for interest and principal on debt. Total debt servicing costs are currently just under 7% of own source revenues when measured on the Provincial debt limit scale of 25%.

When debt is issued, interest rates are locked in for the full term of the debt issue. As a result there is no interest rate exposure from future interest rate increases. As City debt is for fixed term and rate, there is no uncertainty as to what the payments are for the life of the debt.

Council approves new debt issues (authorized debt) with each capital budget and with specific capital reports received during the year. The debt for a capital project is

typically issued 3 years after the project is authorized. At any time, the total net issued debt plus the authorized but unissued debt represents the value of debt that has been approved to construct, purchase or renew municipal assets.

The City's debt is rated by external agencies who review all of the debt plans and the City's financial management. Moody's Investors Service has given the City its highest rating, Aaa/Stable and Standard and Poor's have given the City its second highest rating of AA+/Stable. These ratings have been re-confirmed during the past few months and have not changed since amalgamation. Rating agencies look to a variety of factors when rating the municipality, including debt levels, the economy and regulatory environment, as well as the City's fiscal capacity. A summary of the current ratings, together the rating agencies' comments on the City's financial management, is appended as Document 2 to this report.

Ottawa is in a strong financial position with relatively low debt burden compared to other major Canadian cities. The following table uses work prepared by the Dominion Bond Rating Service using data from the 2011 financial statements, and the City's profile using the DBRS methodology. The results show that on a per capita basis Ottawa had the second lowest net tax supported debt of the six cities and the second lowest total debt per capita.

Table 3 – Debt Comparison with Major Canadian Cities

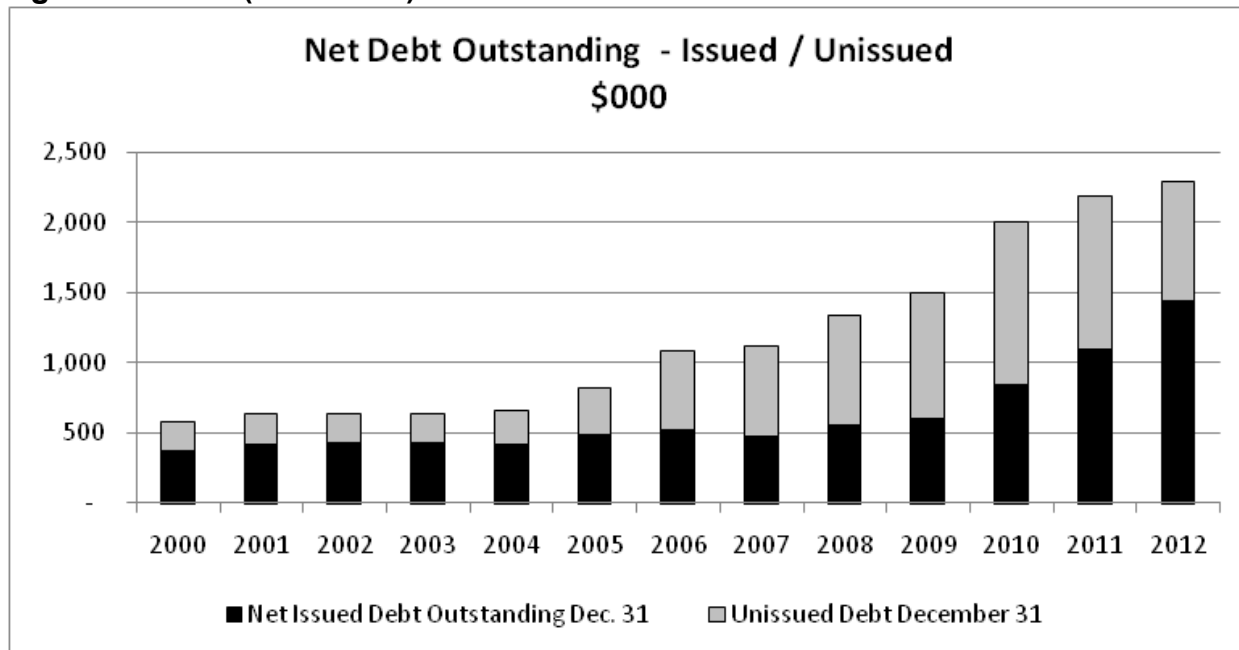
2011 Year-end Debt Comparison						
	Ottawa	Toronto	Vancouver ³	Calgary	Edmonton	Montreal
Net tax supported debt¹ (\$000)	926,421	3,264,000	1,651,101	893,114	1,265,890	3,819,000
Net Total Debt ² (\$000)	1,424,774	4,037,600	2,176,610	3,961,764	2,150,522	5,520,000
Population	927,118	2,790,200	643,000	1,090,969	812,000	1,950,000
Net tax debt per capita (\$)	999	1,170	2,568	819	1,559	1,958
Net total debt per capita (\$)	1,537	1,447	3,385	3,631	2,648	2,831
1 - Calculated by DBRS – Ottawa, Toronto and Edmonton calculated using DBRS methodology						
2 - Calculated by DBRS includes rate and mortgage debt						
3 - 2010 year end values, as 2011 not yet available						

Current total issued debt is \$1.4 billion. These funds were used to purchase or repair assets that cost \$15 billion. City issued debt is therefore equivalent to having a \$30,000 mortgage on a \$300,000 home.

When the City was formed in 2001 it had outstanding debt and other debt that had been approved by previous Councils but was not yet issued. The following chart shows the history of debt issuance and debt approvals since amalgamation. The low interest rate environment, together with a policy of matching debt term to the underlying assets, has allowed the City to maintain its debt servicing costs at almost the same level as at amalgamation. In 2000 with issued debt of \$400 million the cost of debt was \$162 on an average tax bill of \$2,000. In 2012, that cost of debt is \$174 on a \$3,000 average tax bill but the issued debt is more than tripled.

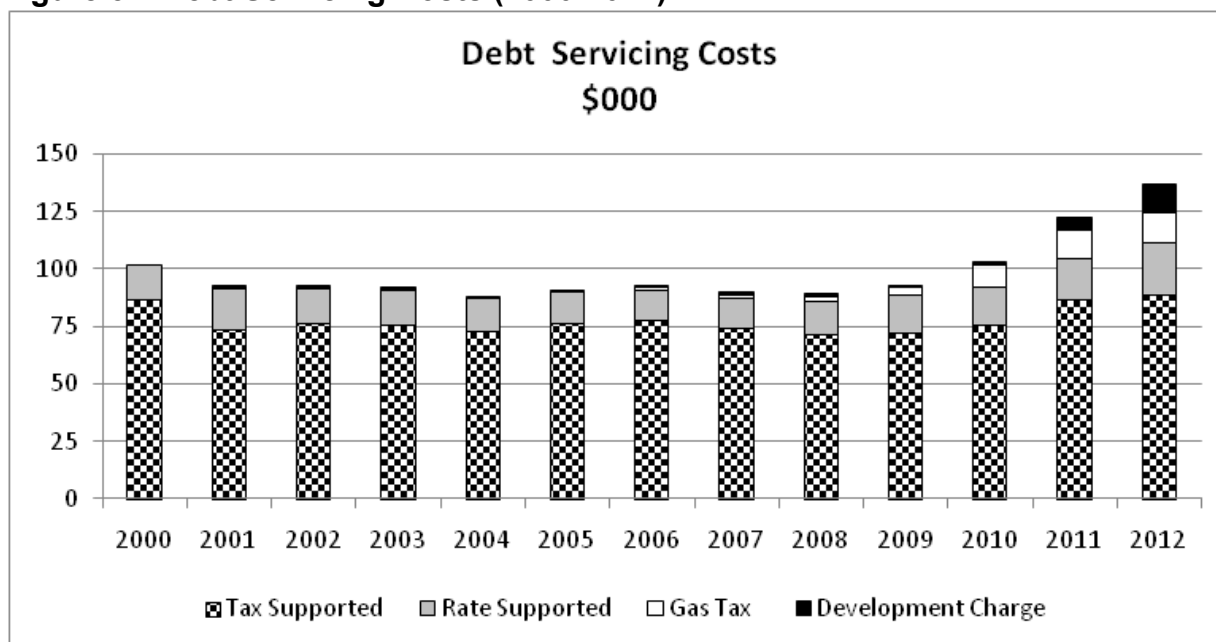
Between 2007 and 2010, the City approved an increase of \$800 million in debt. The increase was primarily associated with the \$400 million Stimulus program and an acceleration of spending on transit related initiatives.

Figure 4 – Debt (2000-2012)



The corresponding principal and interest costs are shown in the following chart. As can be seen the debt servicing now includes the use of federal and provincial gas taxes and increasingly from development charges.

Figure 5 – Debt Servicing Costs (2000-2012)



Future Debt Profile

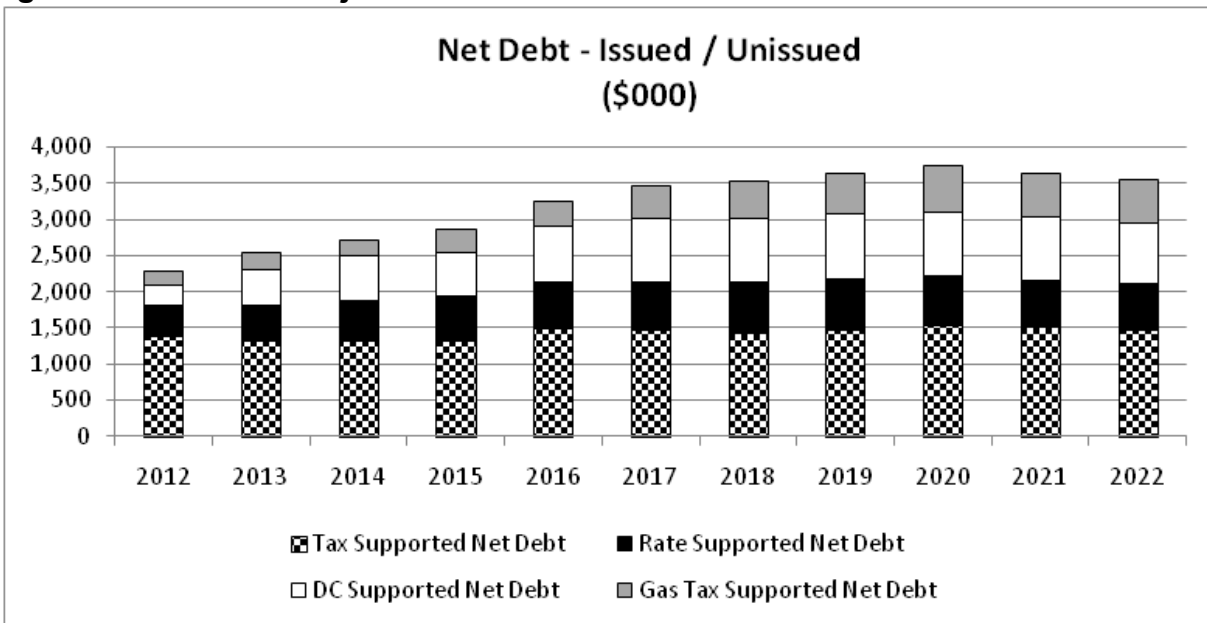
While the gross amount of debt issued will increase over the next ten years debt servicing will continue to be within manageable levels.

The following forecasts have been prepared using all current debt issuance plans including debt issue plans for the Ottawa on the Move project, all transit projects including the first phase of the LRT and for the City's share of the Lansdowne Park redevelopment project. The debt projections shown in this report for the period to 2015 are consistent with the 2012 to 2015 projections that are included with the approved 2012 budget document.

For purposes of estimating debt servicing impacts conservative interest rates have been used. For example 5.5 percent for 20 year debt has been used when current rates are closer to 3.5 percent. The City's property tax revenue base is assumed to grow at 3.5 percent through a combination of tax increases in line with inflation and a modest growth in tax assessment. The City's asset base will also continue to grow from today's \$15 billion cost to an estimated \$22 billion by 2022 as new transit, transportation and water/wastewater infrastructure is constructed.

Figure 6 shows that the growth in debt for all services from the current combined issued and unissued debt of \$2.3 billion (\$1.4 billion in issued debt and \$0.9 billion in unissued debt). Tax supported debt includes Transit and Police.

Figure 6 – Net Debt Projections



Total debt in absolute dollars will grow over the period, however during that same period, the City’s asset base will also grow. During the next ten years, the City’s assets are expected to grow by an estimated \$7 billion. This includes \$2.1 billion for the first phase of light rail, plus the growth in other transit, transportation and water infrastructure. In 2022, the \$3.5 debt level shown in figure 6 will represent 15 percent of the projected total value of the City’s assets at that time. This is similar to today’s debt as a percentage of asset value. Even though the quantum of debt increases the use of debt is not increasing significantly from what is used today.

Future Debt Servicing Costs

Figure 7 shows the cost of principal and interest payments for debt (debt servicing) over the next 10 years. The debt servicing funded from property tax supported revenues will remain fairly constant over the 10 year period. As per the LRFP water rate supported debt costs will rise gradually over the period. Total debt servicing will increase during the 2017 to 2022 period but primarily for development charge and gas tax supported debt.

Figure 7 – Forecasted Debt Servicing Costs

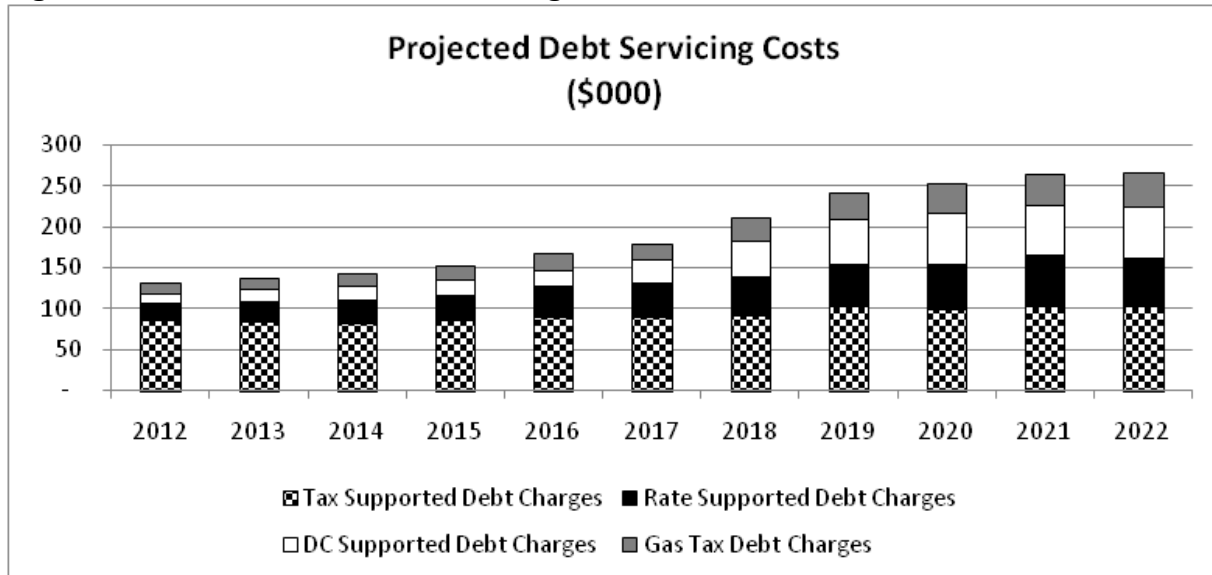
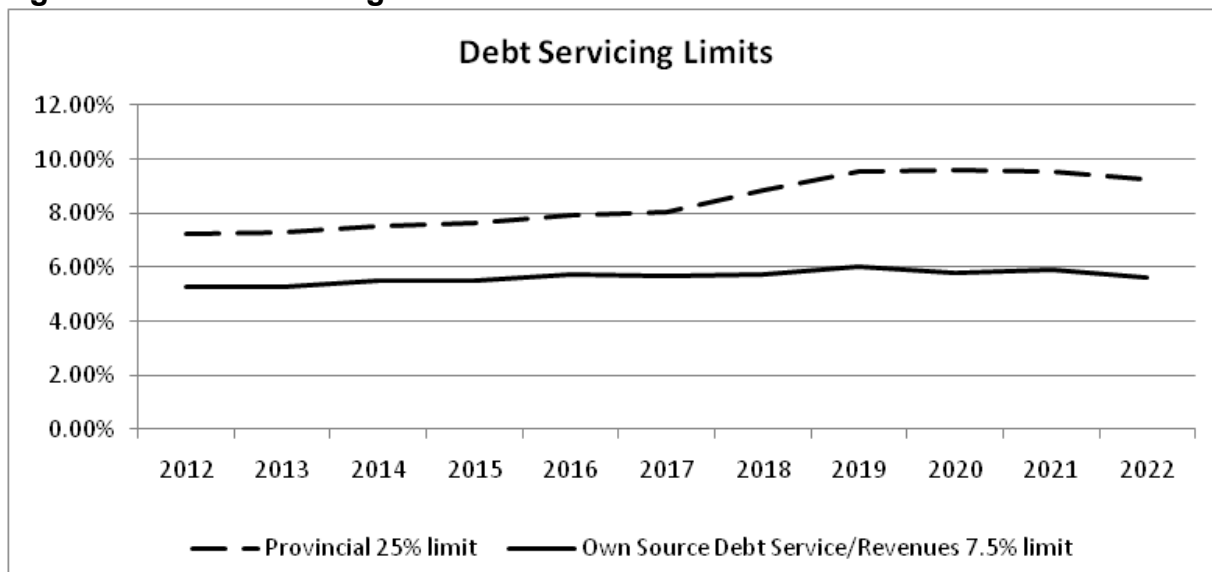


Figure 8 shows the forecasted debt servicing costs against the limits imposed by the Province and by Council. The total cost of principal and interest payments (debt servicing) funded from own source revenues (property taxes, rates and fees) as measured against Council's stated policy of no more than 7.5 %, which is at 5.3% in 2012 will continue to stay below 6%.

Figure 8 – Debt Servicing Limits



Compared to the 25 percent Provincial limit, total debt serviced from all revenue sources (taxes, fees, gas taxes and development charges) will remain below 10%

during the 10 year planning period, less than half the limit applied under provincial rules. Council has previously received a similar assessment of the debt profile against the Provincial debt servicing limits in the July 2011 Transit LRFP. That report provided an assessment of the impact of the transit plan, in light of the total debt profile for the City and concluded that debt servicing was still within manageable levels.

While the amount of debt will increase over the next ten years the City will not be nearing any of the debt limits set by the Province or by Council. Figures 9 and 10 show the City’s debt capacity during this time period. Debt capacity is the amount of debt issued or approved and what could still be approved within the existing limits. Debt capacity grows as the City’s revenues increase as the result of inflation or organic growth.

Figure 9 – Total Debt level compared to 25% Provincial Debt Capacity Limit

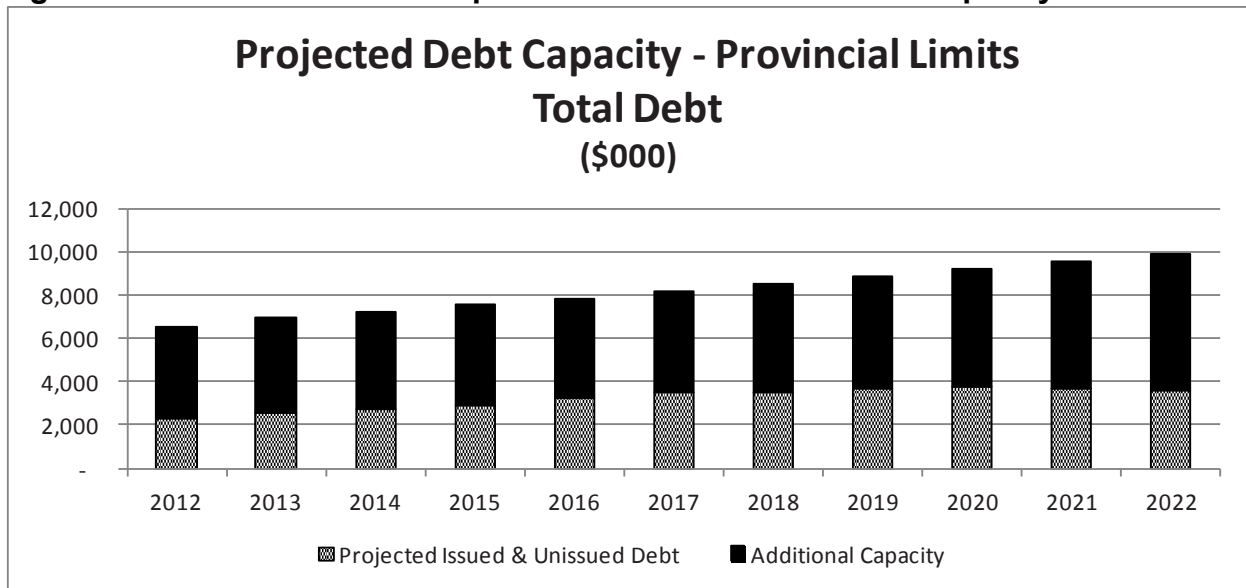
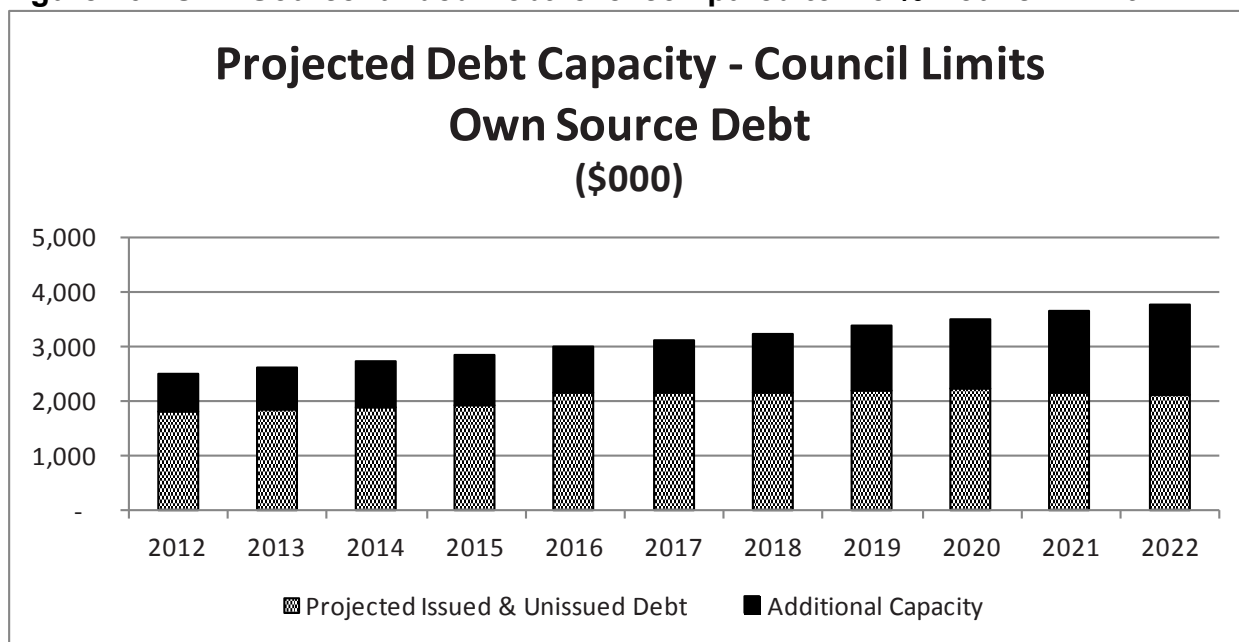


Figure 10– Own Source funded Debt level compared to 7.5 % Council Limit



Both figures show that as the City grows, the total debt issued will remain far below the debt limit restrictions imposed by the Province. At the end of 2011 the City's annual Provincial debt limit would allow an additional \$5 billion in long term debt to be issued.

Reserves and Fiscal Flexibility

The City's current cash and investment balances at year end 2011 were \$1.1 billion. Debt rating agencies look to the total cash and investment balances when assessing ratings as they want to ensure the continued ability to service debt obligations. It is therefore important to maintain a level of liquidity to protect the City's credit ratings.

The City's reserves and cash balances include \$200 million from the Endowment Fund; \$600 million in deferred revenues (including \$400 million in Development Charge revenues) and \$350 million in various City operating and capital reserves. In order to ensure that there is continued liquidity in the future, this report recommends that the City of Ottawa Endowment fund balance continues to be maintained at \$200 million and any excess continue to be directed to fund the capital program.

The Endowment Fund was established from the proceeds received from Hydro Ottawa when it completed its refinancing in 2005. The Province allowed the creation of an endowment fund with a broadened scope of eligible investments including Canadian equities and corporate bonds, and requires the Fund to be managed by external professional investment managers.

On June 14, 2006 Council adopted the investment policy and procedures for the Endowment Fund which set the target rate of return at 6.5% and established the

Endowment Fund Investment Committee to oversee the operation of the Fund. Earnings from the Fund are directed to the capital program. Ontario Regulation 655/05 permits the City to reduce the principal component of the fund starting in 2014.

This report recommends that the City continue to maintain assets in this fund at the original \$200 million level in future years in order to continue to maintain sufficient reserves on hand. Maintaining assets in this fund gives the City the opportunity to increase earnings through participation in the equity markets.

RURAL IMPLICATIONS

This report applies to City-wide assets. Transportation infrastructure, buildings and parks are important assets serving the City's rural area.

CONSULTATION

The public consultation process will be incorporated with the review process for the annual budgets.

COMMENTS BY THE WARD COUNCILLOR(S)

This is a City-wide report.

LEGAL IMPLICATIONS

There are no legal impediments to approving the recommendations in this report.

RISK MANAGEMENT IMPLICATIONS

There are no risk management implications.

FINANCIAL IMPLICATIONS

Financial implications are identified within the report.

ACCESSIBILITY IMPACTS

Funding requirements associated with accessibility are identified during the annual budget cycles.

ENVIRONMENTAL IMPLICATIONS

Not applicable.

TECHNOLOGY IMPLICATIONS

Funding requirements associated with technology are identified during the annual budget cycles.

TERM OF COUNCIL PRIORITIES

The development of a Long Range Financial Plan is identified as a term of Council priority.

SUPPORTING DOCUMENTATION

[Document 1](#) – Strategies Used by other Municipalities

[Document 2](#) – Summary of Credit Ratings

DISPOSITION

Information contained in this report will be utilized during the annual budget setting process.

Report to/Rapport au:
Environment Committee
Comité de l'environnement
and Council / et au Conseil

27 January 2012 / le 27 janvier 2012

Submitted by / Soumis par: Marian Simulik, City Treasurer/Trésorière municipale

*Contact Person/Personne ressource: Mona Monkman, Deputy City Treasurer, Corporate Finance/ Trésorière municipale adjointe – Finances municipales
Finance Department/ Service des Finances
613-580-2424 ext./poste 41723, Mona.Monkman@ottawa.ca*

City Wide / à l'échelle de la Ville

Ref N°: ACS2012-CMR-FIN-0004

SUBJECT: LONG RANGE FINANCIAL PLAN IV - WATER AND SEWER RATE SUPPORTED PROGRAMS

OBJET : PLAN FINANCIER À LONG TERME IV – PROGRAMMES FINANCÉS À PARTIR DES REDEVANCES D'EAU ET D'ÉGOUTS

REPORT RECOMMENDATIONS

That the Environment Committee recommend that Council

- 1. Receive and table the Long-Range Financial Plan IV– Rate Supported Programs (Water and Sewer) at its meeting of January 31, 2012; and**
- 2. At its meeting of February 21, 2012, recommend Council approve at its meeting of February 22, 2012:**
 - a) The transfer of \$10.0 million from the Water Reserve to the Sewer Reserve;**
 - b) Amendments to the Fiscal Framework (2007) Targets for Debt as follows:
Principal and interest on water and sewer rate supported debt to be limited to no more than 15% of rate revenues, and that the water and sewer reserves maintain balances equal to one year's debt servicing charges;**
 - c) Amendments to the existing Administration of Capital Financing and Debt Policy, Primary Objectives, Section 5, to reflect the following wording:
Match the Term of the Capital Financing to the Useful Life of the Related Asset: The City's practice will be to issue debt for a term that is consistent with, but will not exceed, the anticipated useful life of the underlying asset.**

RECOMMANDATIONS DU RAPPORT

Que le Comité de l'environnement recommande au Conseil :

- 1. Reçoive et dépose le Plan financier à long terme IV – Programmes financés par redevances (eau et égouts) à sa réunion du 31 janvier 2012;**
- 2. À sa réunion du 21 février 2012, recommande au Conseil d'approuver à sa réunion du 22 février 2012**
 - a) le transfert de 10,0 millions de dollars de la réserve pour eau à la réserve pour égout;**
 - b) de modifier comme suit les cibles d'endettement du Cadre financier (2007) :**
Le principal et l'intérêt de la dette financée par les redevances d'eau et d'égout ne doivent pas dépasser 15 % des recettes provenant des redevances et le solde des réserves pour eau et pour égout doit être au moins égal aux frais annuels de service de la dette;
 - c) de modifier comme suit la Politique sur les dettes et le financement, Objectifs primaires, section 5:**
Faire coïncider la durée du financement d'immobilisation avec la durée de vie utile du bien correspondant. La Ville aura pour pratique d'émettre un titre de créance dont l'échéance sera conforme, mais non supérieure, à la durée de vie utile prévue du bien immobilisé.

EXECUTIVE SUMMARY

Consistent with Council's strategic plan, and in keeping with sound financial planning practices, this report establishes a long range financial plan (LRFP) for water and sewer capital investment needs. The report provides a series of financing strategies that balance the need to maintain and build capital assets with the need to manage debt, reserve balances and rate increases. The strategy reflects the capital intensive nature of delivering these services with assets that last for multiple generations.

The City's current investment in water and wastewater assets is over \$18 billion. This includes 8,000 kilometers in water, sanitary and storm sewer pipe inventory; two water purification plants (Lemieux and Britannia); and the Robert O. Pickard Environmental Centre (ROPEC), the City's sewage treatment plant.

This LRFP identifies a significant increase in the capital needs detailed in the last LRFP in 2007. These increases are a result of new provincial legislation; the Ottawa River Action Plan; the impact of on-going condition assessments and risk mitigation work, and the advancement of renewal works through the Ottawa on the Move initiative established in the 2012 tax budget.

As part of the analysis, the annual reinvestment requirements for existing assets was determined using a risk based approach. The value of growth projects in the water and sewer systems was forecasted and strategic initiatives that Council has approved or as a result of new or changes regulatory requirements was also detailed. As a result, the City has estimated that its share of water and sewer capital needs over the next 10 years amounts to an investment of \$2.7 billion.

The funding plan developed moves the City towards this required level of investment over the 10 year period.

The funding plan was developed using the following principles:

- Debt servicing charges (principal and interest) for such a capital intensive program should be set at a maximum 15% of the annual budget, a level which is greater than the current Council limit of 7.5% for other City services;
- Debt will be issued for terms that better match the life of the assets they are funding, which has the effect of reducing the annual operating impact of debt issuance; and
- Required water and wastewater rate increases will be minimized as much as possible and will be smoothed over the 10 year forecast period in order to provide predictability for ratepayers.

In total the plan being proposed sees a city investment of \$2.1 billion over the ten year period. The plan being put forward, which is reflected in the 2012 draft budget, deals with the higher level of capital investment required in the first four years by maximizing the use of reserves and debt. In the long term, adequate annual funding would be available to meet the annual capital investment requirement. Revenue increases required to support the plan are 6% in 2012, 7% in 2013 and 2014, 6% in 2015 and 2016 and 5% every year thereafter. These projected rate increases include inflation.

Council will review and adopt the operating and capital budgets on an annual basis. Future plans will reflect Council's annual reviews. It should also be noted that spending needs and financing plans may also be adjusted in the future as a result of legislative requirements (Clean Water Act/Source Water Protection Act, Municipal Wastewater Effluent Standards legislation) and as a result of the City's planning process such as the Official Plan, the Infrastructure Master Plans and Stormwater Master Plans.

SOMMAIRE

Conformément au plan stratégique du Conseil et en fonction de saines pratiques de planification financière, le présent rapport établit un plan financier à long terme (PFLT) pour les besoins au titre des dépenses en immobilisations liées aux réseaux d'aqueduc et d'égouts. Le rapport fournit une série de stratégies de financement qui établissent un équilibre entre le besoin de maintenir et de construire des immobilisations et la nécessité de gérer la dette, les comptes de réserve et les hausses tarifaires. La stratégie reflète la nature exigeante en investissements de la prestation de ces services avec des immobilisations qui durent pendant de multiples générations.

Les investissements actuels de la Ville dans les réseaux d'aqueduc et d'égouts s'élèvent à plus de 18 milliards de dollars. Ceci comprend un inventaire de 8 000 kilomètres de conduite d'aqueduc et d'égouts sanitaires et pluviaux; deux usines de purification de l'eau (Lemieux et Britannia); le Centre environnemental Robert-O-Pickard (CEROP), l'usine de traitement des eaux usées de la Ville.

Le présent PFLT met en lumière des augmentations importantes au titre des besoins en immobilisations spécifiés dans le dernier PFLT en 2007. Ces augmentations découlent d'une nouvelle législation provinciale; du Plan d'action de la rivière des Outaouais; de l'incidence des évaluations continues de l'état et des travaux d'atténuation des risques, et de l'avancement des travaux de renouvellement par le biais de l'initiative Ottawa, on se déplace mise en place dans le budget 2012.

Dans le cadre de l'analyse, les besoins annuels de réinvestissements pour des immobilisations existantes ont été déterminés en utilisant une approche fondée sur le risque. La valeur des projets liés à la croissance dans les réseaux d'aqueduc et d'égouts était prévue. Des initiatives stratégiques que le Conseil a approuvées et qui découlent de nouvelles exigences réglementaires ou de modifications ont également été décrites. En conséquence, la Ville a évalué que pour les dix prochaines années, sa part des besoins en immobilisations au titre des réseaux d'aqueduc et d'égouts totalisait un investissement de 2,7 milliards de dollars. Le plan de financement élaboré dirige la Ville vers le niveau requis d'investissement pour la période de dix années.

Le plan de financement a été élaboré en se fondant sur les principes suivants :

- les frais de service de la dette (capital et intérêts) pour ce programme à haute intensité de capital devraient être fixés au maximum à 15 p. cent du budget annuel, un niveau supérieur à la limite courante du Conseil de 7,5 p. cent pour les autres services municipaux;
- l'émission des titres de créance se fera pour une durée qui correspond mieux à la durée de vie utile des immobilisations qu'ils financent, ce qui a l'effet de réduire l'incidence sur le fonctionnement annuel de l'émission des titres de créance;
- les hausses tarifaires requises liées aux réseaux d'aqueduc et d'égouts seront réduites autant qu'il sera possible de le faire et seront amorties sur la période de prévisions de dix ans afin de fournir de la prévisibilité aux contribuables.

Au total, le plan proposé entrevoit un investissement municipal de l'ordre de 2,1 milliards de dollars au cours de dix ans. Le plan mis de l'avant, dont il est tenu compte dans le budget provisoire 2012, traite d'un niveau supérieur d'investissements en immobilisations requis au cours des quatre premières années en optimisant l'utilisation des réserves et de la dette. À long terme, un financement annuel adéquat serait accessible pour répondre aux besoins annuels en dépenses d'immobilisations. Les hausses de revenus requises pour appuyer le plan sont de 6 p. cent en 2012, de 7 p. cent en 2013 et en 2014, de 6 p. cent en 2015 et en 2016 et de 5 p. cent pour toutes les années subséquentes. Ces hausses prévues incluent l'inflation.

Le Conseil révisera et adoptera les budgets de fonctionnement et d'immobilisations sur une base annuelle. Les plans futurs tiendront compte des examens annuels du Conseil. Il est important de noter que les besoins en dépenses et les plans de financement peuvent également être modifiés à l'avenir en conséquence des exigences législatives (Loi sur l'eau saine/Loi sur la protection de l'eau de source, règlement municipal sur les normes régissant les effluents des eaux usées) et du processus de planification de la Ville, dont le plan officiel, les plans directeurs de l'infrastructure et les plans directeurs des eaux pluviales.

INTRODUCTION

Long range financial plans (LRFP) are a hallmark of good financial planning. The City of Ottawa has undertaken three long range plans since amalgamation. These plans are updated at regular intervals to reflect new information such as changed priorities, adjusted pricing and any new legislated requirements. Since the last long range plan for water and sewer services, presented in 2007, the City has developed the Ottawa River Action Plan; has responded to the requirements of new legislation such as the Clean Water Act; and has had system failures which have required priorities to be adjusted. More significantly, the 2012 tax supported budget included the *Ottawa on the Move* initiative which advances reinvestment in the city's water and sewer pipe infrastructure. As water, wastewater and storm water services are all exclusively funded from revenues raised from the water bill, these services can be planned and analyzed separately from other City services.

In 2011 funds provided for the capital program, either as contributions to the capital reserves or for debt servicing repayments, represented 46% of the \$264 million rate budget. Given the capital intensive nature of water and sewer services and aging of the assets, future budgets will include significantly increased capital funding requirements. This LRFP refresh focuses on the capital requirements and their impact on the water/sewer rate.

BACKGROUND

LRFP III (2007) provided a 4 year operating budget pressure forecast and a 10 year capital forecast. The plan forecast that in 2010 the operating budget would increase by \$5.5 million, primarily to maintain existing services. The plan also forecasted that between 2007 to 2016, \$1.581 billion would be needed for capital works, with the renewal category at \$1.255 billion. The plan identified that in order to fund the capital needs identified at that time while also maintaining an average reserve balance of \$20 million over 10 years, a 9% combined net rate increase would be required in the period 2007 to 2010; 5% in each of the three years 2011 to 2013; and a 2% combined rate increase for 2014 to 2016.

This new Long Range Financial Plan, LRFP IV demonstrates that the capital renewal needs have increased significantly from LRFP III. These changes stem from growth in the network, inflation, new needs that respond to recent system disruptions, additional regulatory requirements, and the development of the Ottawa River Action Plan.

In 2010, the City prepared a long term financial plan for the water system, in accordance with Provincial legislation. That plan outlined the required capital works and associated funding requirements over the 2009 to 2019 period. The capital investment needs for the water system identified in the 2010 water plan have been incorporated into this LRFP. The spending needs identified in the 2010 water plan had resulted in forecasted water rate increase of 7% per year for the four year period 2011 to 2014 and 5% thereafter. A corresponding sewer plan was not required but background work conducted in 2010 has also assisted in formulating this LRFP.

Most other major Canadian cities have undertaken some form of long range financial planning which has identified that the level of capital investment in the water/sewer area is not sufficient

to fully keep the assets in a good state of repair. This has resulted in water/sewer rate increases above inflation as cities seek to close this “gap”. In Ontario, the Region of York has approved a rate increase of 10% for each of the next three years and the City of Kingston has approved a water rate increase of 9.5% and a 5.0% sewer charge rate increase for each of the next three years. Known annual rate increases across Ontario vary in the 8% to 10% range.

Rate supported capital works are mainly funded either from Contributions to Capital raised from the water/sewer bill, debt financing which is repaid along with related interest over extended periods of time from the water/sewer bill. Growth related projects are also funded from development charges collected from new development. Senior government funding may also be received in relation to specific approved projects. All figures quoted within this report refer to the City’s share of capital investments or net capital investment required, meaning that figures exclude development charges collected and senior government funding.

This objective of this report is to determine:

- Net Capital investment needs for the period 2012 to 2021
- An appropriate funding strategy that will meet those needs in the long term and reflects the capital intensive nature of delivering these services through long lived assets that serve multiple generations.

Capital Asset Profile

The current value of the City’s water and wastewater assets is over \$18 billion and accounts for approximately 50% of the City’s assets (excluding land). This includes over 8,000 kilometres of water, sanitary and storm sewer pipe inventory; two water purification plants (Lemieux and Britannia); and the Robert O. Pickard Environmental Centre (ROPEC) the City’s sewage treatment plant.

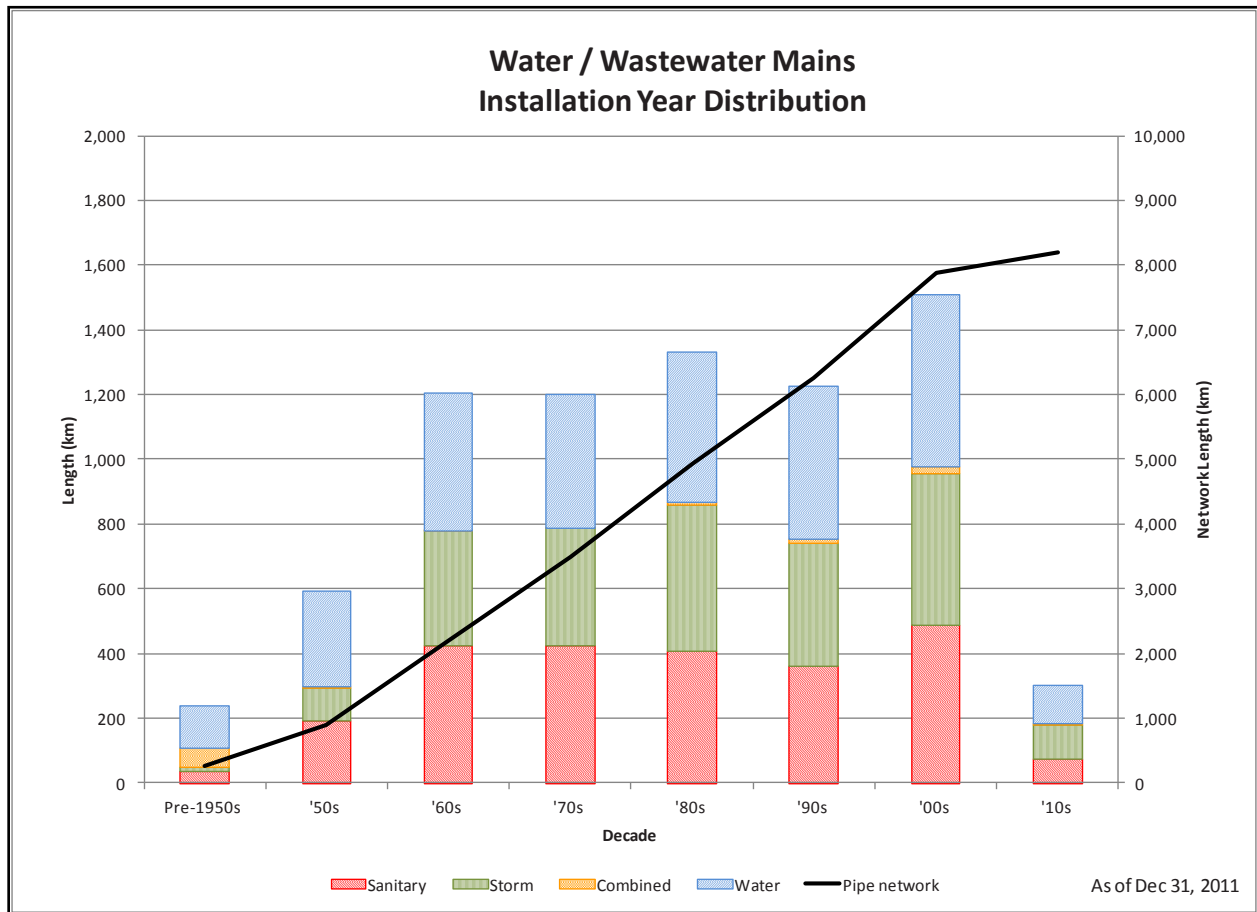
For financial reporting purposes, and in accordance with accounting policies prescribed by the Public Accounting Standard Board, these capital assets are stated at historical cost and are amortized over their useful life. At December 31, 2011 the historical cost of water and wastewater assets is \$5 billion and is amortized at a rate of approximately \$60 million per year. Of this historical cost value, approximately 6% was financed with debt.

A breakdown of these assets by category is as follows:

Approximate Replacement Value						
\$ '000	Total		Linear network		Treatment/Storage	
Water	\$ 6,845,000	37%	\$ 6,150,000	38%	\$ 695,000	34%
Waste Water	\$ 6,430,000	35%	\$ 5,310,000	32%	\$ 1,120,000	54%
Stormwater	\$ 5,125,000	28%	\$ 4,880,000	30%	\$ 245,000	12%
Total	\$18,400,000	100%	\$16,340,000	89%	\$ 2,060,000	11%

The City’s linear pipe infrastructure and treatment facilities have been acquired over time in relation to the City’s development.

The following chart shows the meters of pipe infrastructure in service today based on the decade in which it was acquired with most of the current infrastructure in service dating from 1950 and onward. The renewal pattern will not necessarily mirror the original investment pattern as described later under renewal.



Capital Investment Requirements

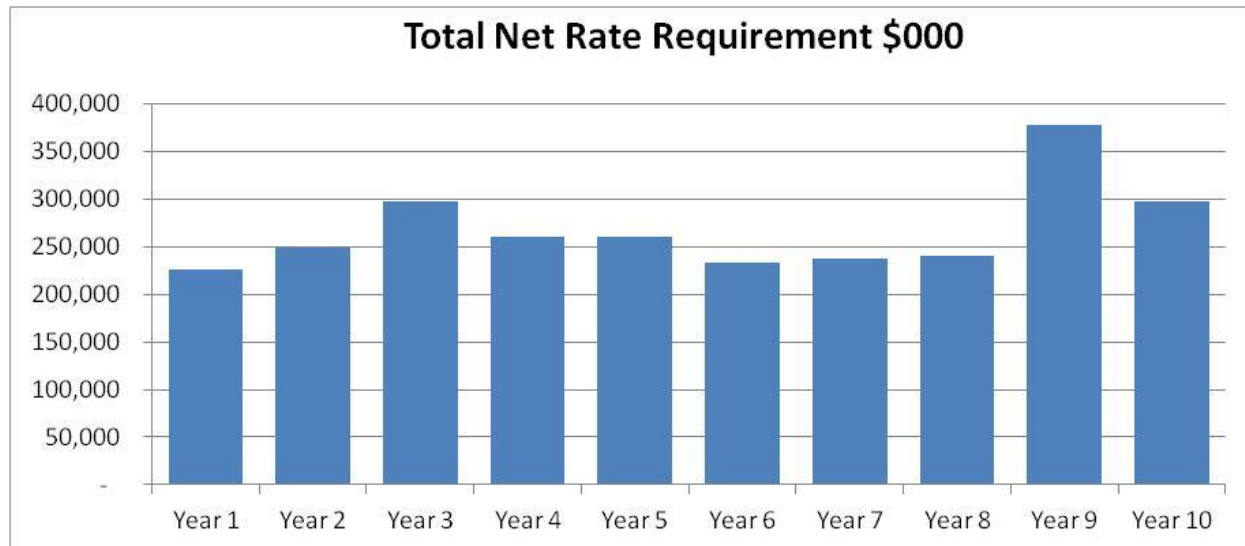
Investment requirements are a function of: renewal of existing assets to ensure they remain in a state of good repair and comply with current service level standards; growth related to new development; strategic initiatives established by Council; or new regulatory requirements.

To quantify the investment required over the next ten years, City staff have analysed the inventory of existing water and sewer assets; reviewed forecasted growth projects; and referenced strategic initiatives and regulatory requirements to the extent known.

Both the Capital Investment Requirements and the Capital Financing Plan plans have been presented on a “net” City requirement basis. External revenue sources such as those received from other levels of government and development charges collected in relation to growth projects are excluded. This provides a clear view of the City’s own financial responsibility with respect to developing a funding strategy.

A total investment of \$2.7 billion is required in this ten year timeframe for water and sewer infrastructure which equates to an annual investment of approximately \$250 - \$260 million in most years. A summary is as follows:

\$Millions	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Renewal	211.2	244.2	286.8	256.5	242.5	231.5	234.7	238.7	334.1	296.0	2,576.2
Growth	12.9	2.0	8.3	1.7	16.2	0.1	0.2	0.1	0.1	0.1	41.8
Strategic / Regulatory	1.9	2.9	2.9	2.1	1.7	1.8	2.3	2.0	44.0	1.6	63.2
Net Rate Requirement	225.9	249.1	298.0	260.3	260.4	233.4	237.2	240.8	378.1	297.7	2,681.2



Renewal

A risk based approach has been taken in determining the infrastructure renewal needs. While the age of the infrastructure is taken into account, other factors such as pipe material, soil types, condition assessment and watermain break history are taken into consideration. As such, an “old” pipe does not necessarily imply a “high priority” project nor does a “newer” pipe necessarily represent a “low” priority project. For example, extending the service life of local, small diameter watermains may increase the risk of a failure to occur prior to replacement. However, when weighed in comparison to the risk associated with the service life for singular larger diameter water transmission mains the greater consequence on the community must be considered. It is not deemed acceptable to “run to failure” large diameter transmission mains and collectors as the regulatory and service impact to the community is too significant. A more aggressive replacement requirement is necessary for these larger pieces of infrastructure.

For this reason, the yearly capital renewal program includes major projects to construct transmission mains prior to the projected end of service life.

Of the \$2.7 billion total needs identified, the vast majority or \$2.6 billion is for renewal. Linear (pipe) assets require \$2.1 million for renewal and includes: a provision for the combined storage tunnel (\$140 million) as part of the Ottawa River Action Plan; an ongoing program for a Condition Assessment of water and sewer assets; and an estimate for works required as a result

of the ongoing sewer and water reliability assessment program. The remainder of the renewal needs, totalling \$0.5 billion, is regarding vertical assets such as water and wastewater treatment facilities and pumping stations.

Growth

The capital growth needs were prepared based on projects that have been identified in the Development Charge Background study. Only projects that have a development charge component that is greater than 30% of the total authority requested have been categorized as growth related. Projects where the development charge component is 30% or less are usually classified as renewal projects with replacement assets' capacity expanded to service growth. These are captured in the renewal category.

Strategic Initiatives/Regulatory

The strategic initiatives category includes Council-directed initiatives identified in the City Corporate Plan. Strategic initiatives include projects that implement the various City master plans or enhance services currently being provided to residents, implement new legislative requirements, and respond to changes in demand for service. The Strategic Initiatives needs include \$42 million identified in 2020 for a Water Disinfection Program.

Updates

This ten year forecast has been updated from earlier plans to include the following:

- Advancement of \$178 million of water and sewer infrastructure renewal through the Ottawa on the Move program.
- An ongoing program to assess the condition of water transmission mains and trunk sewers, totaling \$60 million over 10 years and \$200 million over 10 years to deal with the results of these condition assessments
- 417 widening and resulting rate supported infrastructure investments
- Ongoing flood mitigation work
- The Ottawa River Action Plan

Initiatives included in this ten year forecast may be subject to change. Council reviews and approves operating and capital budgets on an annual basis. Capital investment requirements and related financing plans may also be adjusted as a result of new regulatory requirements (i.e. Clean Water Act/Source Water Protection Act, Municipal Wastewater Effluent Standards legislation) or as a result of the City's own planning process such as updates to the Official Plan and Infrastructure Master Plan, and development of the Stormwater Master Plan.

Capital Financing Strategy, Goals and Assumptions

Currently, the City's operating revenues provide funding of approximately \$120 million annually; \$104 million as cash contributions towards new water/sewer capital investments; and \$18 million towards debt service payments for previously financed capital investments. With a forecast of approximately \$250 million on average per year for capital investment requirements,

this leaves approximately \$130 million per year to be financed through a combination of reserve funds, debt financing and rate increases.

The funding strategy aims to strike the optimal balance between these sources and is guided by the following principles:

- Debt financing for the capital program will be set at a level sufficient to fund needed capital investment while not impacting the City's credit rating.
- A limit for debt servicing levels for the water and wastewater program will be set independently from those of other city services to reflect the more capital intensive nature of water and wastewater services.
- Longer terms for debt financing will be established for water and wastewater projects to better match the life of the assets they are funding. This will result in lower annual debt service payments that will be funded over a longer time period by both the current and future residents who will benefit from these assets.
- Capital reserves targets will be established from a long term perspective with the intention that they be achieved over a period of years. Reserves will be leveraged to the fullest possible extent to allow needed capital projects to proceed without delay.
- Reserve fund balances should have a target balance equal to one year's debt servicing costs for liquidity purposes.
- Rate increases required to fund water and wastewater programs will be minimized as much as possible and smoothed over the 10 year forecast period. This will provide ratepayers with some predictability of what increases they can anticipate from year to year.

Capital Financing Plan

The funding strategy allows the City to invest \$2.1 billion in water and wastewater assets over the ten year period through a combination of operating revenues and debt financing. By the year 2019, the City will have achieved a funding level of \$240 million per year from its own revenues. This funding level is based on the adoption of the funding strategies outlined in this document.

\$Millions	2012	2013	2014	2015	2016-2021	Total 10 Year
Base Program	154.6	148.9	194.1	172.3	1,287.5	1,957.4
Ottawa on the Move	178.3	-	-	-	-	178.3
Total Capital Request	332.9	148.9	194.1	172.3	1,287.5	2,135.7
Reserves	(257.8)	(88.9)	(100.5)	(114.5)	(1,113.6)	(1,675.3)
Debt Authority	(75.0)	(60.1)	(93.6)	(57.8)	(173.9)	(460.4)
	(332.9)	(148.9)	(194.1)	(172.3)	(1,287.5)	(2,135.7)

Of the proposed \$2.1 billion investment program, \$1.675 billion of funding will be raised from water and wastewater fee revenues, with the balance of \$460 million to be funded from issuing new debt.

Based on the above plan, annual debt servicing costs as a percentage of rate supported operating revenues grows from 7.9% to 12.8 % over the forecast period. When viewed from the context of

the City's overall debt picture, combined debt service costs as a percentage of total municipal revenues are limited to 8.5% which is viewed as reasonable and sustainable.

The impact of the Ottawa on the Move (OTM) program established in the 2012 budget is included in the above figures. The Ottawa on the Move (OTM) program requires \$178 million in rate supported funding. This will include \$75 million from debt financing and \$103 million from "cash" sources including existing reserves and annual capital contributions from operating revenues. Combined with debt previously approved under the tax component of OTM, total debt will be \$200 million against the \$340 million investment program. Debt will be issued in 2012 with debt servicing commencing in 2013.

Debt Servicing Targets

Current debt service costs of \$18 million per year will increase to approximately \$61 million or 12.8% of the annual water and wastewater operating budget by 2021.

Debt Servicing Costs (\$ millions) / As a Percent of Rate Revenues

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
21.8	25.8	28.3	31.4	38.1	41.4	46.3	50.4	53.1	61.3
7.9%	8.6%	8.9%	9.2%	10.5%	10.8%	11.4%	11.7%	11.7%	12.8%

This report recommends that Council amend the Fiscal Framework (2007) Targets for Debt to allow for principal and interest on rate supported debt to be limited to no more than 15% of rate supported revenues. This differs from the existing fiscal framework which requires that both the rate and tax supported debt service charges be limited to no more than 7.5% of revenues.

Water and wastewater services are primarily delivered through substantial capital investments that are used by many generations. To date, the degree of asset investment financed by debt has been relatively minimal, with only 6% of assets having been funded through debt. However, given the extent of renewal required in the upcoming years, debt financing must be considered as a greater part of a funding strategy. To limit the amount of debt that can be used to purchase or renew these assets puts a huge burden on current day ratepayers. The unique nature of these services necessitate a separate debt servicing level from those of other city services that are more labour rather than capital intensive. This is consistent with other utilities. For instance, a 2008 Survey: *NACWS – Financial Survey - A National Survey of Clean Water Agency Financing and Trends* was published by the National Association of Clean Water Agencies (US) and showed that debt service represented 28% of 2007 utility expenditures. The city's proposed plan remains well below such debt service levels.

As the City does not have a separate credit rating for water and wastewater services the impact of this change to the rate debt limit needs to be assessed in the context of the City's overall debt levels.

The rate revenues currently represent about 12% of combined rate and tax revenues. If rate supported debt servicing reaches the forecasted 13% of rate revenues, the combined city debt servicing limit for rate and tax supported debt would be 8%. Even if the maximum limit of 15%

for rate supported debt was reached, which is not forecasted within this plan time period, this would result in a combined 8.5% debt servicing percentage.

In conclusion, this proposed change in the debt servicing limits for rate supported spending is expected to have a manageable impact on the City's overall debt servicing as a percentage of revenues.

Reserve Fund Levels

Water and Wastewater reserve balances are forecasted to be \$56 million at the end of 2011.

The funding strategy sets a target for the reserve funds balances equivalent to one year of debt service payments. This provides a liquidity measure ensuring financial stability and which would support the City's favourable credit rating.

This is a long-term target with the intention that it be achieved over a period of years and provides flexibility in the annual use of reserves to fund needed capital projects to proceed without delay. Starting in 2017, reserves will reach the set target level equating to one year's debt servicing (principal and interest) payment requirement

Projected Year End Reserve Fund Balances (\$ millions)

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
0.6	5.0	5.5	8.0	28.8	58.8	58.8	60.8	48.6	61.9

The Water and Wastewater (Sewer) reserves had been managed as a single entity until 2007 when the Clean Water Act required that the water reserve be segregated. Staff have reviewed the projected spending needs and existing reserve balances of each program and are recommending that a transfer of \$10 million be made from the Water capital reserve fund to the Wastewater (Sewer) reserve. This transfer will address the current imbalance between the two reserves and provide adequate funding for each program to meet their projected investment requirements.

Credit Ratings

The City currently maintains an Aaa credit rating with Moody's Investors Service and an AA+ rating from Standard and Poor's.

The credit rating agencies look for the following items in preparing their credit analysis:

- A strong regulatory environment - which is the case in Ontario
- The strength of the local economy – Ottawa has a high income, stable work force
- A municipal Council that is willing to increase rates to meet its capital investment needs
- A commitment to long term financial planning
- That debt servicing costs are reasonable in relation to revenues, so that the City can meet its debt repayment obligations
- That liquidity is built into the financial framework through the use of reserves and investments
- Total debt levels as a percentage of the total budget are manageable.

The funding strategy being proposed respects these requirements while ensuring that the necessary capital works can be undertaken.

Projected Revenue Increases

The funding strategy contemplates a continued need to increase water and sewer revenues over the 10 year program. These increases are smoothed over the period so that there is some predictability for the public on the expected rate increase from one year to the next.

The following table shows the projected revenue increases over the ten year period. It is important to note that the projected rate increases include inflation.

Projected Annual Rate % Increases / Projected Annual Rate Revenues (\$ millions)

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
6%	7%	7%	6%	6%	5%	5%	5%	5%	5%
278.0	299.9	318.5	339.8	362.7	383.7	405.9	429.5	454.5	480.9

It should be noted that the above rate increases assume that consumption patterns remain constant. Council has directed staff to bring forward a report on the rate structure by 2013. The projections above reflect annual revenue requirements without consideration of changes to the rate structure.

As previous reports on the rate structure have indicated, there is a need to review the current rates which are entirely variable with consumption volumes as compared to expenditures that are largely fixed in nature. As capital spending increases and debt servicing becomes a larger proportion of the budget, this variable revenue source to fixed cost differential will only increase.

Administration of Capital Financing and Debt Policy

This report recommends that the current Administration of Capital Financing and Debt Policy - Objective 5, be revised to state the following: “The City’s practice will be to issue debt for a term that is consistent with, but will not exceed, the anticipated useful life of the underlying asset.”

In 2007, Council approved the Administration of Capital Financing and Debt Policy. The policy established objectives, standards of care, authorized financing instruments, reporting requirements and responsibilities for the prudent financing of the City’s operating and infrastructure needs. The Policy states that debt funding is considered an appropriate way to finance longer-life capital projects since future taxpayers who will benefit from the project will pay for it through future debt charges.

The Policy (Objective 1) requires that the City adhere to Statutory Requirements. Accordingly, in accordance with Provincial legislation, the term of capital financing may not exceed the lesser of 40 years or the useful life of the underlying asset. This requirement will remain as stated in the Capital Financing and Debt Policy.

The Policy (Objective 5) states that the City will match the term of the capital financing to the useful life of the related asset. The existing policy also states that the City's normal practice will be to issue debt for a term that does not exceed 20 years.

Water and Wastewater assets are long lived assets. They deliver services to today's residents and to future generations. For example, water main pipes, storm pipes and sanitary pipes may last up to 90 years, depending on the type of material used in their construction.

Given that many water and wastewater assets have useful lives that extend beyond 20 years this current limitation does not match the term of the debt with the useful life of the assets. By extending the debt term, future generations who benefit from these assets will also assist in funding these assets.

It is anticipated that debt will be issued for terms of 10, 20 or 30 years, depending on the useful life of the underlying asset. Debt issuance will not exceed a term of 40 years consistent with Objective 1 of the Policy and in compliance with the statutory limit established by the Municipal Act. In this LRFP, the debt term is assumed to be 30 years.

RURAL IMPLICATIONS

There are no rural implications as a result of this report.

CONSULTATION

The public consultation process will be incorporated with the review process for the 2012 Rate supported budget.

COMMENTS BY THE WARD COUNCILLOR(S)

Not applicable.

LEGAL IMPLICATIONS

There are no legal impediments to receiving and tabling this report and subsequently approving the recommendations at a later meeting.

RISK MANAGEMENT IMPLICATIONS

Not applicable.

CITY STRATEGIC PLAN

The Strategic Plan includes an objective of updating the Long Range Financial Plan: Water and Sewer Rate. This document establishes the goals and policy framework to guide water and wastewater rate increases over the next 10-years.

TECHNICAL IMPLICATIONS

Not applicable.

FINANCIAL IMPLICATIONS

Financial implications are identified within the report.

ACCESSIBILITY IMPLICATIONS

Not applicable.

SUPPORTING DOCUMENTATION

Not applicable.

DISPOSITION

Information contained in this report will be utilized during the annual budget setting process.

Action 9-2: Consider additional investments if funds become available

Implementation of projects not included in the Affordable Networks. The assumptions behind projected funding levels will be monitored on a regular basis. For instance, a key assumption is that all major transit projects will be co-funded equally by all levels of government—so if anticipated funding agreements are delayed then major transit investments would need to be reconsidered. Similarly, the unanticipated availability of revenues beyond those reasonably assumed would allow additional investments to be considered.

Exhibit 9.1 Capital Costs of New Infrastructure and Services: Affordable RTTP and Road Networks, Pedestrian Facilities, Cycling Network, (\$2013 millions)

Type	Capital cost
LRT+ Vehicles + MSF	2,360
BRT	317
O-Train+Vehicles+MSF	118
Transit priority	200
Road Network plus Intersection Modification	864
Cycling *	70
Pedestrian *	66**
Total	3,995

* Road project costs include the costs of integral cycling and pedestrian facilities.

** Includes major multi-use pathway structures

9.2 Affordable Life Cycle Costs

The estimated replacement value of the City's transportation infrastructure—including roads, bridges, walkways and rapid transit facilities—was about \$13 billion in 2012. These assets are continuously deteriorating, and will eventually require rehabilitation or replacement. With limited budgets and increasing demands on the transportation network, the City is challenged to manage its assets in a way that minimizes total life cycle costs and sustains expected levels of service.

In addition, the life cycle costing approach adopted for this plan includes the incremental costs of renewing and rehabilitating new transportation infrastructure, which are estimated to be between \$70 and \$90 million for the period to 2031. The full life cycle costs of new infrastructure have been incorporated into the City's financial model.

Through the adoption of the Comprehensive Asset Management Strategy in October 2012, Council confirmed the required investment levels to keep the City's assets in a state of good repair. In light of this, the funds required to maintain this state were the first priority in the determination of affordable funding envelopes for new infrastructure.

Action 9-3: Implement the City's Comprehensive Asset Management Strategy

About Comprehensive Asset Management. Comprehensive Asset Management (CAM) is the effective management of all tangible capital (physical) assets that the City uses, directly or indirectly, to deliver services to its customers. Key objectives of the City's CAM program include reducing life cycle costs while maintaining assets in a safe condition, improving service to customers, and delivering agreed-upon levels of service. The CAM program will enhance the justification of infrastructure investment decisions, demonstrate the long-term impact of short-term decisions, and link infrastructure decisions to service outcomes.

The Strategy. The City adopted a guiding CAM policy and an implementation-focused *CAM Strategy* in 2012. The CAM policy defines Council's expectations around the management of the City's physical assets, and is expected to remain relatively constant over time. The *CAM Strategy* articulates senior management's commitment to implementing the CAM policy including the necessary resources and timescales for implementation, and will evolve in response to internal and external changes or challenges faced by the City. This CAM approach allows the City to define:

- The inventory and value of the assets needed to support the delivery of services
- The asset condition and expected remaining service life
- The level of service expectations, costs, and what needs to be done to achieve those levels

- The interventions required on the assets, and when these are most appropriate to ensure assets remain safe for sustained the service
- The cost to acquire, operate, maintain and renew while maintaining an acceptable level of risk
- The appropriate investment levels to ensure long-term affordability

In the CAM program's 2012 *State of the Asset Report*, Ottawa's transit assets were assigned a replacement value of \$1.95 billion, and were rated as being in good to fair condition overall. Ottawa's roads, bridges, pathways and other transportation facilities were assigned a replacement value of \$11.1 billion, and were rated as being in fair condition overall.

Action 9-4: Recognize the impact of new infrastructure on maintenance activities

About maintenance activities. Infrastructure maintenance services reduce life cycle costs while they improve safety, sustain desired levels of service and protect the natural environment. The City delivers maintenance services—asphalt and concrete repairs, winter snow and ice control, and sweeping and litter control—to its paved or surface-treated roads, gravel roads, sidewalks and pathways, bridges and the Transitway. In doing so, it must consider public expectations, budget constraints and best practices in risk management. The City's maintenance service level standards, which define the extent and timing of related activities, are categorized into the following groups:

- *Public safety services and standards* – that impact the safety of pedestrians, cyclists and vehicles. The City's Maintenance Quality Standards are based on the provincial *Minimum Maintenance Standards for Municipal Highways*
- *Infrastructure preservation services and standards* – that reflect the City's need to protect capital assets, and that are financially justified by life cycle cost impacts
- *Quality of life services and standards* – that enhance the quality of life for Ottawa residents and visitors (such as street sweeping, and sidewalk maintenance), and offer some flexibility with regard to performance standards

5.3 Operating Costs

Exhibit 5-4 reflects benchmark annual road operating costs derived through consultation with City staff. These costs were applied to each road project to determine the incremental increase in operating cost within the 2031 horizon.

Exhibit 5-4: Benchmark Annual Road Operating Costs

Type of Operations	Operating Cost Estimate (2013\$)
Roadway (summer & winter mtc) - Rural	\$ 9,077 / km / lane
Roadway (summer & winter mtc) - Urban	\$ 15,051 / km / lane
Roadway (signs & pavement markings)	\$ 1,439 / km / lane
Street Lights (18 per side/km) - Urban	\$ 6,264 / km
Sidewalks and pathways (S/W both sides) - Urban	\$ 10,738 / km
Winter bike lanes - Urban	\$ 22,720 / km
Roadway (summer & winter mtc) - Rural	\$ 9,077 / km / lane

Lifecycle operating and maintenance costs were then calculated for each project based on its implementation phase (as described in Chapter 6): Phase 1: 2014-2019, Phase 2: 2020-2025, Phase 3: 2026-2031, and beyond 2031. The resulting total operating costs for the projects in the three implementation phases is estimated at \$11.69M, \$10.37M, and \$2.18M, respectively, between the year they are built and 2031.

5.4 Rehabilitation Costs

Exhibit 5-5 reflects benchmark road rehabilitation costs derived through consultation with City staff. These costs were applied to each project to determine the incremental increase in rehabilitation cost of each road project, by multiplying the benchmark cost by the number of lanes and dividing by the rehabilitation cycle.

Exhibit 5-5: Benchmark Road Rehabilitation Costs

Basic Rehabilitation Item	Cost Estimate (2013\$)
Minor Rehabilitation – Micro Surfacing	\$ 30,000 /km/lane
Major Rehabilitation – Mill and Overlay	\$ 92,500 /km/lane

The rehabilitation cost for each project up to 2031 was then allocated by phase. Road rehabilitation projects are typically only undertaken every 5-10 years for minor work and 15-20 years for major work; these costs were annualized and multiplied by the number of years between the road's construction and 2031. The resulting total rehabilitation cost for projects in each phase (and those beyond 2031) is estimated at \$6.94M, \$4.81M, and \$1.32, respectively.

6.3 Lifecycle Costs

Lifecycle cost analysis is a technique used to account for all costs associated with a project over its lifetime. Typically, infrastructure lifecycle costs consist of three components: capital, operating/maintenance, and rehabilitation. For this analysis, capital costs were those associated with the construction of new infrastructure and the purchase of rail vehicles. Bus purchase costs were omitted because they are not directly affiliated with the rapid transit and transit priority network (that is, they can be used for other purposes). Operating and maintenance costs are those costs associated with the year-to-year operation of the line, such as employee salaries, fuel, upkeep, overhead, and other items. In contrast, rehabilitation costs are those associated with major repairs of infrastructure over the life of the project.

In the context of planning transit infrastructure, an analysis of lifecycle costs is particularly useful because of the influence of ongoing costs on affordability and cash flow. Some transit modes have low capital costs, but higher ongoing operating and maintenance costs. The reverse is also true: investing more money upfront can lead to future savings in operating costs.

Below, Table 6.3 presents the capital, operating, and rehabilitation costs for each mode between project construction and 2031 (the horizon of this TMP). Investments are presented in the dollar amounts of the year that they are assumed to occur. The results highlight the importance of considering operating costs: the construction of faster transit service and introduction of larger vehicles results in a reduction in vehicle-hours (and, hence, dollars).

Table 6.3 – Incremental Transit Lifecycle Costs

Mode	Capital Cost (including vehicles)	Annual Operating Cost	Annualized Rehabilitation Cost	Cumulative Cost to 2031
LRT	\$2,360M	-\$19M	\$4M	\$2,205M
BRT	\$317M	-\$0.6M	\$0.2M	\$310M
O-Train	\$117M	\$4M	\$1.5M	\$184M
Transit Priority	\$200M	-\$2.4M	\$0M	\$178M
TOTAL	\$2,995M	-\$20M	\$6M	\$2,877M

6.3.1 Operating and Maintenance Costs and Savings

Operating and maintenance costs were developed in consultation with OC Transpo. For each LRT corridor, the number of bus-hours to be saved and the number of new train-hours were estimated. Savings were then calculated under the assumption of \$110 per bus-hour and \$450 per train-hour. All LRT lines were assumed to be operational by 2022.

For BRT and transit priority projects, savings were calculated in consideration of the improvements to travel time; the reduction in travel time was multiplied by \$110 per bus-hour to obtain the total savings. The Baseline and West Transitway BRT facilities were assumed to be open by 2016, while the Kanata North BRT was assumed to be open by 2022.

Operating and maintenance costs for the extension of the O-Train were derived from a 2012 report submitted to City Council assessing the feasibility of the extension. The report estimated that, net of bus-hour savings, the extension would cost an additional \$4M per year to operate. The extension was assumed to be open by 2018.

6.3.2 Rehabilitation Costs

For rail projects, a review of rehabilitation cost estimates for similar systems found that, for projects with a similar station density, the annual rehabilitation cost is approximately \$200,000 per km, per year of operation. The affordable network consists of some 20km of new rail, with 10 years anticipated between construction and 2031 for a total rehabilitation cost of \$40M. Similar assumptions were used for the O-Train, which yielded an assumed \$15M total rehabilitation cost.

The rehabilitation costs for BRT were derived from the City's standard rates for per kilometre road operating costs. These values, in the order of \$19,000/km/annum were multiplied by a factor of four to account for the rehabilitation of stations, structures, and other elements of the running way. This resulted in an operating cost of approximately \$3M.

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capacity for growth. Consideration needs to be given to how priorities for both water and wastewater projects are determined. Lastly opportunities for IMP renewal and growth projects need to be coordinated with the various transportation projects, e.g. road reconstruction, to achieve maximum cost benefit and affordability. *Table 7.1* summarizes the results of the priority assessment and details the major IMP growth project costs by implementation phase. This cost summary accounts for the projects recommended in the recently completed Water Purification Plant Development Plan, and the preliminary draft ROPEC Development Plan. It should be noted that *Table 7.1* does not include all infrastructure projects that will be subject to development charges, such as local development-driven infrastructure, and renewal-driven projects as described in *Section 5.1*.

Table 7.1: Infrastructure Master Plan Growth Project Phasing

Type	Phase 1: 2013-2018	Phase 2: 2019-2024	Phase 3: 2025-2031	Total
Water	\$299 M	\$242 M	\$70 M	\$611 M
Wastewater	\$322 M	\$222 M	\$235 M	\$779 M
Total	\$621 M	\$464 M	\$305 M	\$1,390 M

Note: Updated cost estimates for SWM growth-related projects to be provided in the 2014 update to the Development Charge By-law.

7.2 Financing Strategies

The Long Range Financial Plan IV - Water and Sewer Rate Supported Programs (January, 2012) ACS2012-CMR-FIN-0004 established a series of financing strategies that balanced the need to maintain and build capital assets with the need to manage debt, reserve balances and rate increases. It successfully made the case that debt financing must be considered as a greater part of the City's overall funding strategy, particularly in light of the high level of renewal required in upcoming years. As such, Council approved an increase to the Fiscal Framework (2007) Targets for Debt to allow for principal and interest on rate supported debt to be limited to no more than 15% of rate supported revenues. In 2013 the ten year capital and operating requirements were updated as part of the 2013/2014 Rate Supported Budget and followed the financing strategy as set out in the LRFP IV.

The City's ability to increase capital investment beyond projected levels is limited. The last LRFP funding strategy already contemplates a continued need to increase water and sewer rates in the range of 5 -7%. The City's debt service levels will also rise over the next nine years and, while remaining below the new target limit of 15% of own source revenues, must be closely managed so as to allow the City to maintain its

favourable credit rating. Reserve fund balances are low in the near term and well below the targeted levels. Water consumption has fluctuated and can further impinge on the City's revenues and forecasted rate increases. The City, like many other Canadian municipalities must monitor and manage the significant level of capital requirements regarding these services to ensure that they remain affordable.

The sources of financing required to support infrastructure investment are identified in the City's Long Range Financial Plan as described in the sub-sections below.

7.2.1 Revenue from Rates

The sole source of revenue for the operation and maintenance of the water, wastewater and stormwater systems is from water/sewer billing. Additionally, water/sewer billing must fund the City's share of capital infrastructure requirements for water, wastewater and stormwater assets. For the water system this consists of the water rate and associated fire supply charge. For the wastewater system, this consists of the sewer surcharge.

In order to ensure that the LOS is maintained, it is important, as both the water and wastewater systems continue to grow and age, that the rates set are appropriate and sustainable to support the need for ongoing operation and maintenance including resourcing.

The operation and maintenance of the stormwater system is also supported from the sewer surcharge revenue. There is some concern that there is not a direct link, from a user pay perspective, between the funds collected as part of the sewer surcharge which is based on a percentage of water usage and the funds required to operate and maintain the stormwater system. Moving forward, consideration needs to be given to developing a separate rate to support stormwater which could be based on the quantity of stormwater generated from individual properties as this has a direct impact on the stormwater collection and treatment systems.

Action:

- The City will assess the mechanisms available to support the operation and maintenance of its stormwater systems and determine whether a user specific rate should be developed to support this infrastructure.

7.2.2 Revenue from Development Charges and Grants or Subsidies

The major source of revenue for the growth related component of water, wastewater projects come from Development Charges, grants or subsidies. Other rates, such as a frontage rates, or areas specific rates, are for cost recovery of specific services provided which includes SWM. Development Charges revenue can only be used for growth related projects that are defined under the Development Charges By-Law. This By-law is updated every five years and will be updated in 2014.

Development Charges for water and wastewater projects are held in separate reserve funds. Reserve funds are differentiated by whether the project is a benefit city wide, inside the Greenbelt, outside the Greenbelt or to the serviced rural area. The reserve funds are maintained to buffer fluctuations in timing of cash inflow and outlay. For water and wastewater projects required in areas which will be subject to intensification, identifying the component of the project that is growth related is important so this component can be captured in the Development Charges By-law. *Annex A.2* contains the water and wastewater project sheets which summarize the projects and details the estimated breakdown of funding required between the rates and Development Charges.

Grants and subsidies from either the Federal and/or Provincial governments may be available from time to time for special capital projects (either renewal or growth). Unless there has been a funding commitment provided from the other levels of government, it is generally not assumed that they will be available to fund the capital water and wastewater projects.

Action:

- The City will update the 2014 Development Charges background study regarding Water, Wastewater and Stormwater services to reflect the requirements identified in the IMP.

7.2.3 Debt Financing

The other significant source of financing is through debt. Council has recognized the need to utilize debt in order to meet the upcoming significant renewal requirements in regards to water, wastewater, and storm water assets. Debt is also an appropriate way to finance longer-life capital projects since future taxpayers who will benefit from the project will pay for it through future debt charges.

Actions:

- Front-ending and negotiated agreements will be used to facilitate the construction of infrastructure required to support more than one development.
- Development Charges will be used as the major source of funding to construct infrastructure for greenfields development.

DRAFT

APPENDIX F
DEVELOPMENT CHARGE ECONOMIC IMPACT MATERIAL

1. GENERAL CONSIDERATIONS

1.1 A significant policy issue and recent trend faced by many Ontario municipalities relates to the widespread impetus to increase the development charge quantum. This is in response to rapid growth and increasing needs for service, some of which is not coverable by DCs (i.e. the needs of exempt development, ineligible costs and services and expenditures beyond the historical service level cap or which partially benefit existing development). This circumstance restricts municipalities' ability to finance any additional DC reductions.

This need should, however, be also considered in the light of the potential impact of provincial and local economic and market conditions.

1.2 The following summarizes the results of previous research conducted by Watson & Associates concerning the potential impact of (increased) development charges on economic development.

- a) Many municipalities impose the full residential DC and, in some cases, discount or exempt only a portion of their non-residential (i.e. industrial/commercial) charges, in the interests of attracting more of such development. Their policy position, implicitly or explicitly, is that the rate of industrial and/or commercial development may be impacted by the quantum of their DCs. Their actions suggest that this may not be the case with residential development, or at least that the "growth pays for growth" philosophy is expected to be more operative for that form of development.

Residential Development Impacts

- b) A change in DC quantum is thought by many to reflect itself directly and automatically on house prices. However, in a strong market, house prices reflect demand pressures relative to supply, more than a simple cost recovery formula. DC increases are inevitably absorbed in pricing (and/or land purchase), but may not always be a significant determinant of such pricing, due to overall market dynamics. However, in poor markets, house prices may be unable to fully absorb DC increases. As a result, DC increases may impact profits and/or construction activity. Over a longer period of time, DC increases may result in compensating land price decreases, where the selling price of the final product cannot be increased sufficiently. This is particularly the case where there is a high "value-add" to the undeveloped land value.
- c) The potential impact of DC quantum shifts on the residential housing market is also impacted by the competitive environment and by the price and nature of the housing involved. For example, Ottawa imposes among the highest development charges in Eastern Ontario; however, its national presence, land costs, building forms, planning

process, tax rates, municipal and commercial service levels and lifestyle vary significantly within this market and affect demand. It is the cumulative effect of these socio-economic forces which determines whether an addition to Ottawa's residential DCs will diminish its rate of residential growth. This, in turn, raises the question of whether a small reduction in residential growth, resulting from an increase in DC quantum which better equips the City to fund its growth-related servicing needs, is an acceptable trade-off.

- d) Housing projects which are geared to the rental market, affordable or assisted housing, or sites which are expensive to service or remediate, could be impacted by a significant increase in DCs. For example, a DC increase of \$5,000 is only 2% of a \$250,000 housing price, but at the margin, that may be the difference between an acceptable financial return and one which is not. Thus, there are likely to be housing projects which are made less feasible as a result of a significant increase in DCs.
- e) When one plots DC quantum against residential development activity amounts in different municipalities, a direct cause and effect relationship is not apparent. That is, in part, because municipalities which are attractive, high growth areas, are able to impose high DCs as part of maintaining high service levels without tangibly diminishing demand. Municipalities with lower market appeal tend to moderate DCs in the hopes of encouraging more growth. However, the primary determinants of the amount of residential development in a municipality generally relate more to serviced/zoned land availability, amenity/lifestyle, access to job opportunities, etc.

Industrial/Commercial Development Impacts

- f) The decision as to whether or not Ottawa should establish full cost recovery industrial/office/institutional development charges and, if so, how high they should be and whether they should vary between industrial and commercial uses and different geographic areas are important policy issues. Essentially, it involves a trade-off between increased capital contributions (which must otherwise come from property taxes and/or user rates) and a potential deterrent of indeterminate size to new and expanded economic development activity within the City.
- g) The potential impact of DC quantum shifts on the industrial and commercial market is also impacted by the competitive environment and by the price and nature of the development involved. Land costs, building forms, the planning process, ease of construction, tax rates, municipal and commercial service levels and lifestyle also vary significantly between markets. It is the cumulative effect of these socio-economic forces which determines whether a significant increase to Ottawa's industrial and commercial DCs will diminish the rate of growth.

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- h) Since DCs provide a one-time contribution, while property taxes establish an on-going revenue stream to municipalities, this, in turn, raises the question of whether a reduction in industrial and commercial development, resulting from an increase in development charges, improves or diminishes the City's financial position.

Industrial and commercial properties are generally acknowledged as paying more in property taxes than the cost of the municipal services they consume. It is this net positive contribution to municipal revenues that helps support the services and programs the City provides to its residents. The long-term fiscal sustainability of such municipal services is therefore benefited by maintaining a strong industrial and commercial property tax base.

- i) Municipalities are generally more concerned with attracting industrial/office development, than with residential development, because the former brings local jobs, commercial services, no increased need for some municipal services, economic stimulus and more highly taxed assessment.

In this regard, industrial and head office development is often given added attention, in comparison with retail and service sector employment, which is generally "population-related." The latter is more captive to urban population centres than industry (for example, the automotive industry, which has located plants in smaller communities such as Alliston, Cambridge and Ingersoll).

In addition, higher employee densities and road trip generation mean that full cost recovery involves lower DCs for industrial development, than for commercial.

- j) Industrial site selection analysis generally focuses on non-financial matters, such as transportation access to markets, proximity to labour and suppliers, quality of life/image/amenity and the suitability of the available real estate. Financial matters are often somewhat less important and relate more to land and construction cost, as well as property tax and utility rate costs. DCs are a relatively small component of the latter, but at the margin, can have an impact on a cumulative basis, particularly where property taxes are relatively high.

- k) "Market optics" can play a role in a municipality's ability to attract industrial/commercial development. This often relates more to planning approval matters, but having discounted DCs, can be part of sending out a favourable message – once again at a price.

2. OTTAWA MARKET IMPLICATIONS

2.1 There are several relevant questions to be addressed with respect to the market implications of development charges, as part of considering the impact of a potential increase in the charges.

These are:

- a) Is the proposed DC quantum beyond the norm for other municipalities (particularly large municipalities) in Eastern Ontario and beyond?
- b) Are Ottawa's proposed development charges trending in the same general percentage relationship to local house prices, rents or other market indicators as in the past?
- c) Is the Ottawa development market functioning reasonably, or is it in decline, such that a significant development charge increase could be expected to have negative implications on the industry?
- d) What is the anticipated impact of an increase in development charges on different forms of development activity in Ottawa?

These questions are addressed, in turn, below:

Is the proposed DC quantum beyond the norm for other municipalities (particularly large municipalities) in Eastern Ontario and beyond?

2.2 Development charges in Ottawa are currently \$25,315 per single detached unit Outside the Greenbelt, \$16,891/SDU Inside the Greenbelt and \$16,082/SDU for serviced rural development. In the case of the Ottawa hinterland, development charges are in the \$15,000-\$20,000 per single detached unit in Kingston, North Grenville (outside Kemptville) and Russell and in the \$10,000-\$15,000 range in Carleton Place, Mississippi Mills, Clarence-Rockland, and Casselman.

2.3 In Niagara Region, municipal development charges are in the \$20,000-\$25,000 per single detached unit range in Lincoln, Pelham, Fort Erie, Grimsby and Niagara Falls, and in the \$15,000-\$20,000 range in Niagara-on-the-Lake, Port Colborne, West Lincoln, Thorold and Welland.

2.4 In Waterloo and vicinity, development charges are in the \$25,000-\$30,000 per single detached unit range in Cambridge, Guelph and Kitchener.

2.5 In the Greater Toronto Area, the average development charge per single detached unit is \$49,242 and the median is \$52,151 (including approx. \$2,000/SDU in Education Development Charges).

2.6 Based on this information, it is concluded that Ottawa's (Outside Greenbelt) residential development charges are well below GTA charges and generally consistent with, but in some cases somewhat above, the charges found in the rest of the sample. Ottawa's size, service levels and growth rates are similar to what is found in the GTA rather than in most of the other municipalities sampled.

Are Ottawa's proposed development charges trending in the same general percentage relationship to local house prices, rents or other market indicators as in the past?

2.7 Table 1 compares new home selling prices for single detached dwellings with Ottawa development charge.

TABLE 1
DC:HOUSE PRICE RELATIONSHIP IN OTTAWA

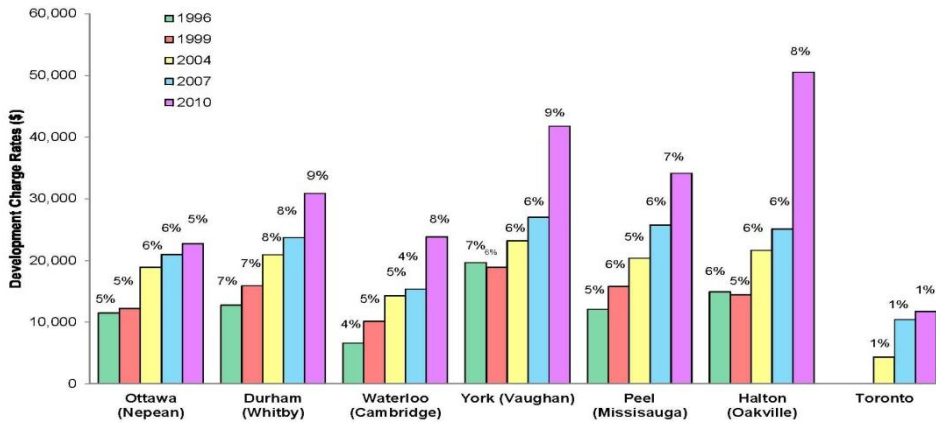
	Median Price	Outside Greenbelt DC	%	Average Price	Outside Greenbelt DC	%
2010	\$419,990	\$20,472	4.9	\$431,729	\$20,472	4.7
2011	455,990	21,303	4.7	478,292	21,303	4.5
2012	461,900	22,485	4.9	482,586	22,485	4.7
2013	472,518	25,315	5.4	488,000	25,315	5.2
2014 est.	482,000			494,000		

2.8 From this four-year sample, it is apparent that the DC:House Price percentage relationship was quite constant 2010-2012, but increased by 0.5% in 2013. This is, in part, due to the phase-in of the full DC calculated in 2009 in Ottawa.

2.9 Figure 1 was excerpted from the Province's November 29, 2013 Development Charges Review Consultation document. It indicates that development charges have represented an increasingly large portion of new home prices 1999-2010 in Ottawa and in the other six major markets sampled.

FIGURE 1

Development Charges and Cost of New Housing



Note: Toronto data for 1996 and 1999 was not available .

The chart indicates the impact development charge have on the cost of new housing. For example, for Mississauga development charges have historically comprised 5 to 7 percent of the cost of a new house.

Source: Information for 1996, 1999, 2004 was compiled for the Ministry by CN Watson and Associates. Data for 2007 and 2010 was prepared by the Ministry of Municipal Affairs and Housing based on municipal development charge by-laws and housing price data from CMHC.

Is the Ottawa development market functioning reasonably, or is it in decline, such that a significant development charge increase could be expected to have negative implications on the industry?

2.10 One approach to answering this question is to be found in the time series measuring volume of annual development activity in Ottawa, as set out in Table 2.

TABLE 2
CITY OF OTTAWA BUILDING PERMIT ISSUANCE

	RESIDENTIAL DEVELOPMENT (UNITS)				NON-RESIDENTIAL DEVELOPMENT (2012 Millions \$)			
	SINGLE AND SEMI DETACHED	MULTIPLES	APARTMENTS	TOTAL	INDUSTRIAL	COMMERCIAL	INSTITUTIONAL	TOTAL
2002	3,729	2,214	1,234	7,177	51.5	516.7	253.1	821
2003	3,043	2,317	1,151	6,511	20.0	590.7	175.9	787
2004	3,166	2,562	1,512	7,240	17.7	492.3	145.8	656
2005	2,443	1,648	840	4,931	34.4	406.4	663.5	1,104
2006	2,525	1,737	717	4,979	34.4	510.3	311.9	857
2007	3,171	2,435	1,214	6,820	53.9	467.5	346.2	868
2008	2,926	2,637	1,300	6,863	24.9	443.0	224.4	692
2009	2,455	2,536	1,775	6,766	106.1	504.1	235.2	845
2010	2,326	2,248	2,248	6,822	36.7	557.6	234.1	828
2011	2,347	2,334	1,593	6,274	17.8	535.5	192.1	745
2012	1,718	2,166	2,283	6,167	29.5	783.5	229.4	1,042
2013 est. ¹	1,678	1,273	2,174	5,125	18.3	740.5	169.3	928
2002-12 average	2,714	2,258	1,442	6,414	38.8	528.0	273.8	840.6

¹ First 9 months + 25%

2.11 Residential building permit issuance data indicates that the total number of units has been in the 6,167-6,863 range during the past six years, declining somewhat 2011/12 and to a more significant extent in 2013 (based on actual data to the end of September).

2.12 The decline has been largest in the case of single and semi-detached units in 2012/13 and in multiples 2013 year to date.

2.13 CMHC data for the Fall of 2013 (Table 3) addressed residential starts and did not forecast a decline in 2013 but called for a 1,000 unit reduction in apartment starts in 2014.

2.14 CMHC data forecast a small increase in net migration to Ottawa in 2014, a small decline in the unemployment rate and a small increase (0.25-0.5%) in five year mortgage rates. These are generally positive economic outlooks.

2.15 Industrial building investment in new or improved facilities, including additions, has been at or below ten year average levels for the past four years (Table 2). Commercial activity has been at or above ten year average levels for several years. Institutional building investment has been below ten year average levels for six years.

2.16 Average single detached house prices have increased by 13% 2010-2013 and median prices have increased by 12.5% (Table 3). Ottawa's Outside the Greenbelt development charges increased by 23.7% during that interval. This reflects the fact that the City phased in the 2009 DC increase over the 2009-13 period, rather than putting it all in place in 2009.

What is the anticipated impact of a significant increase in development charges on different forms of development activity in Ottawa?

2.17 The answer to this question varies with the type of development and local circumstances. The development charge must be funded and the revenue must be absorbed by:

- the selling price or commercial/industrial rent, and/or
- a land price reduction, and/or
- a reduction in other production costs, and/or
- a reduction in developer/builder profits.

2.18 To the extent that the DC increase makes its way into the selling price/rental rate (which is assumed to be the normal course of events) this would impact the purchaser, in terms of mortgage costs and the developer/builder, in terms of market size. Every \$1,000 increase in the house prices can be expected to translate into an \$80 increase in annual mortgage payments (based on a 5% interest rate and 20-year amortization) and a commensurate increase in the equity and/or income required by a purchaser.

2.19 In some cases, this can be expected to have a marginal impact on the size of the City's housing market.

TABLE 3

Housing Market Outlook - Ottawa (Ontario part of Ottawa-Gatineau CMA) - Date Released - Fall 2013

Forecast Summary Ottawa CMA Fall 2013							
	2010	2011	2012	2013f	% chg	2014f	% chg
New Home Market							
Starts:							
Single-Detached	2,302	2,134	1,592	1,600	0.5	1,650	3.1
Multiples	4,144	3,660	4,434	4,700	6.0	3,700	-21.3
Semi-Detached	362	361	286	385	34.6	350	-9.1
Row/Townhouse	1,928	1,826	1,379	1,565	13.5	1,600	2.2
Apartments	1,854	1,473	2,769	2,750	-0.7	1,750	-36.4
Starts - Total	6,446	5,794	6,026	6,300	4.5	5,350	-15.1
Average Price (\$):							
Single-Detached	431,729	478,292	482,586	488,000	1.1	494,000	1.2
Median Price (\$):							
Single-Detached	419,990	455,990	461,900	472,518	2.3	482,000	2.0
New Housing Price Index (% chg) (Ottawa-Gatineau)	4.0	3.0	2.6	1.2	-	2.0	-
Resale Market							
MLS® Sales	14,586	14,551	14,497	14,000	-3.4	14,140	1.0
MLS® New Listings	25,061	25,949	28,332	29,750	5.0	29,000	-2.5
MLS® Active Listings	50,804	64,177	70,126	72,600	3.5	71,000	-2.2
MLS® Average Price (\$)	328,439	344,791	352,610	356,000	1.0	358,000	0.6
Rental Market							
October Vacancy Rate (%)	1.6	1.4	2.5	3.2	0.7	3.0	-0.2
Two-bedroom Average Rent (October) (\$)	1,048	1,086	1,115	1,140	2.2	1,150	0.9
Economic Overview							
Mortgage Rate (1 year) (%)	3.49	3.52	3.17	3.00 - 3.50	-	3.25 - 3.75	-
Mortgage Rate (5 year) (%)	5.61	5.37	5.27	5.00 - 5.50	-	5.25 - 6.00	-
Annual Employment Level	519,000	521,900	539,100	528,500	-2.0	531,000	0.5
Employment Growth (%)	3.1	0.6	3.3	-2.0	-	1.9	-
Unemployment rate (%)	6.5	5.6	6.2	6.4	-	6.2	-
Net Migration	10,035	7,796	7,800	8,500	9.0	9,000	5.9

MLS® is a registered trademark of the Canadian Real Estate Association (CREA).

Source: CMHC (Starts and Completions Survey, Market Absorption Survey), adapted from Statistics Canada (CANSIM), CREA, Statistics Canada (CANSIM)

NOTE: Rental universe = Privately initiated rental apartment structures of three units and over

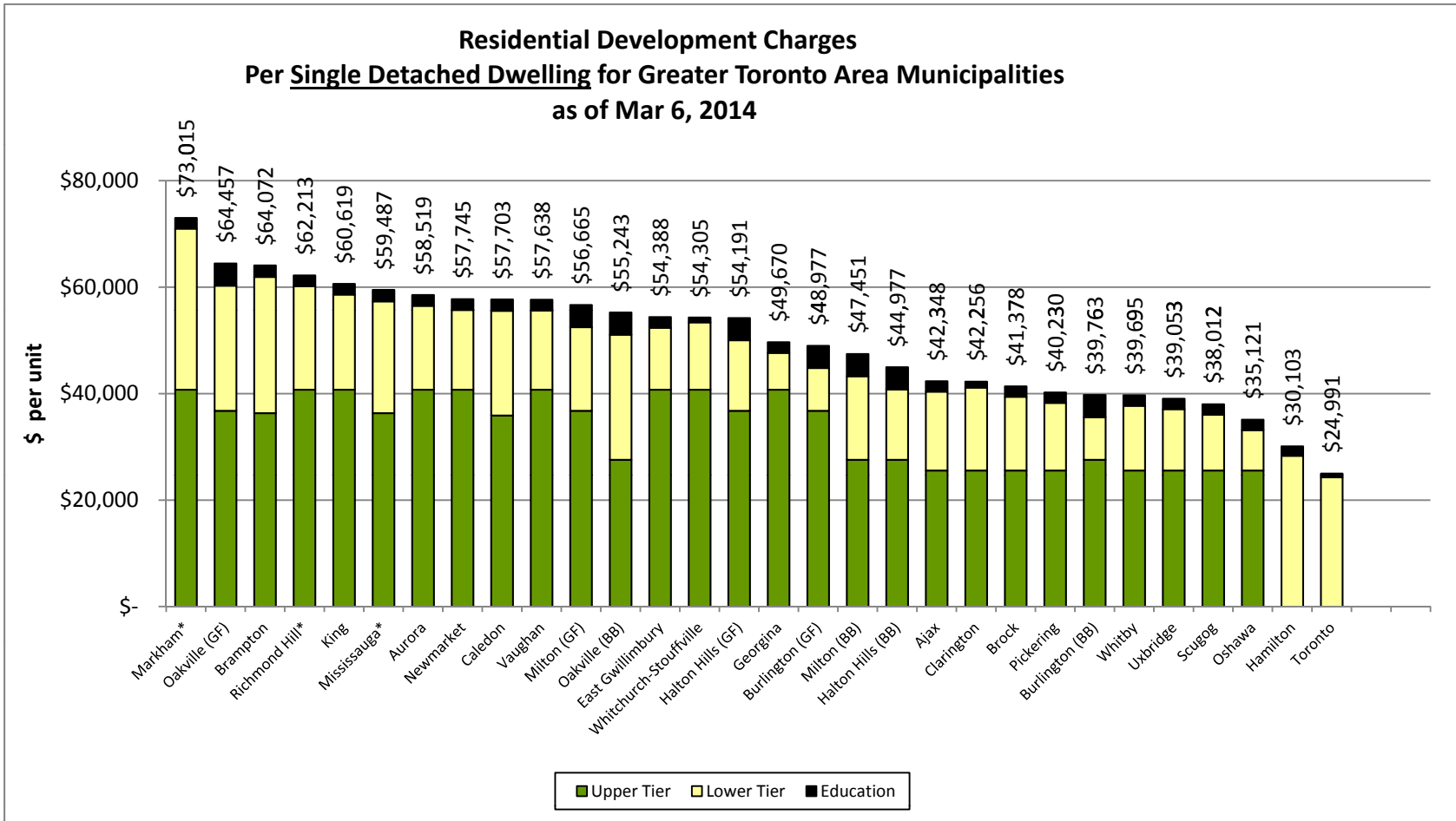
3. OTTAWA'S PROPOSED 2014 DEVELOPMENT CHARGES

3.1 The residential development charge calculation is in the order of \$5,000-\$8,000 per single detached unit increase beyond the existing charge, excluding special area charges for Manotick, Richmond, and area-specific storm DCs. A portion of these charges (i.e. non-district parks) are anticipated to be removed with the transition of Parks Development to a local service. Once the transition is complete the charge per single detached unit Inside the Greenbelt and Outside the Greenbelt will increase by approximately \$5,000 per unit, or by 22%-30%.

3.2 An increase of this magnitude, if it is maintained, is sufficiently large so as to give rise to the need for consideration of transitioning the increased charge to acknowledge units in the development process.

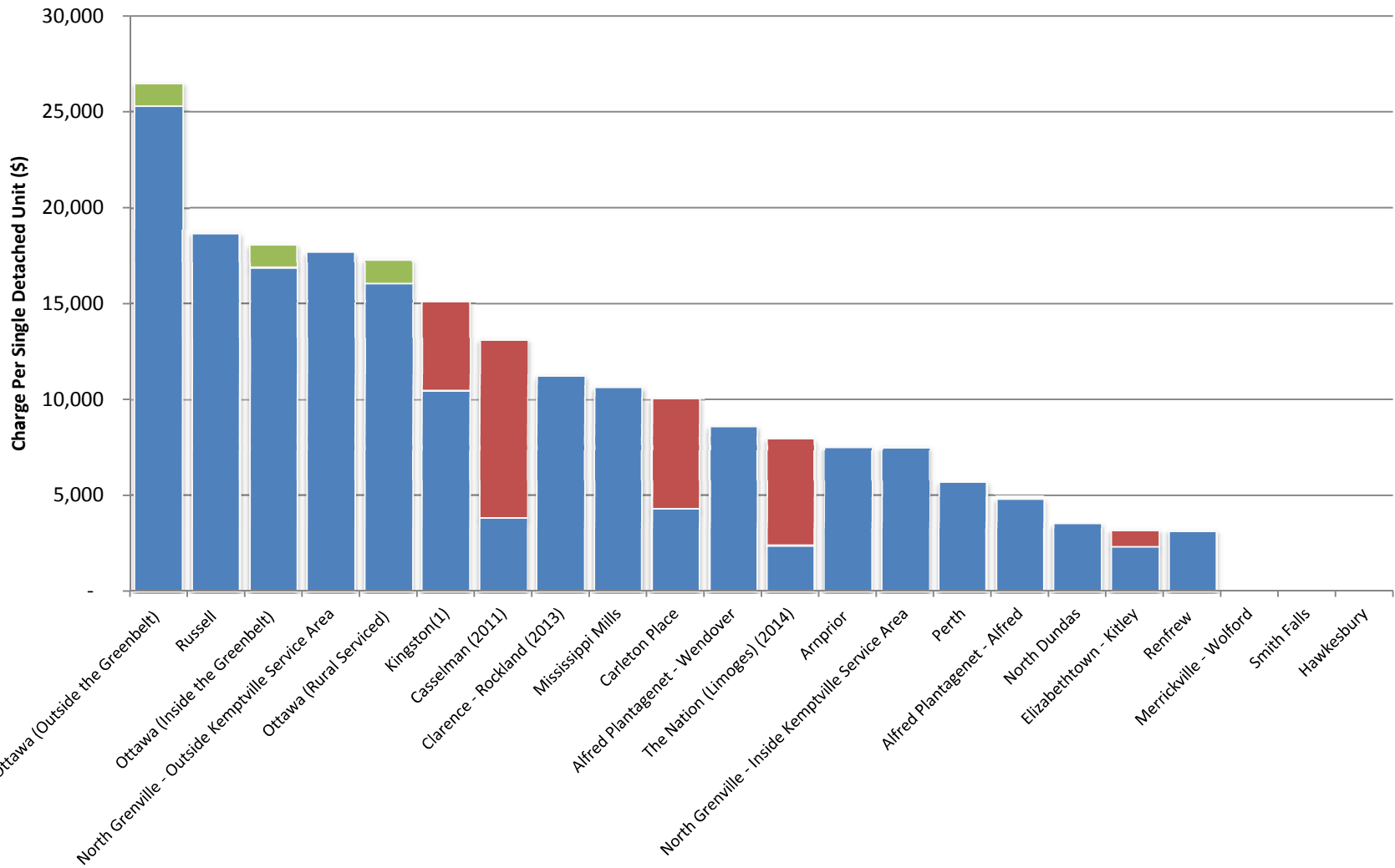
3.3 The non-residential charge calculations indicate an increase of \$1.92-\$5.32 per square foot (11%-37%) for non-industrial development, and an increase of \$0.41 per square foot (5%) for industrial development. Similar to residential, the potential increase for non-retail commercial development may give rise to the consideration of transition policies.

DEVELOPMENT CHARGE SURVEY DATA



BB=Built Boundary & GF=Greenfield.

Development Charge Rates in the Vicinity of Ottawa Residential Per Fully Serviced Detached Unit (As of April 17, 2014)



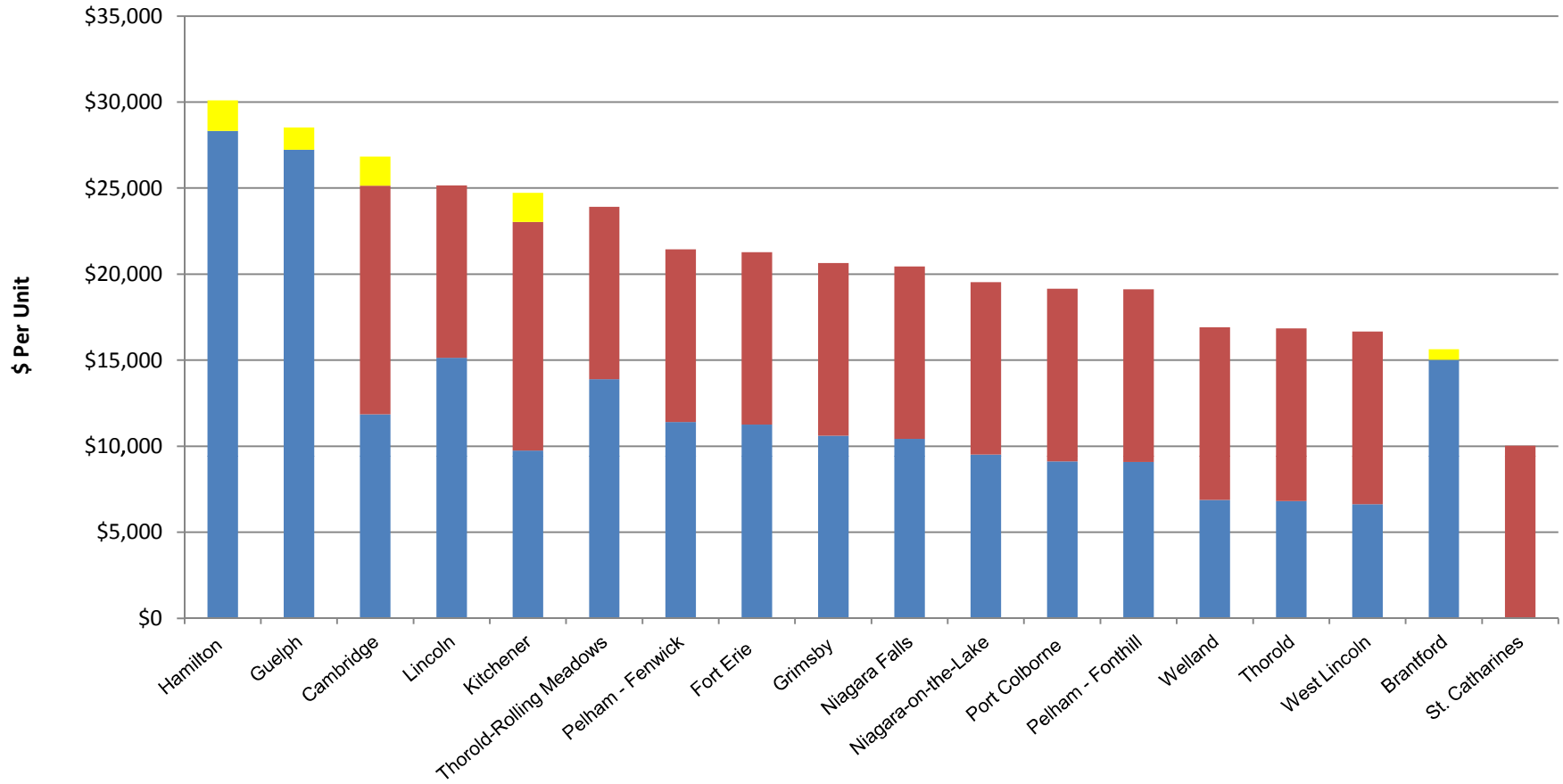
Note:

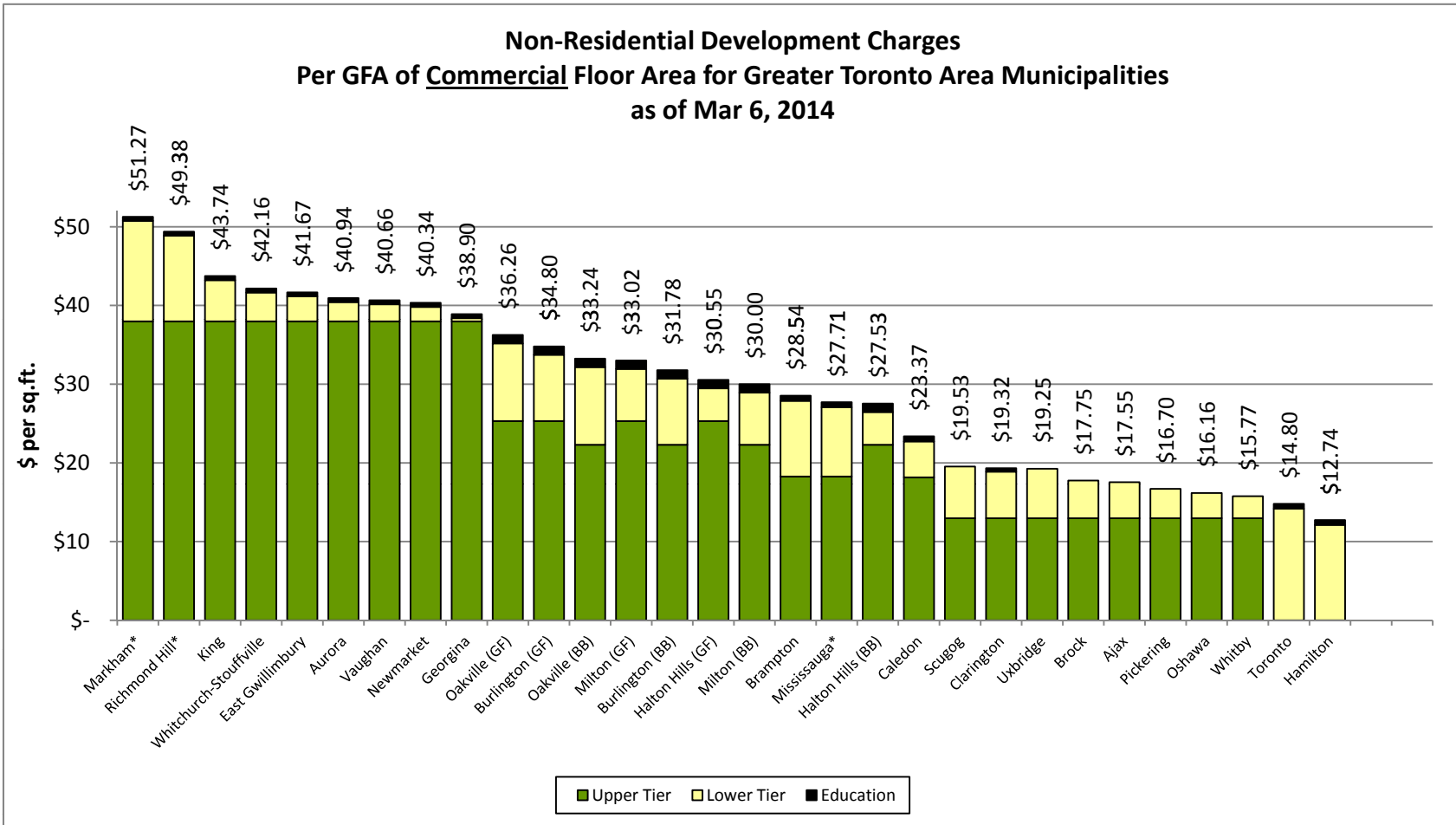
- 1) Renfrew is phasing-in the calculated charges - with full phased-in charges for 2014.
- 2) Kingston's water and waste water services are charged as impost fees

■ Lower/Single Tier ■ Connection Fee ■ Education

Development Charge Rates for Municipalities in the Vicinity of Niagara Single Detached & Semi Detached Dwelling

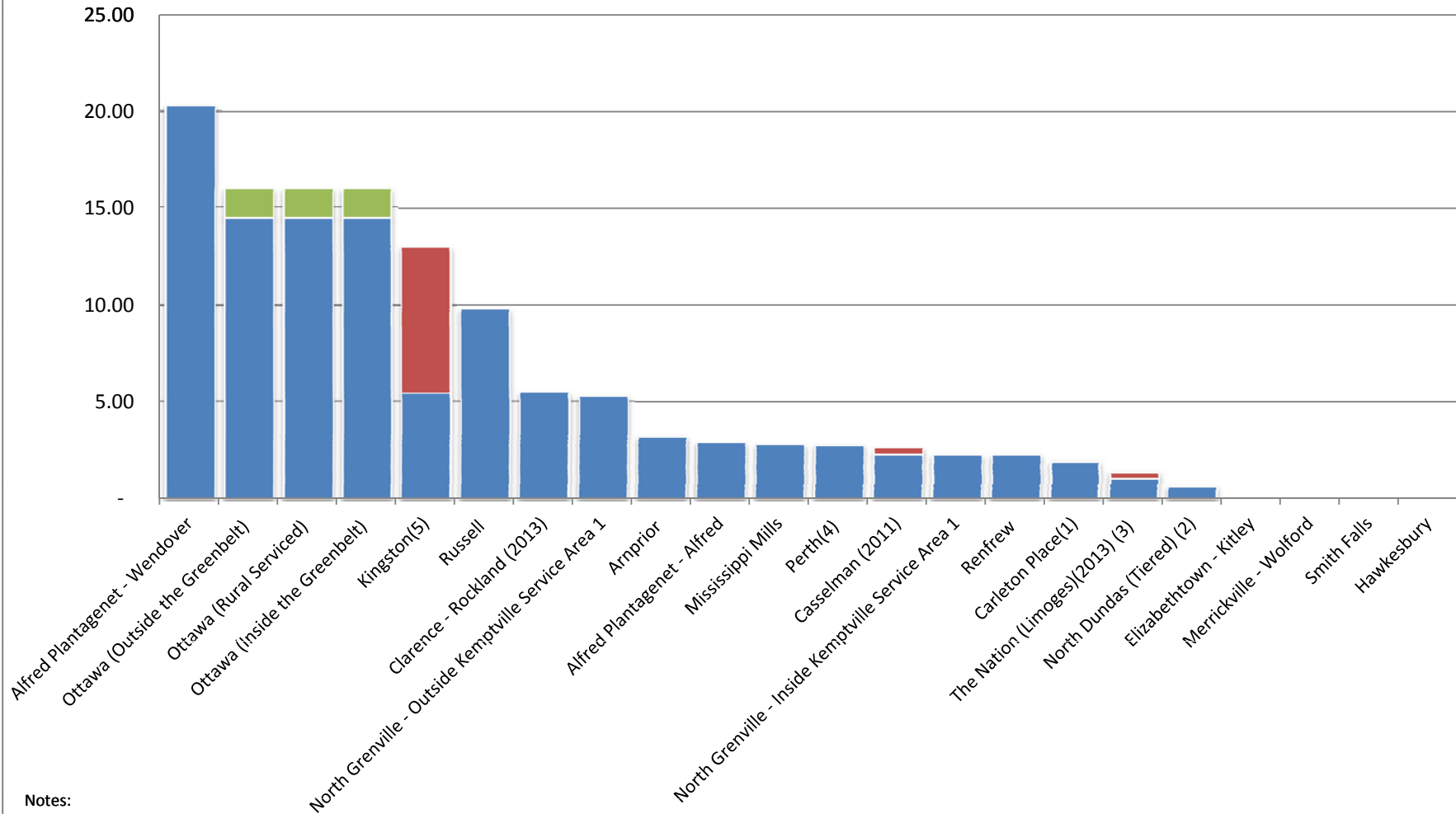
■ Lower Tier Charges
 ■ Upper Tier Charges
 ■ Education DC's





BB=Built Boundary & GF=Greenfield.

Development Charge Rates in the Vicinity of Ottawa Commercial/Retail Per Fully Served Square Foot of GFA (As of April 17, 2014)



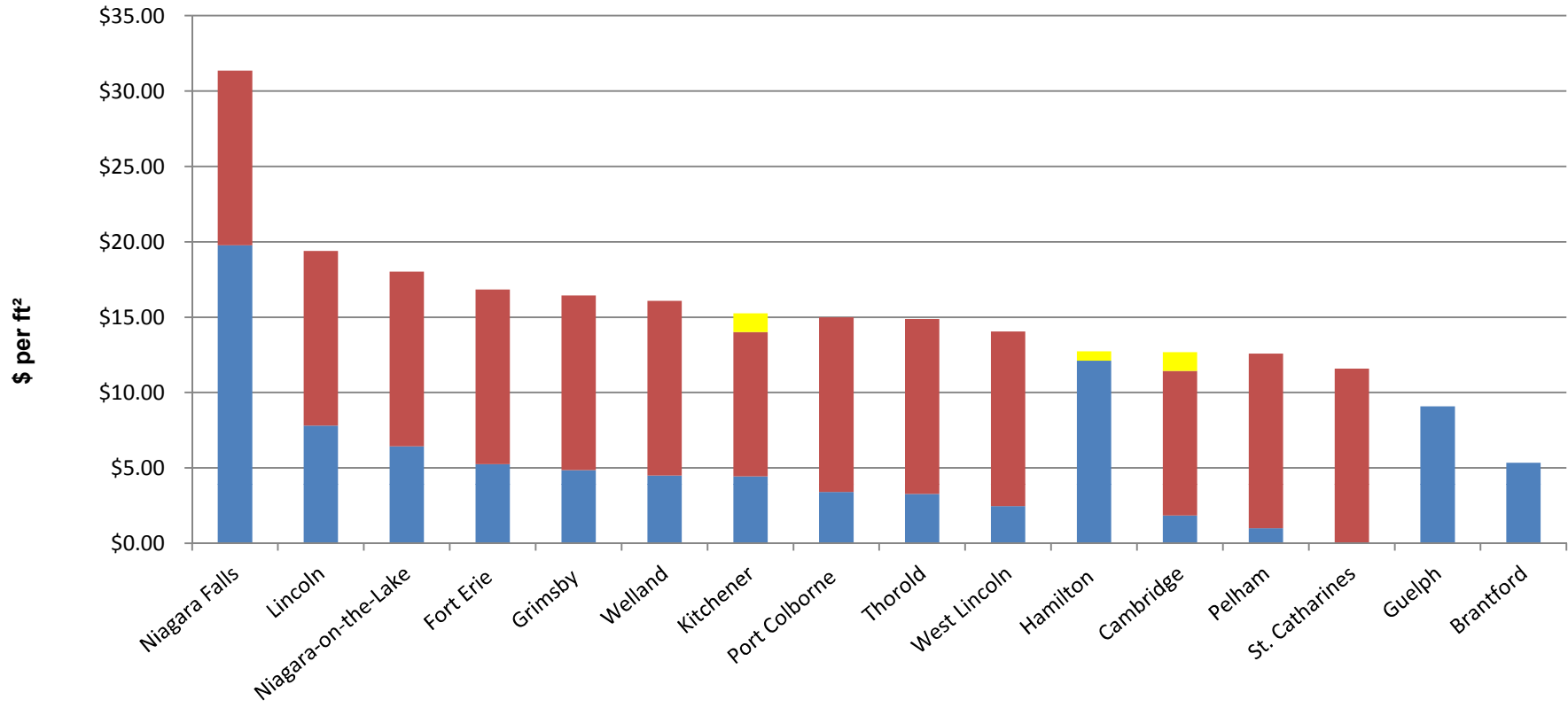
Notes:

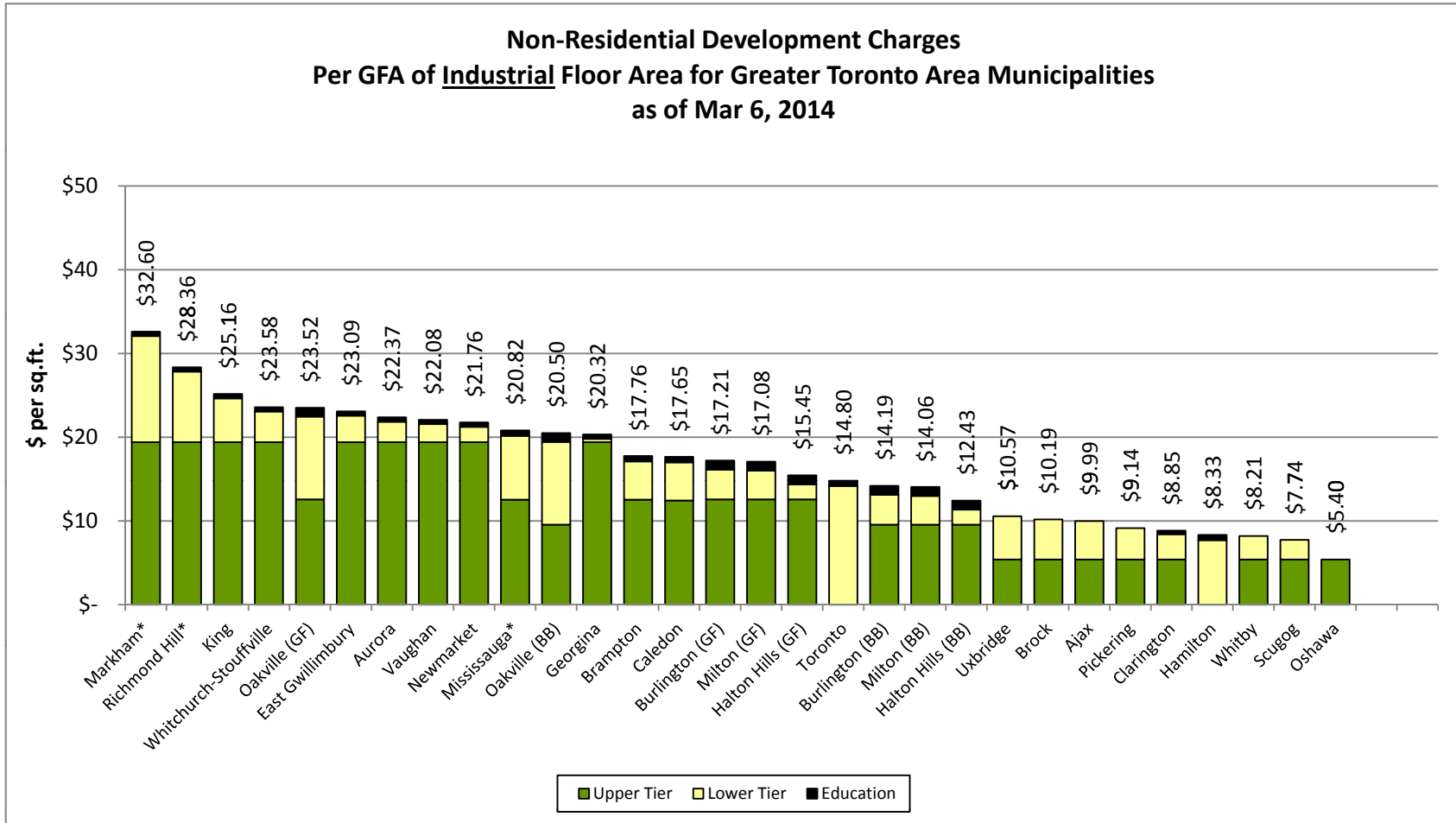
- 1) Arnprior - rates are based on the size of the facility - up to 10,000 sq.ft. \$1.79; 10,000-15,000 sq.ft. \$1.20; 15,000-20,000 sq.ft. \$0.90 and over 20,000 sq.ft.
- 2) North Dumas - first 2,500 sq.ft. \$0.5438; next 2,500 sq.ft. \$0.30; next 25,000 sq.ft. \$0.15; next 25,000 sq.ft. \$0.10; any beyond 55,001 sq.ft. \$0.05
- 3) Ottawa is phasing-in the calculated charges - with full phased-in charges for 2013.
- 4) Renfrew is phasing-in the calculated charges - with full phased-in charges for 2014.
- 5) To a max of 50,000 square feet
- 6) Perth - first 3,000 sq.ft. \$2.75; next 2,000 sq.ft. \$2.063; next 5,000 sq.ft. \$1.375; next 10,000 sq.ft. \$0.688; any beyond 20,000 sq.ft. \$0.027

■ Lower/Single Tier
 ■ Connection Fee
 ■ Education

Development Charge Rates for Municipalities in the Vicinity of Niagara Commercial Development - per ft²

■ Lower Tier Charges
 ■ Upper Tier Charges
 ■ Education DC's

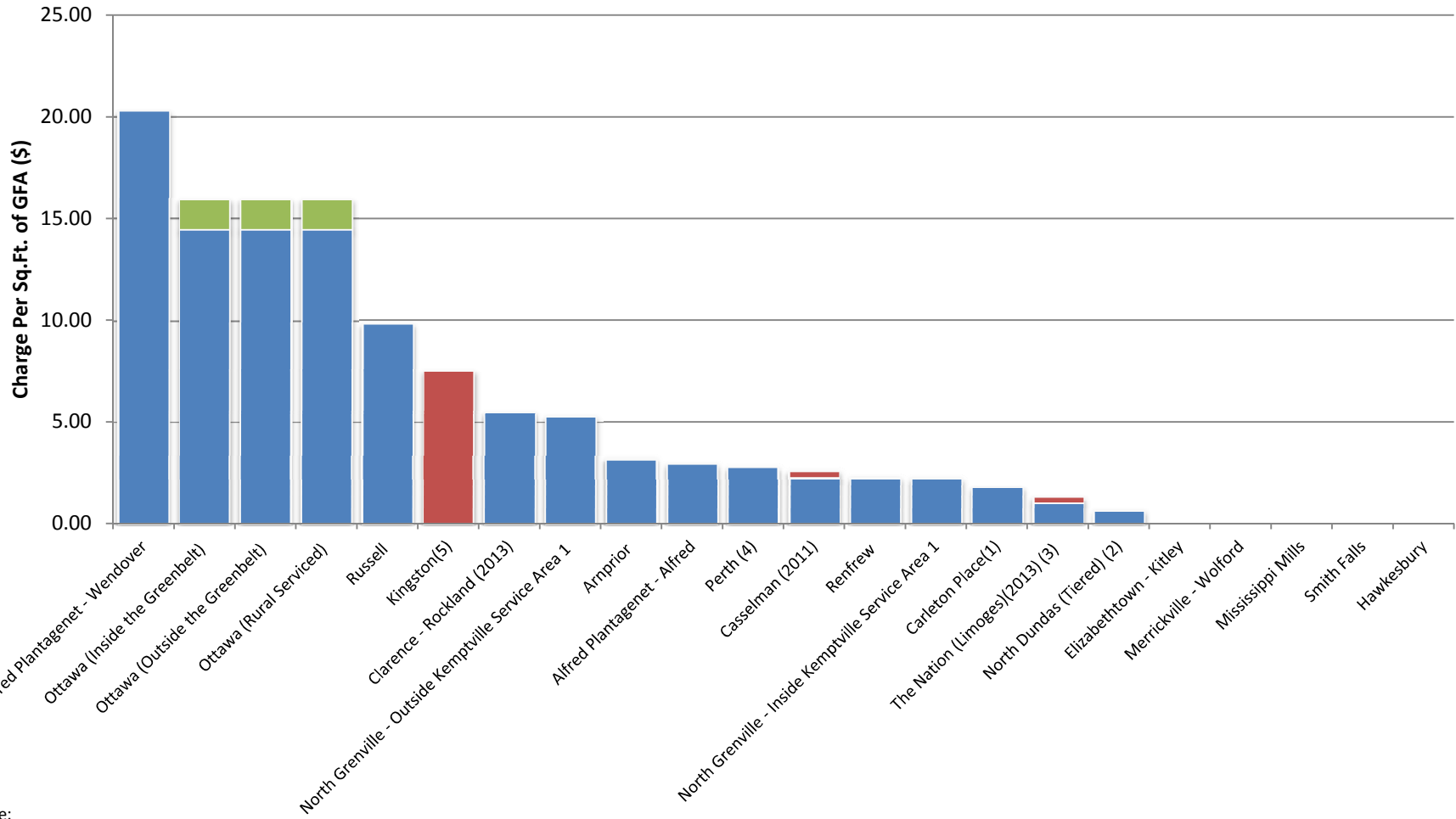




Durham municipalities include Region's new charge which is effective July 1, 2013.

BB=Built Boundary & GF=Greenfield.

Development Charge Rates in the Vicinity of Ottawa Industrial Per Fully Served Square Foot of GFA (As of April 17, 2014)

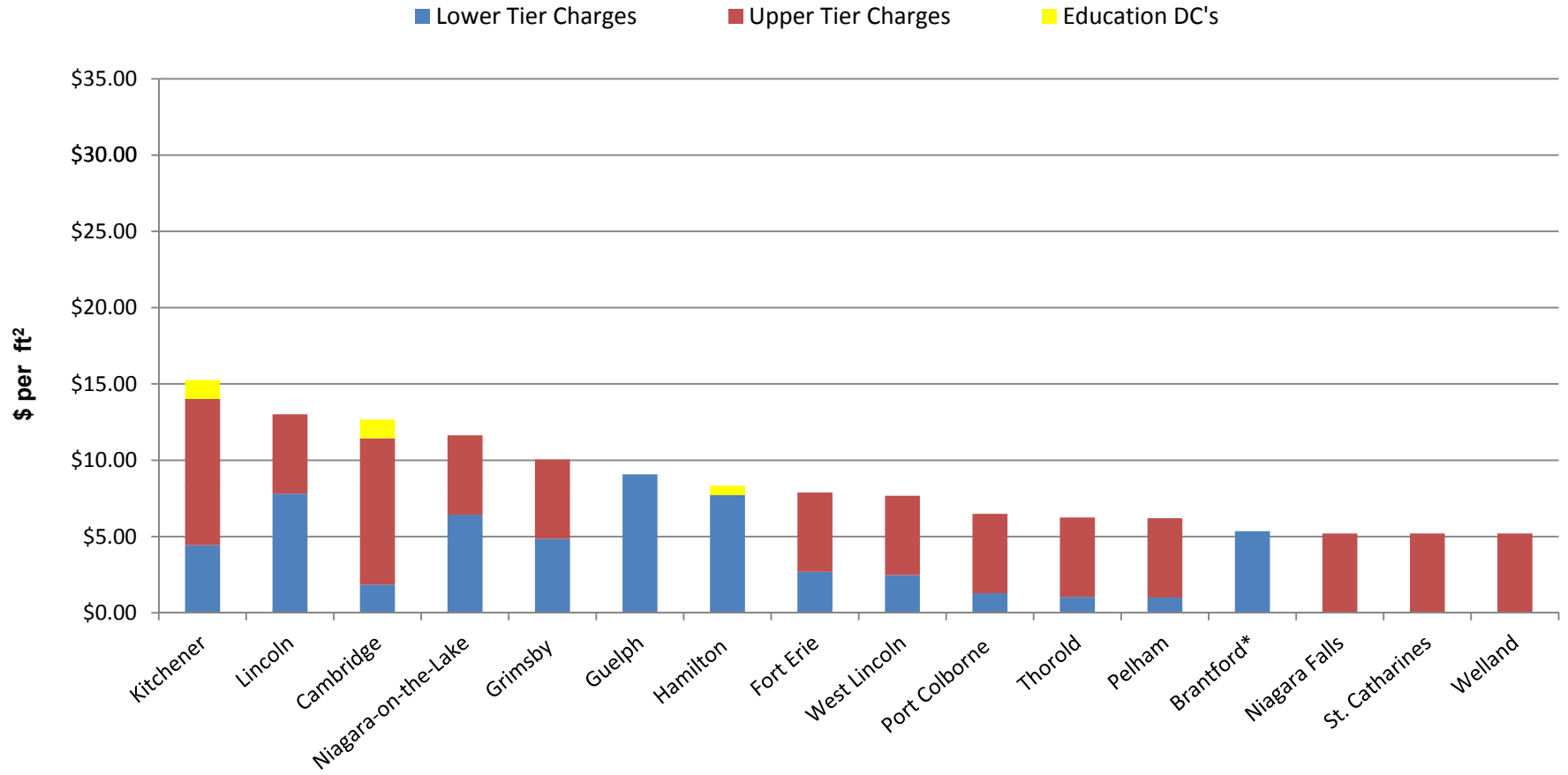


Note:

- 1) Carleton Place - Development in the downtown district is fully exempted
- 2) North Dundas - first 2,500 sq.ft. \$0.5438; next 2,500 sq.ft. \$0.30; next 25,000 sq.ft. \$0.15; next 25,000 sq.ft. \$0.10; any beyond 55,001 sq.ft. \$0.05
- 3) Ottawa is phasing-in the calculated charges - with full phased-in charges for 2013.
- 4) Renfrew is phasing-in the calculated charges - with full phased-in charges for 2014.
- 5) To a max of 50,000 square feet
- 6) Perth - first 3,000 sq.ft. \$2.75; next 2,000 sq.ft. \$2.063; next 5,000 sq.ft. \$1.375; next 10,000 sq.ft. \$0.688; any beyond 20,000 sq.ft. \$0.027
- 7) Kingston's water and waste water services are charged as impost fees

■ Lower/Single Tier ■ Connection Fee ■ Education

Development Charge Rates for Municipalities in the Vicinity of Niagara Industrial Development - per ft²



APPENDIX G
DEVELOPMENT CHARGE POLICY REVIEW

PART I

**2013/2014 DEVELOPMENT CHARGE CALCULATION
METHODOLOGY REVIEW**

CONTENTS

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1. INTRODUCTION

1.1 This paper has been prepared as part of the process of making decisions as to the specific methodology to be used in calculating the City's 2014 development charges. It reflects the review that was made of development charge calculation methodology in the:

- Regional Municipalities of Durham, Halton, Niagara, Peel and York;
- The Cities of Hamilton, Kingston, Mississauga, Ottawa and Toronto;
- The Towns of Ajax, Oakville and Whitby;

among others.

1.2 Apart from the capital expenditure plans themselves, these are the most significant considerations involved in arriving at a proposed schedule of development charges. It is therefore appropriate to make these assumptions explicit, relatively early in the process, in order to assist decision-makers and stakeholders in their review.

1.3 Work has not yet commenced in using these various approaches in the calculation of a set of charges. That will be done once the methodological options have been discussed and the general approach to be use has been confirmed, in principle.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

<p>1. DC Calculation Methodology</p> <p>A. Service Definition</p> <ul style="list-style-type: none"> • Exclude ineligible services (Topic B), local service components (Topic C) and ineligible costs (computer equipment and rolling stock with a useful life of less than 7 years). • Include all other services for which the City plans to incur capital costs for new servicing capacity expansion. • Include all applicable capital costs, including the (all-in) cost to acquire, construct, improve and lease buildings/structures, acquire or improve land, acquire furniture, equipment or library materials, studies in connection with the above and interest on money borrowed for such purpose.
<p>2. Existing City Approach and Basis</p> <ul style="list-style-type: none"> • As per 3a), b), c).
<p>3. General Municipal Practice</p> <p>a) Practice is generally as prescribed in #1 above.</p> <p>b) Police and EMS vehicles lifetime expressed on a one shift per day equivalent basis.</p> <p>c) Only freestanding office computers are typically excluded.</p> <p>d) s.s.5(3)4 of the DCA lists “services related to a highway” as defined in subsection 1(1) of the <i>Municipal Act</i>” as a service. This involves the efficient transportation of people and goods via different modes, including passenger automobiles, commercial vehicles, transit vehicles, bicycles and pedestrians. As a result, the roads service is defined so as to include provision for all of these components in municipalities such as York Region, Oakville and others.</p> <p>e) In some cases, municipalities combine different services into a single service category, e.g. Operations and Fire in Whitby; hard services in Markham and Vaughan; and Parks and Recreation in Oakville and Toronto. This can only be done for services which are in the same s.s.5(1)8, 10% statutory reduction category. The purpose in doing so is typically to provide greater funding flexibility or to add projects so as to more fully utilize available service level capacity.</p>
<p>4. Proposed Approach</p> <ul style="list-style-type: none"> • Include 3a), b), c), d) and e) above. • Financing costs were not included in 2009, but are to be more specifically addressed in 2014. (See: N. Cash Flow vs. Quantum Calculation Approach)

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

B. Ineligible Services

- s.s.2(4) of the DCA indicates that the following services are ineligible for DC coverage: museums, theatres and art galleries (cultural or entertainment facilities); convention centres (tourism facilities); parkland acquisition; hospitals; waste management; headquarters for general municipal administration.

2. Existing City Approach and Basis

- as per the DCA.

3. General Municipal Practice

- a) As per the DCA.
- b) A number of municipalities impose DCs for office space for those health, social services and/or police service operations which are considered to be “field offices,” rather than general municipal administration headquarters functions.

4. Proposed Approach

To the extent that population and employment growth gives rise to increases in field operations (e.g. inspectors, police officers, etc.) that require office space, whether at HQ or otherwise, it is proposed that DCs be used to fund the capital cost of such space. This is being done in municipalities such as Halton, Durham and Whitby. By the same token, general administration headquarters office space for services such as Police, should not form part of the level of service calculation.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

<p>1. DC Calculation Methodology</p> <p>C. Local vs. DC Services</p> <ul style="list-style-type: none"> • s.59 of the DCA stipulates that a municipality cannot require a landowner to fund or construct development services via a subdivision or consent agreement, other than local services related to a plan of subdivision or within the area to which the plan relates. (Also local services to be installed or paid for by the owner as a condition of consent approval.) • s.s.2(5) of the DCA states that a DC By-law may not impose DCs with respect to the local services referenced above. • Ottawa-specific local service definitions are required for water, sanitary sewer, stormwater management, roads and related and parkland development infrastructure. The growth-related cost of all non-local infrastructure is DC-fundable.
<p>2. Existing City Approach and Basis</p> <p>The City's local service policy is set out in Appendix D of the 2009 DC Background Study. Some of the local service inclusions are local watermains 406 mm and smaller (coupled with flow requirements), temporary pumping stations, new local roads, new collector roads of 11 m or less, and certain traffic signals, streetlights and sidewalks.</p> <p>In 2011, the City, in consultation with the development community, revised its DC calculation for parkland development and increased the service level cap and the DC significantly. The City also revised the sharing of parkland development responsibility between it and developers with respect to rough vs. final grading, tree removal, provision of hard services, provision of certain community trails and connections, etc.</p>
<p>3. General Municipal Practice</p> <p>Municipal practice with respect to local service definition is localized and generally reflects typical subdivision size and pace of development. Fundamentally, the works involved should be scaled to the needs of a typical large subdivision.</p>
<p>4. Proposed Approach</p> <p>No major changes are proposed to Appendix D of the 2009 DC Background Study; however, clarification is required as to the way in which the flow and pipe size limits are to be interpreted and applied. The City will also continue to meet with a subcommittee of the Industry Working Group to pursue the option of the City not collecting development charges for some or all parks.</p>

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

<p>1. DC Calculation Methodology</p> <p>D. Level of Service Cap</p> <ul style="list-style-type: none"> • One of the most fundamental components of the DC calculation relates to the application of the 10-year historical level of service cap to future growth in development. This cap is typically calculated as quantity (e.g. 3 square feet of facilities per capita) X quality (e.g. \$300/sq.ft.) X 10-year anticipated growth (e.g. 100,000 persons) = \$90 million. This would be the maximum amount that could be raised from DCs for the service involved (prior to considering any other deductions) from growth in the next decade. The “3 square feet” and “\$300/sq.ft.” examples are hypothetical and should reflect actual City of Ottawa averages for each individual service over the historical 2004-2013 period (in 2014 \$). The 100,000 persons is also hypothetical and should reflect the forecast population increase (as well as the forecast employment increase in the case of services such as Fire and Police which relate uniformly to both population and employment growth) over the mid-2014 to mid-2024 decade.
<p>2. Existing City Approach and Basis</p> <p>The City employs the basic methodology outlined above but has excluded land costs and “supplements” (e.g. 3b)) from the calculation.</p>
<p>3. General Municipal Practice</p> <ul style="list-style-type: none"> a) The methodology outlined above is universally applied. Land costs are included in a number of cases (in preference to excluding land cost but including future site costs as an add-on to the level of service cap, where applicable). b) Some municipalities include an additional “congestion factor” level of service allowance for transit (more buses required to maintain the same level of service in terms of frequency of stops as a result of increased road congestion and reduced travel speed) and an “Accessibility Allowance” for the replacement cost of various community facilities (to include the additional construction cost of meeting legislated accessibility requirements).
<p>4. Proposed Approach</p> <p>It is proposed that the City continue the existing approach but include land costs, where applicable.</p>

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

E. Uncommitted Excess Capacity

- “Excess capacity” is unused servicing capacity that is on hand in 2014 and able to meet some of the future development-related increase in the need for service. It is “uncommitted” where Council has not previously expressed the clear intention that it is to be DC funded.

2. Existing City Approach and Basis

It is the City’s policy to consider the availability of excess capacity when planning the need for additional facilities and infrastructure. For example, this has been done as part of the City’s Transportation Master Plan and Infrastructure Master Plan.

3. General Municipal Practice

Most municipalities follow Ottawa’s approach; however, some calculate current need using the 10-year historical service level and existing population. Where the calculated need is less than the actual asset inventory, the difference is deducted from the service level cap to be applied. This approach is quantifiable, but arbitrarily uses the historical average, rather than the municipality’s actual service level policy and objectives, which may be different than the DC average.

4. Proposed Approach

In the case of water, sewer and roads, specific engineering analysis has been undertaken to net uncommitted excess capacity out of future servicing needs.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

F. Post Period Capacity

- This is a term which is not specifically referenced in the DCA. It refers to the cost of oversized servicing capacity which is not required by development anticipated over the municipality's planning period, which will clearly benefit development in a **subsequent** planning period and should, in some cases, be (partially) funded by such subsequent development (e.g. a water purification plant that is sized to accommodate 25 years' growth but the DC calculation only covers 20 years' growth). 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.
- "Soft services" (those in the 10% deduction category) involve an explicit calculation of the 10-year servicing requirement. Since s.s.5(1)4 restricts the DC calculation to that maximum amount, no post period capacity deduction is involved in this case.

2. Existing City Approach and Basis

Roads – For screenlines, where the 2031 V/C was less than 0.9, a PPC deduction was made. Also, a PPC deduction was made for all roads to be constructed beyond the first decade (other than the area-specific collector projects).

Water – No deduction was made for treatment plants, as they had been sized to 2031. A deduction was made for watermain projects to be constructed beyond the first decade.

Wastewater – A deduction was made for R.O. Pickard plant expansion, which was sized for post-2031 growth. No sewer deductions, as none to be constructed beyond the first decade.

Transit – A deduction was made in 2009, calculated as the ridership increase 2019-31 ÷ 2031 total.

3. General Municipal Practice

Practice varies significantly, e.g.

- a) Roads – In Durham Region, the value of surplus capacity was calculated project by project for forecasted 2028 volumes/capacities for widening and connection projects to be constructed 2023-2027.
- b) Water and Wastewater – In Halton Region, oversizing was considered only for large watermain and sewer projects (1,200 mm and larger) and treatment plants, on a marginal cost basis, i.e. full cost minus cost to meet 2031 needs.
- c) Transit – Normally does not involve oversize beyond the 10-year period, except in the case of subways and LRT.

4. Proposed Approach

- A PPC deduction is applicable only in cases where a project is explicitly oversized. The deduction is to be made on a marginal cost basis.
- A portion of any PPC deduction made in 2014 should be recovered in the 2019 DC calculation, assuming that the 2031 Planning Horizon is extended.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

G. Benefit to Existing Development Deductions

- s.s.5(1)6 of the DCA requires a deduction to reflect the extent to which an increase in service would benefit existing development (“BTE”). No Regulations have been enacted to date as guidelines.

2. Existing City Approach and Basis

In the case of “hard services,” BTE has been deducted where:

- the level of service provided to existing development is increased, via watermain looping, for example;
- the functional life of existing road lanes or pipes is increased as part of a widening or replacement project;
- a sewage treatment plant is upgraded.

In the case of “soft services,”

- no BTE is generally involved as a result of proportionate increases in vehicles, equipment, library materials, etc.;
- some BTE may be involved where access or response time is improved, particularly where unique facilities or those with a small catchment area (e.g. neighbourhood park) are located in a mature area where significant growth is not expected.

No BTE has been deducted from outstanding debt payments which have been included in the DC calculation, as these only address net growth-related capital costs.

3. General Municipal Practice

Municipal practice varies widely with respect to BTE deductions. A growing number of municipalities make the deduction from expenditures beyond the service level cap and confine them to those that are primarily state of good repair or replacement/reconstruction capital. The perspective adopted in these cases, is “How is a benefit being provided to existing development, if the City is merely acting so as to maintain the historical average level of service?” Municipalities such as Pickering, Ajax, Whitby, Oshawa, Caledon, Brampton, Niagara and Brant follow Ottawa’s more conservative approach.

4. Proposed Approach

It is recommended that the City remain with its general 2009 BTE approach. However, a number of the BTE deductions are considered to be somewhat generous and require review and further consideration. These include some of the reliability/upsized splits for hard services, police costs, specialized community buildings, community centre expansions, works facilities, broader planning/policy studies, trails and passive parks, existing fire split in vehicles, etc. These adjustments will be based on taking a municipal-wide (rather than asset-specific) perspective on service provision, as well as considering the extent to which any spending beyond the service level cap provides benefit to existing development.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

H. 10% Statutory Deduction

- s.s.5(1)8 of the DCA states that, “the capital costs” must be reduced by 10%, except in the case of water, wastewater, stormwater drainage and control, highways, police, fire protection and the Toronto-York subway extension.
- This is a separate deduction from benefit to existing development, service level cap, excess capacity, etc., and must be made independently, after those deductions have been made.

2. Existing City Approach and Basis

The City has made the 10% deduction for all services other than those listed above, inclusive of Public Works and Transit Priority expenditures.

3. General Municipal Practice

The City’s approach is standard practice, except that a growing number of municipalities are treating Public Works as being ancillary to sewer, water and roads and, hence, not subject to the 10% deduction. Similarly, Transit priority is treated as being part of the functioning of the road allowance (i.e. “highway”).

4. Proposed Approach

It is proposed that the City not make the 10% deduction for Public Works or for transit priority, as it relates to road requirements (with the exception of those cost components of Public Works which provide services to Parks and any other services for which a 10% deduction is applicable). This is considered to be the most appropriate application of the subsection.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

I. Grants, Subsidies and Other Contributions

- s.s.5(1)7 of the DCA requires that “the capital costs” must be reduced, to adjust for capital grants, subsidies and other contributions made (or anticipated by Council to be made), in respect of the capital costs. s.6 of O.Reg. 82/98 requires that the contribution be shared between existing and new development (based on the BTE deduction) unless the party making it expressed a clear intention otherwise.

2. Existing City Approach and Basis

The 2009 DC calculation provided for \$1.91 Billion in Transit subsidies and several project-specific subsidies for roads and sanitary sewers provided to the City at the time. Anticipated direct developer funding for projects was netted out of the project costs.

Federal and/or provincial contributions to rapid transit were deducted from the gross cost of transit projects. The anticipated two-thirds subsidy was based on official funding agreements and recent announcements by senior governments. No deductions were made for gas tax funding as it was expected that this source of revenue would be directed to non-growth projects.

3. General Municipal Practice

Gas Tax revenues are typically used to fund non-growth-related works or the non-growth share of DC projects, given that the contribution is not being made in respect of particular growth-related capital projects.

4. Proposed Approach

It is proposed that the City continue to apply the treatment of capital grants, subsidies and other contributions adopted in 2009.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

J. DC Reserve Fund Draws, Deductions and Adjustments

- The DCA and Regulations contain a number of provisions relating to DC reserve funds, including sections 33-36 and 43. These deal with public reporting requirements and the use of DCs (i.e. only for capital costs determined as part of calculating the DC). s.s.5(1) which sets out the DC calculation procedure does not mention DC reserve funds specifically.
- s.s.5(6)3 is indirectly relevant to DC reserve funds, in that it states that if a DC by-law provides for a type of development to have a lower DC than is allowed (e.g. via (voluntary) exemption or phase-in) any resulting shortfall cannot be made up via higher DCs for other development. Over time, if the municipality funds the full DC recoverable cost from DC reserve funds and ignores this “exemption funding gap” then, in effect, it is acting so as to recover those costs from non-exempt development.”

2. Existing City Approach and Basis

In calculating the 2009 DC, the City deducted the DC reserve fund balance from the net growth-related cost in the case of water, sewer, storm, roads, transit and studies. This is to reflect the fact that the hard services capital program is not specifically geared to the needs of development within a specific time frame, based on per capita service levels. For all other (per capita based) services, the reserve fund balance was to be applied in future against beyond service level cap or benefit to existing development project cost components. This is to reflect the fact that the growth that paid the DCs is now “existing development” but has not yet received the specified additional facilities which for its DC payment was made. This also avoids using those funds to reduce future DC requirements which would inappropriately serve to reduce service levels.

With respect to coverage of s.s.5(6)3, the primary “adjustment for prior years discounting” amounted to \$1.24/sq.ft. or non-residential development (7.26%) which was a calculated amount intended to offset the foregone revenue due to discounting the non-residential charge for certain categories of development.

3. General Municipal Practice

General municipal practice in this area is consistent with the City’s 2009 approach not to apply DC reserve fund balances in the calculation of the 10-year service DC, except in the case of public transit where the primary deductions were made outside of the level of service cap.

In the case of s.s.5(6)3, municipal practice varies considerably, with a number of municipalities fully funding the DC recoverable cost from development that is subject to the charge. Other approaches involve reducing the DC recoverable share of funding when contributions are made to an eligible capital project, to account for the share of benefiting development that will not be subject to a charge. Another approach involves making a further upward adjustment to the reserve fund balance in a future DC calculation to account retroactively for discounting and phasing-in of the charge.

4. Proposed Approach

- a) Continued use of the standard approach to the use of soft service reserve funds is recommended.
- b) In order to address s.s.5(6)3, there are several options. The recommended approach is to make compensating contributions to the various growth-related reserve funds from general revenues to offset the loss in revenue. This can be done as the voluntary exemptions or equivalent occur, or on an annual basis. The advantage of this approach is that it allows municipal officials to clearly see the cost of these DC exemptions.
- c) However, at a minimum, the Public Transit component should be subject to an offsetting contribution under all circumstances.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

K. Employment Forecasts

- Employment forecasts play three important roles in the DC calculation. First, as part of establishing the need for service and calculating the additional need for capital works and the cost thereof. Second, in apportioning those costs between benefit to residential vs. non-residential development. Third, in calculating the floor area denominator for the non-residential development charge calculation (or for components of it, such as industrial or retail).
- The complicating factor is that some employment (i.e. work at home and no fixed place of work (e.g. sales and contractors)) does not generate DC recoverable floor space, but may involve some need for service.

2. Existing City Approach and Basis

Ottawa's employment forecast is derived from its Business Survey and includes a significant portion of the two above-referenced employment categories. The associated floor space forecast in 2009 was 63% commercial and involved a comparatively low 368 sq.ft. per employee of total non-residential gross floor area.

3. General Municipal Practice

In order to spread the non-residential share of growth costs over the entirety of the employment that gives rise to it, standard floor space per employee ratios are applied. These are typically 400 sq.ft. per employee for commercial, 1,000 sq.ft. per employee for industrial and 700 sq.ft. per employee for institutional, based on detailed surveying in the GTA and beyond.

4. Proposed Approach

The proposed factor approach outlined in #3 above gives rise to a significantly higher forecast increment in floor space than was estimated in 2009. This higher floor space factor has been compared with City non-residential building permits and DC payments during the past four years and would produce floor space growth well in excess of actual experience. This may either indicate that the City's employment growth forecast is high or its floor space per employee experience is unusually low.

A related non-residential development financing consideration concerns the treatment of exempt development (i.e. municipal, school and other institutional development, as well as industrial building enlargements up to 50%). Floor area for these uses forms part of the DC calculation denominator, but no development charges are collectable. This unavoidably leaves a capital funding gap to be filled by property taxes or user rates. A similar but smaller gap exists in the case of work at home and no fixed place of work employment, where virtually no DC-chargeable floor area is involved.

Both the City's 2013 Transportation Master Plan and the Infrastructure Master Plan are based on the Official Plan projections that employment growth in Ottawa over the 2011/12-2031 period will consist of 138,000 additional jobs (growth from approximately 565,000 jobs to 703,000 in 2031). As a result, this is the forecast that is proposed for use in the 2014 DC calculation. The task is to establish an appropriate floor space forecast which properly corresponds with this employment growth and gives due consideration to the factors noted above.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

L. Categories of Development

- The DCA permits municipalities to determine the categories of residential and non-residential development for which they wish to impose a charge. However, s.s.5(6)2 states that where a type of development is identified, the rules must not provide for it to pay DCs that exceed the capital costs that arise from the increase in the need for services attributable to that type of development. This means, in effect, that the increase in the need for service should be distinguishable by type of development, based on average occupancy, trip generation, water flow or other relevant indicators.

2. Existing City Approach and Basis

The City's current by-law calculates and imposes residential development charges for four categories based on average PPU assumptions for each of the categories:

- Single and semi-detached;
- Apartments with 2 or more bedrooms, back-to-back townhouses and stacked townhouses;
- Apartments with less than two bedrooms; and
- Multiple, row and mobile dwellings.

A single non-residential DC (for each service) was calculated for all non-residential development based on gross floor area. The calculated rates were applied to:

- "General Use" (retail, hotel and motel) at the full charge;
- Commercial (office), institutional and industrial at 81% of the full charge;
- Industrial (limited) use which is not high tech, at 46% of the full charge.

3. General Municipal Practice

- a) Residential charges are generally calculated for different types of residential units based on PPU assumptions, so that units with higher occupancies will pay higher DCs reflecting an increased demand for service.
- b) In recent years, an additional category to reflect the servicing demands of assisted housing developments (apartment-like units with partial culinary facilities and central dining and health services) has been added in many cases.
- c) The Regions of Peel and York, as well as the City of Mississauga, differentiate between small and large apartment units on the basis of floor area rather than number of bedrooms, with the division between a large and a small apartment being 700-750 sq.ft. The primary reason for doing so is that it avoids the need to determine whether a solarium, den or other room should be classified as a

bedroom. The weakness in the approach is that it is not as solidly linked to average occupancy and need for service, as is the case with Census bedroom count data. However, either approach is potentially workable.

- d) It has become more common practice to differentiate the non-residential DC into industrial vs. non-industrial or retail vs. non-retail charges. For example, Hamilton and Mississauga have an industrial vs. non-industrial DC, York, Halton and Oakville have a retail vs. non-retail DC, Toronto has a single non-residential charge with industrial being fully exempt, Durham charges separately for commercial vs. industrial vs. institutional development and Peel employs an industrial vs. office vs. other non-residential charge. In some cases, this has been done so as to reflect differences in trip generation, water flow and/or employee density. This approach can potentially serve to minimize the need to discount DCs for non-residential uses such as industrial, thereby avoiding the loss in revenue (i.e. a lower charge for industrial is based on lower service requirements, rather than a simple discount).

4. Proposed Approach

It is proposed that the City:

- a) Generally maintain its existing residential DC categories, seeking building industry input to the use of floor area size factors for apartments, rather than number of bedrooms. Also, introduce a charge largely applicable to infill development, addressing dwelling structures with 4-6+ bedrooms.
- b) Calculate retail vs. non-retail and industrial vs. non-industrial charge options, based on service demand factors.
- c) Where a non-residential building is to be demolished or converted to residential use, a credit will be provided in the amount of the theoretical development charges payable if a building permit had been issued to construct the non-residential building.
- d) The window of opportunity for a credit between demolition and building permit issuance for redevelopment will be five years.

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

<p>1. DC Calculation Methodology</p> <p>M. Area-specific vs. Uniform Charges</p> <ul style="list-style-type: none"> • Development charges can be imposed on a uniform, City-wide basis (as in the case of non-residential charges in Ottawa) or on a large or small area-specific basis (as with Ottawa’s residential DCs for a number of Ottawa services).
<p>2. Existing City Approach and Basis</p> <p>Four different geographic charge areas and 15 service categories were used in 2009. In several cases, uniform City-wide charges were imposed. For the remaining services, they are a blend of area-specific and City-wide (e.g. arterial roads are City-wide and collectors are area-specific). This approach substantiates lower charges Inside the Greenbelt and in the Rural area (particularly in the case of Transit), as compared with similar development Outside the Greenbelt.</p>
<p>3. General Municipal Practice</p> <p>Municipal-wide charges are the most widely preferred, but area-specifics are preferred in some cases in order to reflect significant servicing cost or service level differences. This is sometimes part of providing financial incentives for intensification and other planning goals. With only minor exceptions, uniform municipal-wide DCs are used in Durham, York, Peel, Toronto, Oakville, Whitby, Mississauga and Hamilton. Halton differentiates its DC for water and wastewater in Greenfield vs. Built Boundary locations and municipalities such as Ajax and Niagara provide full or partial exemptions for designated types of downtown development.</p>
<p>4. Proposed Approach</p> <p>The City can either:</p> <ul style="list-style-type: none"> • maintain the current geographical organization of charges; • move further in the direction of area-specifics, either by creating a finer breakdown of benefiting areas or by making some City-wide components area-specific; or • move some of the area-specific components into the City-wide category. <p>It is proposed to maintain the City’s existing approach but to consider area-specific charges regardless of location where special circumstances warrant (i.e. calculate rural water and sewer development charge rates on a Village-wide basis with no impact on the City-wide charge).</p>

**CITY OF OTTAWA
2013/14 DEVELOPMENT CHARGE CALCULATION METHODOLOGY
REVIEW AND UPDATE**

1. DC Calculation Methodology

N. Cash Flow vs. Quantum Calculation Approach

- s.s.5(3)7 states that the capital costs that can be included as part of the DC calculation include interest on money borrowed to pay for the various capital costs.

2. Existing City Approach and Basis

- a) In 2009, the development charge calculation was made on the basis of a simple average cost calculation (net residential costs, divided by gross increase in population, multiplied by average persons per unit by type of unit).
- b) The calculation was also made for each service based on the “cash flow” approach, as illustrated in Table N-1. This calculation commenced with the DC reserve fund balance (where applicable), applied an annual inflation factor to the capital expenditures and estimated DC revenues, including inflation. It used a DC which was just sufficient to fund the capital. The calculation also added reserve fund interest earnings where there was a positive reserve fund balance in any given year and deducted a financing charge, where there was a negative balance.
- c) One of the calculations (for all services restricted to a 10-year planning horizon) follows as Table N-1. The cash flow calculation amounted to \$5,243/SDU compared with \$5,257 in the case of the average cost method, which involves a negligible difference.

3. General Municipal Practice

Most large municipalities utilize the cash flow methodology. It is particularly applicable where the timing of the forecast capital expenditures is significantly “front ended” or “back ended” over the planning period.

4. Proposed Approach

It is recommended that the City continue to use both calculation methods; however, in order to make the DC calculation as clear and transparent as possible, it is recommended that the background study focus on the average cost calculation with an adjusting net interest cost/earnings line, where applicable.

The four key financial assumptions required in making the DC cash flow calculation are recommended as follows:

- | | | | |
|------------------------------------|----------|---|--|
| • Capital Cost Inflation | 2%/yr. | } | The same index |
| • DC Indexing | 2%/yr. | | |
| • DC Reserve Fund Earnings Rate | 3%/yr. | } | 2.5 percentage points
different over the long
term |
| • DC Reserve Fund Financing Charge | 5.5%/yr. | | |

TABLE N-1
City of Ottawa
Cash Flow Calculation of the Residential Development Charge Requirement for Outside Greenbelt 10-Year Services
(000's \$ unless otherwise indicated)

Year Ending	DC Reserve Fund Opening Balance	Development-Related Expenditures (Nominal)	Development-Related Expenditures (Project Costs)	Single Detached Unit Equivalents (Building Permits)	\$5,243 per sdu inflated at 2.5% starting in 2009	Anticipated Revenue	Annual Surplus (Deficit)	3.0% / 5.50% RF Interest Earnings (Cost)	DC Reserve Fund Closing Balance
		Project Costs	Inflated at 2.5%						
2009	-	-	-	2,781	5,242.99	14,583	14,583	219	14,801
2010	14,801	(16,232)	(16,638)	2,781	5,374.06	14,947	13,111	419	13,530
2011	13,530	(15,392)	(16,171)	2,781	5,508.41	15,321	12,679	393	13,072
2012	13,072	(17,118)	(18,435)	2,781	5,646.12	15,704	10,342	351	10,693
2013	10,693	(12,404)	(13,692)	2,781	5,787.27	16,097	13,098	357	13,454
2014	13,454	(21,223)	(24,012)	2,781	5,931.96	16,499	5,942	291	6,233
2015	6,233	(13,142)	(15,241)	2,781	6,080.26	16,911	7,903	212	8,115
2016	8,115	(13,442)	(15,978)	2,781	6,232.26	17,334	9,472	264	9,736
2017	9,736	(16,510)	(20,116)	2,781	6,388.07	17,768	7,387	257	7,644
2018	7,644	(20,089)	(25,088)	2,781	6,547.77	18,212	767	126	893
2019	893	(15,291)	(19,574)	2,781	6,711.46	18,667	(13)	13	0
		(160,843)	(184,944)	30,595		182,042		2,902	

Numbers may not add due to rounding

Simple Average Calculation

$\frac{\$160,842,856}{104,024}$

= \$ 1,546.21
per capita
\$ 5,257
per SDU

H:\OTTAWA\DC 2008\Ottawa Cashflows (final).xlsx(8) OG 10 yr Res Cf

PART II

**2014 DEVELOPMENT CHARGE
IMPLEMENTATION POLICY REVIEW**

1. VOLUNTARY DEVELOPMENT CHARGE EXEMPTIONS

1.1 The DCA provides for a number of mandatory development charge exemptions, as follows:

- a) Where the only effect of the municipal approval action is to permit the enlargement of an existing dwelling unit (s.s.2(3)(a));
- b) Where the only effect of the municipal approval action is to permit the creation of up to two additional dwelling units, as prescribed (s.s.2(3)(b) and s.2 of O.Reg. 82/98);
- c) Land owned by and used for purposes of a municipality or a school board under the *Education Act*, by reason only that it is exempt from taxation under the *Assessment Act* s.3);
- d) The amount of the DC otherwise payable where the gross floor area of an existing industrial building is enlarged by 50% or less (s.4).

1.2 Based on legal precedents, development charges are generally not collectable under the DCA in the case of federal, provincial, crown corporation and, in some cases, college and university development.

1.3 Rules must be developed to determine if a development charge is payable in any particular case and these rules may provide for full or partial exemptions for types of development (s.s.5(1)9&10). A development charge by-law must set out an express statement indicating how, if at all, the rules provide for exemptions (s.6, para. 1).

1.4 A municipality may also provide a form of partial DC exemption by phasing in an increased charge or by discounting the amount of the charge on particular types of development (s.s.5(1)10).

1.5 The DCA states that, “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, the rules for determining development charges may not provide for any resulting shortfall to be made up through higher development charges for other development” (s.s.5(6)3).

1.6 In this regard, it is important to note that some development (e.g. Rural or Inside Greenbelt) may pay a lower DC than similar development located elsewhere (e.g. Outside Greenbelt). This does not reflect a discount or partial exemption. It is the result of making an area-specific or service-specific DC calculation.

1.7 Ottawa’s 2009 DC By-law (2009-216) provides for the following exemptions in Section 7:

Exemption Category

- | | | |
|------------------|-----|--|
| Statutory | (a) | All residential use building permits not resulting in the creation of an additional dwelling unit; |
| Statutory | (b) | The creation of one or two additional dwelling units in an existing single-detached dwelling provided that the total gross floor area of the additional one or two dwelling units does not exceed the gross floor area of the existing single-detached dwelling; |
| Statutory | (c) | The creation of one additional dwelling unit in a residential use building, other than a single-detached dwelling, provided that the additional dwelling unit does not have a gross floor area greater than: <ul style="list-style-type: none"> (i) in the case of a semi-detached dwelling or row dwelling, the gross floor area of the existing dwelling, or (ii) in the case of any other residential use building, the gross floor area of the smallest dwelling unit contained in the residential use building; |
| Statutory | (d) | Buildings or structures owned by and used for the purpose of a city, or school board, as defined in subsection 1(1) of the <i>Education Act</i> ; |
| | (e) | Every place of worship and the land used in connection therewith; |
| | (f) | Every churchyard, cemetery or burying ground exempt under the <i>Assessment Act</i> for taxation purposes; |
| | (g) | Non-residential use buildings used for <i>bona fide</i> agricultural purposes; |
| | (h) | Farm retirement lots in accordance with the official plan; |
| | (i) | Non-residential use development involving the creation or addition of accessory uses containing less than ten square metres of gross floor area; |
| No impact | (j) | Non-residential use building permits not resulting in the creation of additional gross floor area; |
| Statutory | (k) | The enlargement of the floor area of an existing industrial use building, including an existing industrial (limited) use building, to the extent that the existing floor area is enlarged by 50 percent or less; |
| No impact | (l) | Subject to clause (m), temporary buildings provided that such buildings are removed within two years of the issuance of the building permit; |
| No impact | (m) | A garden suite, provided that such garden suite is removed within ten years; |
| No impact | (n) | A building for the sale of gardening and related products provided that such building is not erected before 15 March and is removed before 15 October of each year; |
| | (o) | A residential use building erected and owned by non-profit housing, provided that satisfactory evidence is provided to the Treasurer that the residential use building is intended for persons of low or modest incomes and that the dwelling units are being made available at values that are initially and will continue to be below current market levels in the City; |
| | (p) | A non-profit health care facility only with respect to the capital cost that is not reimbursed or subsidized by either the Provincial or Federal Governments; |
| | (q) | Farm help lots, severed prior to 9 July 1997; |
| | (r) | Where specifically authorized by a resolution of Council; development on land owned by a non-profit corporation provider of child care and long-term care facilities; |
| | (s) | Where specifically authorized by a resolution of Council, development on land where a public facility is being provided; |
| | (t) | Where specifically authorized by a resolution of Council, development on contaminated land in accordance with the Guideline for Development Charge Reduction Program due to Site Contamination, approved by Council on March 28, 2007. |

Of these 20 exemptions, five are statutory and four produce little or no additional servicing requirement (“No Impact”). Of the remainder:

- (e) and (f) relate to places of worship and cemeteries;
- (g), (h) and (q) relate to agricultural uses;
- (o), (p) and (r) relate to qualifying non-profit projects (housing, health care, child care or long term care);
- (s) relates to Council-approved public facilities;
- (t) relates to Council-approved contaminated site developments;
- (i) relates to small accessory uses.

1.8 In addition to these full exemptions, the by-law provides a 19% discount from the full non-residential charge for commercial (excluding retail, hotel and motel uses), institutional and high-tech industrial uses and a 54% discount for industrial (limited) uses, which includes all industrial except for high technology uses.

1.9 Section 9 of the by-law provides for a 50% reduction in the roads and related component of the development charge for apartments located within 600 metres of a rapid transit station where parking and other criteria are met in order to encourage high density, transit-oriented development.

1.10 Subsections 11(6) and (7) provide for the transition of a residential DC exemption area (bounded by Isabella, Chamberlain, Bronson and Elgin Streets) to non-exempt status, except where site plan agreements have been signed by July 31, 2011. This was done in order to further the Official Plan objectives concerning downtown intensification.

1.11 Section 11 provides for the phase-in of the new development charges over a four-year period, involving 25% increments of the difference in the rate between what could have been put in effect under the 2009 by-law and the rate that would otherwise be in effect under the pre-existing by-law.

1.12 The fundamental rationale for providing these full or partial exemptions, discounts and phasing in, is as follows:

- a) The phasing in of the increased charge was approved during the time of a major international recession. As a result, an effort was made to moderate the impact of the proposed increase in the charge, in the interests of furthering the Ottawa economy. This general approach is also used elsewhere, frequently for shorter time periods, in order to provide the development industry with time (typically several months) to move existing developments forward under the unadjusted charge and/or to adjust pricing, financing and other variables.

- b) The agricultural exemptions are widely granted, in part to reflect the relatively low demand for municipal service increases and, in part, to remove costs from agricultural producers which may serve to discourage their operation.
- c) The place of worship/cemetery exemptions reflect the largely off-peak hour usage of the facilities, in order not to discourage such activities.
- d) Selected non-profit operations and public facilities receive exemptions in order to make them more financially viable, thereby encouraging their provision.
- e) Qualifying developments on contaminated sites receive exemptions in order to financial encourage the remediation and use of such sites, where it might otherwise be unprofitable.
- f) Small accessory uses receive a DC exemption, as they typically do not tangibly add to the need for additional City services.
- g) Various types of non-residential development (e.g. offices and non-high-tech industrial) receive DC exemptions in order to encourage their location in Ottawa and the provision of jobs and economic stimulus associated therewith. The reduction also recognizes the lower servicing requirements of industrial uses in comparison with retail uses, for example.

1.13 While there is a suitable rationale for all of the exemptions, discounts and phase-ins involved, it must be recognized that, where the DC revenue reduction is not based on a reduced demand for service, the servicing cost for the benefiting development should be absorbed by City taxes and user rates, rather than development charge revenues. For this reason, every type of DC reduction that is granted has a City funding consequence. For this reason, such DC revenue reductions should be carefully scrutinized and evaluated, monitored and separately funded.

1.14 By way of comparison, Table 1 sets out the discretionary or voluntary exemptions provided by a dozen significant Ontario municipalities. This survey provides an indication of general municipal practice, although such practice varies, based on Council objectives and priorities.

**TABLE 1
SUMMARY OF DEVELOPMENT CHARGES DISCRETIONARY EXEMPTIONS**

Municipal Name	Exemptions						Other
	Churches/ Places of Worship	Bona fide Farms	Commercial	Industrial	Institutional	Phase-in In Place	
Toronto C	✓			✓		✓	By-law 1347-2013 - public hospital receiving aid under the <i>Public Hospitals Act</i> , college or university as defined in the <i>Education Act</i> , places of worship, cemetery or burial ground, temporary sales offices or pavilions associated with the sale of new homes to the public, industrial uses, development where the City has given approval under the Imagination, Manufacturing, Innovation and Technology Financial Incentives Program pursuant to a CIP, accessory use or accessory structure not exceeding 10 m ² of gfa, non-profit housing, dwelling units or dwelling rooms for which the City has granted approval under the Ontario Renovates component of the Investment in Affordable Housing for Ontario Program, dwelling rooms within a rooming house, temporary building (erected for a continuous period not exceeding 8 months). 20% refund on land, buildings or structures that have met the Tier 2 requirements of the Toronto Green Standard Program.
Durham R	✓	✓	tiered rate system on accessory buildings			✓	By-law 16-2013 - garden suite payable at the one-bedroom apartment, mobile home payable at the apartment of two bedrooms or larger, retirement residence unit payable at the one-bedroom apartment, agricultural uses and farm buildings, places of worship, public hospitals receiving aid under the <i>Public Hospitals Act</i> , building used for parking or loading of motor vehicles, free standing roof-like structures and canopies that do not have exterior walls, no DC applicable on non-residential development if it does not create gfa or increase existing gfa of non-residential development. Phasing - Commercial, Institutional and Industrial - Schedules "C", "D" and "E" - final phasing July 1, 2015 to June 30, 2018.
Halton R	✓	✓	tiered system based on lot coverage				By-law 48-12 - Commercial expansion, hospitals, conservation authority buildings (unless a fee is charged or commercial/retail is conducted), place of worship, seasonal structures and temporary venues, agricultural development, garden suites; higher rate for Greenfield Urban and Rural DCs for wastewater.
Oakville T	✓	✓	cap on coverage tiered based on lot coverage				By-law 2013-020 - non-residential farm building, hospital, conservation authority unless for recreational purposes where fees are charged for commercial purpose, worship area in a place of worship, temporary buildings, non-profit licensed day nursery for employees' children, reduction for non-retail/non-residential development with an FSI greater than 2.0.
Peel R	✓	✓					Agricultural society, colleges, university, hospital, place of worship, agricultural, mobile temporary sales trailer.
Peel R (Caledon)	✓	✓					Agricultural society, colleges.
Mississauga C							Hospitals, colleges, university, mobile temporary sales trailer, temporary building (meeting criteria), cemetery.
York R	✓	✓					Relocation of a heritage house, community use owned by a non-profit corporation, private school, cemetery, agricultural uses, non-residential uses pursuant to section 39 of the <i>Planning Act</i> , accessory building not exceeding 100 m ² of gfa except for any live work units with a retail component, hospitals, place of worship, agricultural.
Niagara R	✓	✓					Granny flats, parking structures, agricultural, place of worship, municipal housing project facilities as set out in section 110 of the <i>Municipal Act</i> , affordable housing projects that receive funding through an agreement with Niagara Regional housing, land owned, used and occupied by a charitable institution (meeting criteria), gas station canopies, Healthcare Complex on Fourth Avenue, St. Catharines, hospital on Main Street East, Grimsby. Partial exemption (50%) for brownfields, community improvement areas.
Hamilton C	✓	✓	partial, stepped rates		partial	✓	Covered sports field, parking structure, colleges and universities, partial Brownfield redevelopment credit, Downtown community improvement areas (90% exemption), affordable housing, agricultural, student residence 50% exemption, heritage buildings, first 5,000 sq. ft. of gfa for non-industrial expansion, hospital, place of worship.
Waterloo R		✓					Development of conservation authority use by the Grand River Conservation Authority, temporary use, home occupation, farming (excluding a farm occupation), accessory building, downtown core areas as set out in Schedule D, hospitals, remediated Brownfield (meeting criteria).
Ottawa C	✓	✓	-	-	-		Place of worship, cemetery, agricultural, accessory building less than 10 m ² , temporary buildings, garden suite provided that such garden suite is removed within ten years, non-profit housing (meeting criteria), non-profit health care facility (meeting criteria), non-profit child care and long-term care facilities authorized by Council.

1.15 Table 2 provides a broad estimate of the 2009-2013 cost of the City's existing DC reduction and phase-in policy in this area, as input to the potential modification thereof.

TABLE 2
CITY OF OTTAWA
ESTIMATED DC REDUCTION/EXEMPTIONS PROVIDED
(JUNE, 2009 – SEPTEMBER, 2013)

Amount (\$)	Description of Exemption/Reduction
\$20,950,099	Non-Residential Discounting
\$12,133,364	Non-Residential Phase-In
\$13,549,301	Residential Phase-In
\$5,989,514	Non-Residential Transition
\$6,772,646	Residential Transition
\$1,614,712	Non-profit Day Care and Long-term Care Facilities
\$5,350,804	Downtown Residential Development
\$1,009,232	Place of Worship and Land Used in Connection With
\$388,222	Churchyard, Cemetery or Burying Ground
\$3,206,285	Non-residential Use for Bona Fide Agricultural Purposes
\$19,544	Farm Retirement Lots
\$2,836	Non-residential Use <108 SF
\$62,167	Temporary Buildings
\$5,427,957	Municipal Capital Facility Designation
\$3,496,326	Non-profit Housing
\$3,715,438	Non-profit Health Care Facility
\$1,363,528	Brownfields
\$491,208	50% Reduction – Roads and Related Services Component
\$5,499,680	50% Reduction – Roads and Related Services Component
\$91,042,862	Total

Source: City of Ottawa

1.16 The estimated \$31.6 million in DC exemptions/reductions represents a small percentage of total DC collections under the City's DC by-law during the 4.25 years involved. These results, together with associated recommendations for the 2014 by-law, are reviewed as follows:

- a) \$8.8 million (28%) relates to non-profit day care, long-term care, housing and health care. It is proposed that those uses continue to be eligible for DC exemption, where specifically authorized by a resolution of Council, with the added proviso that such resolution also designate a specific funding source in the amount of the DC

- exemption, in order that the DC reserve funds can be funded by the amount of the exemption, at the time the DC would otherwise be payable.
- b) \$6.1 million (19%) relates to the 50% reduction in the Roads component of the charge for qualifying apartment development locating in proximity to a rapid transit station.
 - c) \$5.3 million (17%) relates to the exemption for Downtown residential development. This exemption was phased out in 2009 other than for site plan agreements signed by July 31, 2011.
 - d) \$5.4 million (17%) for designated municipal capital facilities. This is typically a mandatory exemption under the DCA or deemed to be.
 - e) \$3.2 million (10%) for non-residential uses for bona fide agricultural purposes, including a small amount (\$19,540) for farm retirement lots. This exemption represents standard municipal practice and reflects the fact that such development typically creates limited demand for municipal service. For this reason, the exemption is recommended for continuance.
 - f) \$1.4 million (4%) for places of worship, churchyards and cemeteries. This exemption represents standard municipal practice and reflects the fact that such development typically involves “off-peak” service requirements that can be more readily accommodated. For this reason, the exemption is recommended for continuance.
 - g) \$1.4 million (4%) for qualifying brownfield development. This exemption serves a sound municipal purpose, in terms of facilitating the re-use of such lands, as part of helping to overcome the financing feasibility constraints of doing so. For this reason, it is recommended for continuance, possibly with an annual upper limit established for the amount of DC revenue to be foregone. This exemption would be subject to the same approval requirements as noted above for the non-profit uses.
 - h) \$65,000 (0%) relates to small non-residential accessory structures and temporary buildings. These exemptions are recommended for continuance, given the low service requirement and DC revenue potential involved.

1.17 The foregone DC revenue associated with the four-year phase-in and transition of the new charges has estimated at approximately \$38.4 million over the period. This phase-in was instituted during extraordinarily negative economic times, which are unlike the steady period of recovery in recent years. In addition, the City is seeking to maximize the availability of growth-related capital revenue sources. For this reason, it is recommended that the DC by-law provide for either:

- a) A two-month grace period following the by-law passage before the new charges are in force; or
- b) The provision that complete building permit applications received prior to by-law passage and issued within three or four months thereof, are subject to the current schedule of charges.

1.18 The non-residential charge reduction for Commercial and Limited Industrial totalled \$21.0 million in foregone DC revenue over the last 4.25 years. It is recommended that the non-residential DC reductions be reconsidered and that separate charge calculations be considered based on variances in service demands and employee density. Where these charges have been considered lower DCs for industrial development, relative to non-industrial development, has resulted while providing for full cost recovery at the same time (in contrast with the City's present non-residential DC charges which involve significant revenues foregone as a result of the discounts).

2. REDEVELOPMENT CREDITS

2.1 Most municipalities include provisions in their DC by-laws that provide a credit or a reduction in development charges payable if the subject development involves the conversion of existing floor space from one use to another, or if an existing building on site is being demolished and replaced. This practice is intended to recognize that existing servicing capacity is freed up when existing development is demolished or converted and that it is appropriate to net the DC value of that released capacity against the charge to be imposed on the replacement development.

2.2 According to s.s.6.6 of the 2009 DC Background Study for the City, any demolitions are to be subject to the five-year redevelopment credit expiry period based on the elapsed time between demolition permit and building permit. This credit is applied to DCs that are payable on the proposed new development. Credits remain with the property and are not transferable to another parcel of land. The value of the demolition credit is based on the rate in effect in the active by-law with the overall development charge reduction not exceeding the amount notionally payable by the space being replaced. The by-law also provides for a phase-in of the provision in which, after July 31, 2011, a credit would not apply, if a building type were legislatively exempt from paying development charges, e.g. school sites.

2.3 As a transition provision under the by-law, development that had already signed a site plan agreement would not be subject to that provision.

2.4 A conversion of non-residential floor area to a residential use is also eligible for a credit; however, conversion of a residential use to a non-residential use (e.g. a house into office space) does not give rise to a credit.

2.5 s.8 of the City's DC By-law No. 2009-216 does not make specific reference to a five year limit between the time of demolition of an existing building and the issuance of a permit for new development. However, in the case of a demolition that is scheduled to occur after the issuance of a building permit, s.s.8(2) provides that if the demolition occurs no later than January 1, 2019, a credit will be provided.

2.6 As indicated above, most municipalities provide some form of redevelopment credit. Typically the credit is calculated by multiplying the number of residential units and or the number of sq.ft. of non-residential GFA that is being demolished or converted, by the applicable development charge rate for the use that is being demolished or converted. This credit is then applied against the development charges that are payable for the new development. If, after applying the credit, the net charge is less than zero, no refund is issued and the remaining balance cannot be transferred to another location or development. Further, if the use being demolished or converted falls into a category of development that is exempt from the payment

of development charges under the municipality's current by-law (for example, in the case of Ottawa, a place of worship) then no credit would be applicable.

2.7 In most cases, the by-law will provide for a time limit between the point of demolition of an existing building and the issuance of a building permit for a new building. That period is generally five years, after which no credit is applicable. A number of municipalities include a provision that, in order to receive a credit, the building being demolished or converted must have been habitable within the period.

2.8 Many municipalities also place the onus on the applicant to provide satisfactory evidence that a building was demolished and replaced within the required time period and that it was habitable prior to demolition.

2.9 As noted in the Calculation Methodology Paper, it is recommended that where a non-residential building is to be demolished or converted to residential use, a credit will be provided in the amount of the theoretical development charges payable if a building permit had been issued to construct the non-residential building. It is also recommended that the window of opportunity for a credit between demolition and building permit issuance for redevelopment be limited to five years before and after building permit issuance.

2.10 An example of a by-law provision that is proposed for consideration in Ottawa is the Region of Durham's existing redevelopment credit policy as set out in s.18 of DC By-law 16-2013. It should be noted that the wording of Durham's policy allows for a ten year time frame between demolition and building permit issuance. The clause is excerpted below and reads as follows:

"18. Reduction of Development Charges For Redevelopment

(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.”

3. INDEXING

3.1 s.s 5.1.10 of the Development Charges Act, 1997 allows for the indexing of charges in a development charge by-law. s.7 of O.Reg 82/98 prescribes the use of the Statistics Canada Quarterly, Construction Price Statistics, Catalogue Number 62-007 for this purpose.

3.2 Section 17 of By-law 2009-216 provides for the mandatory annual indexing of development charges on August 1st of each year commencing on August 1, 2010 based on the most recent annual change in the Statistics Canada Infrastructure Development Charge Price Index published for Ottawa in Catalogue 62-007. This index has been prepared for the City by Statistics Canada using input from the City regarding actual construction costs of development charge funded projects. The new inflation factor was considered by the City and development industry to better reflect the localized benchmark costs for Ottawa than the more commonly used Non-Residential Building Construction Price Index. This has resulted, over the past ten years, in the cumulative inflationary rate increases being lower than the prescribed index over the same timeframe (Table 3).

3.3 Development charge by-laws in most municipalities in Ontario provide for annual indexing with a minority of municipalities indexing semi-annually. Further, in most municipal by-laws the indexing provision is mandatory (i.e. “shall index”) rather than discretionary (i.e. “may index”).

3.4 The City proposes to continue to use of the Ottawa-specific Statistics Canada index with mandatory annual indexing. It is proposed to change the date of indexing from August 1st, to July 2nd each year.

TABLE 3

Comparison of Infrastructure Construction Price Index and Non-Residential Building Construction Price Index

Year	OTTAWA INFRASTRUCTURE CONSTRUCTION PRICE INDEX ¹	Yr Over Yr % Change	NON-RES BUILDING CONSTRUCTION PRICE INDEX (OTTAWA- GATINEAU) ²	Yr Over Yr % Change
2001	100.0		98.3	
2002	102.3	2.3%	100.0	1.8%
2003	104.8	2.4%	103.6	3.6%
2004	107.8	2.9%	109.3	5.5%
2005	113.1	4.9%	114.0	4.3%
2006	120.0	6.1%	120.7	5.9%
2007	125.0	4.2%	128.8	6.6%
2008	133.3	6.6%	140.1	8.8%
2009	136.7	2.6%	140.0	0.0%
2010	141.0	3.1%	144.5	3.2%
2011	145.5	3.2%	151.8	5.1%
2012	149.4	2.7%	155.8	2.6%
2013	n/a		155.5	-0.2%
% Change 2001 to 2012		49.4%		58.5%
% Change Last 5 years (2007-2012)		19.5%		21.0%

¹ An analytical price index series measuring annual changes in the cost of municipal infrastructure construction funded by development charges as developed by Statistics for the City of Ottawa and published in Cat. 62-007

² Statistics Canada, Capital Expenditure Price Statistics, Catalogue 62-007-X. 2002 = 100

H:\OTTAWA\2014 DC\Infrastructure Construction Price Index (OTT).xls

4. COLLECTION TIMING

4.1 Sections 26 to 28 of the Development Charges Act, 1997 set out provisions related to the timing for collection development charges. There are several options available:

- (a) Development charges may be payable at the time of building permit issuance (s.s.26(1));
- (b) A DC by-law may provide for payment at the time of executing a Subdivision or Consent agreement for road, water, waste water and storm services (s.s.26(2));
- (c) The municipality may enter into an agreement with a developer for a different payment date (s.s.27(1)).

s.28 states that a municipality is not required to issue a building permit unless the development charge has been paid.

4.2 The City generally collects development charges at the building permit stage. s.s.15(5) of the City's DC by-law includes an exception wherein non-residential development charges (excluding institutional) for services other than roads, sewer, water, storm, fire and police are payable two years after building permit issuance if provided for in a site plan or subdivision agreement. These deferred payments are subject to indexing.

4.3 Most municipalities, including the Cities of Toronto and Hamilton, and the Regions of Peel and Waterloo, collect develop charges at building permit stage and include provisions in their by-law that would allow for an agreement with a developer for an earlier or later payment date. However, there are municipalities that collect some or all road, sewer and/or water development charges earlier, such as at the time of executing a subdivision agreement (e.g. Halton, York and Durham).

4.4 For example, developers of residential subdivisions in Halton must pay the water service, wastewater service, and road service components at the execution of the residential subdivision agreement. The charge is calculated based upon the proposed number and type of dwelling units; with respect to blocks intended for future development, the charge is based on the maximum number of units permitted under the then applicable zoning.

4.5 In Durham Region, development charges for water supply, sanitary sewerage and Regional roads for a plan of subdivision are payable immediately upon signing of the subdivision agreement, or at the owner's election, 50% upon the 1st anniversary of the execution of the subdivision agreement and 50% upon the 2nd anniversary, or at building permit if sooner, with payment to be secured by a letter of credit in the amount of 55% of the original

Regional Development Charges payable. The Region will maintain the Letter of Credit at no more than 110% of the amount of the outstanding charges.

4.6 A number of municipalities will enter into deferral agreements for certain types of development such as non-residential and high density. In Hamilton, deferrals are available for non-residential developments, apartment developments, student dormitories, nursing homes and other group residential developments for up to a maximum of 5 years. The deferral agreement is subject to interest charges and administration fees.

4.7 The average elapsed time between subdivision agreement and building permit issuance is one to two years. Collection at subdivision agreement stage provides a small but tangible source of financing. However, this may introduce challenges for developers, particularly in the case of non-residential and high density development and smaller subdivisions. For that reason, it may not be sound practice in all circumstances.

4.8 The City of Ottawa is giving consideration to collection of the transit portion of development charges at the subdivision agreement stage. This would be a voluntary arrangement as this condition cannot be enforced under the DCA.

4.9 No other changes to the policy regarding timing of collection are proposed.

APPENDIX H
PROPOSED 2014 CITY OF OTTAWA
DEVELOPMENT CHARGES BY-LAW

BY-LAW NO. 2014-

A by-law of the City of Ottawa for the imposition of development charges.

WHEREAS the Council of the City of Ottawa may by by-law, pursuant to subsection 2(1) of the *Development Charges Act, 1997*, impose development charges against land to pay for increased capital costs required because of increased needs for services arising from development of the area to which the by-law applies and the development requires certain approvals recited in subsection 2(2) of the *Development Charges Act, 1997*;

AND WHEREAS Council has reviewed all matters required to be considered under the *Development Charges Act, 1997* and the regulations made thereunder, including provision of the proposed by-law and background study;

AND WHEREAS Council has given public notice, held a public meeting and consulted with the public in accordance with the provisions of the *Development Charges Act, 1997*;

AND WHEREAS Council, upon reviewing the matters and after the public consultation, deems it necessary to enact this by-law to provide for the imposition of development charges against land;

THEREFORE the Council of the City of Ottawa enacts as follows:

DEFINITIONS

1. In this by-law:

“Act” means the *Development Charges Act, 1997*, and all regulations made thereunder;

“apartment dwelling” means a dwelling unit within a residential building or the residential portion of a mixed use building containing three or more dwelling units which are:

- i) connected by a common hall or stairway;
- ii) separated horizontally from other dwelling units within the building; or
- iii) defined as a back-to-back townhome dwelling that is developed as a block approved for development at a minimum density of sixty (60) units per hectare, excluding the site area used or intended to be used as common outdoor amenity space, pursuant to an executed agreement entered into under the *Planning Act*, section 41; as amended;

and also includes:

- i) a single story dwelling unit less than 1000.0 square feet in size in a building of more than two stories; and
- ii) a secondary dwelling unit.

“back-to-back townhome dwelling” means a building containing a minimum of six and no more than sixteen dwelling units that is divided vertically, where each unit is divided by a common wall, including a common rear wall without a rear yard setback and whereby each unit has an independent entrance from the outside accessed through the front yard or exterior side yard;

“bedroom” means any room used or designed or intended for use as sleeping quarters but does not include a living room, dining room, kitchen, den, study or similar area;

“building or structure” means an enclosed or partially-enclosed area and includes an air-supported structure;

“board of education” means a board of education, as defined in subsection 1(1) of the *Education Act*;

“*Building Code Act*” means the *Building Code Act, 1992*, S.O. 1992, c. 23, as amended;

“capital costs” has the same meaning it has in the Act;

“City” means the City of Ottawa;

“complete building permit application” means the submission of a complete application form clearly identifying the work and occupancy covered by the permit, legal description, contact information and valuation of the proposed building. The application shall be accompanied by the permit fee paid in full pursuant to the City’s Building Bylaw and two (2) sets of plans and specifications which indicate the nature and extent of the work (architectural, structural, mechanical and electrical plans sealed and signed by the appropriate professional as required for the complete building including a geotechnical report, site and servicing plans and a survey) in sufficient detail to establish compliance to the *Building Code Act, 1992*, S.O.1992, c. 23, as amended, the Building Code and any other applicable law. For a footing and foundation phased permit approved by the Chief Building Official, a complete building permit application means the submission of a complete application form as indicated above and shall be accompanied by a permit fee for the portion of the work for which the approval is required. This type of application shall be accompanied by two (2) sets of structural plans and specifications (sealed and signed by a Professional Engineer) for the entire building including excavation and shoring details as required, a geotechnical report and complete architectural plans for the above grade;

“complete planning application” means an application for an official plan amendment, zoning by-law amendment, site plan approval, or approval of a draft plan of subdivision under the *Planning Act*, which application is submitted with

all of the information and documentation required by the City pursuant to By-law No. 2001-451, as amended;

“Confederation Line” means the light rail line to run from Blair Station to Tunney’s Pasture

“council” means the Council of the City of Ottawa;

“designated area” means the area described in Section 2 of this by-law, within which development charges are imposed;

“designated services” means the service recited in Section 3 of this by-law for which development charges are imposed;

“designated uses of land, buildings or structures” means the uses designated in Section 4 of this by-law;

“development” means the construction, erection or placing of one or more buildings or structures on land or the making of an addition or alteration to a building or structure that has the effect of increasing the size or usability thereof, and includes redevelopment;

“development charge” means a charge against land imposed pursuant to this by-law;

“dwelling unit” means a room or suite of rooms used, designed or intended to be used by one or more persons living together, in which culinary and sanitary facilities are provided for the exclusive use of such a person or persons in a residential use or mixed use building or structure;

“garden suite” means a one-unit detached residential structure, containing bathroom and kitchen facilities that is ancillary to an existing residential structure and that is designed to be portable;

“grade” means the average level of finished ground adjoining a building or structure at all exterior walls;

“gross floor area” means:

- (a) in the case of a residential use building or structure or in the case of a mixed-use building or structure with respect to the residential use portion thereof, the total area of all floors measured between the outside surfaces of exterior walls or between the outside surfaces of exterior walls and the centre line of party walls separating the dwelling unit from another dwelling unit or other portion of the building;
- (b) in the case of a non-residential use building or structure or in the case of a mixed-use building or structure in respect of the non-residential portion

thereof, the total area of all building floors above or below grade measured between the outside surfaces of the exterior walls or between the outside surfaces of exterior walls and the centre line of party walls separating two uses; and

- (i) includes the area of a mezzanine as defined in the Ontario Building Code; and
- (ii) excludes those areas used exclusively for parking of vehicles unless the parking of vehicles is the primary use of the building or structure;

“high technology use” means having a significant dependence on science and technology innovation that leads to new or improved services primarily through data processing and programming, computer-aided design, administrative and clerical duties; but, does not include the physical manufacturing or physical assembly by hand or machinery leading to improved products whether or not attached to a building used for high technology use as defined above. For clarity physical manufacturing or physical assembly processes that operate with computer assistance are not considered a high technology use as defined above.

“industrial use” means lands, buildings or structures used or designed or intended for use for physical manufacturing or physical assembly by hand or machinery that leads to new or improved products; producing or processing of raw goods; warehousing or bulk storage of goods; distribution centre; research or development in connection with physical manufacturing or physical assembly by hand or machinery that leads to new or improved products; processing of raw goods and storage-but does not include retail or offices-unless it is attached to a building used for industrial use as defined above;

“institutional uses” means only the following uses:

- (a) hospitals;
- (b) nursing homes and homes for the aged;
- (c) schools; and

excludes any building or part of a building or structure which is a dwelling unit.

“local board” means local board as defined in the Act;

“mobile home” means any dwelling that is designed to be made mobile, and constructed or manufactured to provide a permanent residence for one or more persons, but does not include a travel trailer or tent trailer;

“mixed use” means land, building or structures used or designed or intended for a combination of non-residential uses and residential uses;

“multiple dwelling” means a dwelling unit other than a single-detached dwelling, semi-detached dwelling, row dwelling, apartment dwelling or mobile home;

“non-profit health care facility” means non-profit corporations having as the principal objections of incorporation:

- (a) community health centres and other non-profit health facilities as defined in the *Charitable Institutions Act, R.S.O. 1990, c. C.9, s. 1* and the *Corporations Act, R.S.O. 1990, c. C.38, Part III*;
- (b) community care access centres as defined in the *Community Care Access Centre Corporations Act, 2001, S.O. 2001, c. 33, as amended, s. 2*;
- (c) independent health facilities designated under the *Independent Health Facilities Act, R.S.O. 1990, c. I. 3, as amended, s. 2(b)*;
- (d) being a service provider, whose services are regulated by the *Long Term Care Act, 1994, S.O. 1994, c. 26, as amended*; or
- (e) public hospitals as defined in the *Public Hospitals Act, R.S.O. 1990, c.P.40*.

“non-residential use” includes all land use other than residential use but excludes industrial use;

“non-profit housing” housing which is or is intended to be offered primarily to persons or families of low income and which is owned or operated by:

- (a) a non-profit corporation being a corporation, no part of the income of which is payable to or otherwise available for the personal benefit of a member or shareholder thereof; or
- (b) a non-profit housing co-operative having the same meaning as in the *Co-operative Corporations Act, R.S.O. 1990, c. C.35, as may be amended from time to time*;

“office” means lands, buildings or structures used or designed or intended for use for a practice of a profession; the transaction of administrative, clerical, data processing and programming, computer-aided design or management business; and, the carrying on of a business, occupation or the conduct of a non-profit organization including government and includes a high technology use

“official plan” means the Official Plan of the City, as amended or substituted for from time to time;

“owner” means the owner of land or a person who has made application for an approval for the development of land upon which a development charge is imposed;

“place of worship” means that part of a building or structure that is exempt from taxation as a place of worship under the *Assessment Act, R.S.O. 1990, c. A.31, as amended*;

“*Planning Act*” means the *Planning Act, R.S.O. 1990, c. P.13, as amended*;

“prescribed” means prescribed by the regulations made under the Act;

“reasonable cost” for subsection 15(1) refers to the price for reimbursement as set out in Schedule “D” of this by-law, supported by back-up documentation, and indexed accordingly with the provisions of section 18 of this by-law;

“residential use” means land or buildings or structures of any kind whatsoever used, designed or intended to be used as living accommodations for one or more individuals and includes land or a building or part thereof used, designed or intended for a single-detached dwelling, semi-detached dwelling, row dwelling, apartment dwelling, or multiple dwelling;

“retail” 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 to the general public, or significant portion thereof, for consumption or use and shall include restaurants but shall exclude all offices;

“rooming and/or boarding house” means a dwelling in which lodging is provided to an individual, for gain, which may include communal kitchen or bathroom facilities and where each room or suite of rooms, which may include either individual kitchen or individual bathroom facilities, but not both, constitutes a separate, independent occupancy in which a person sleeps;

“row dwelling” means a dwelling unit in a residential use or mixed use building or structure consisting of more than two dwelling units having one or two vertical walls but no other parts attached to another dwelling unit;

“rural area” means all lands designated and lying outside of the Urban Area Boundary on Schedule “A” to the Official Plan;

“secondary dwelling unit” means a dwelling unit that is subsidiary to and located in the same building as an associated principal dwelling unit; and its creation does not result in the creation of a semi-detached dwelling, row dwelling or a multiple dwelling.

“semi-detached dwelling” means a dwelling unit in a residential use building consisting of two principal dwelling units having one vertical wall or one horizontal wall but no other parts attached to another principal dwelling unit above grade and shall include a duplex;

“single-detached dwelling” and “single detached” means one principal dwelling unit in a residential use building that is not attached above grade to another principal building or structure used for a residential use.;

“theoretical development charge” means the maximum non-residential development charge that the City could impose pursuant to the background study endorsed by City Council;

“transit vehicles and buildings” means the buses, trains, vehicles and other accessory buildings or structures supporting transit;

“treasurer” means the City Treasurer or designate;

“urban area” means the lands having a designation on Schedule “B” to the Official Plan.

DESIGNATED AREA

2. (1) The designated area within which development charges are imposed and to which this development charge by-law applies, in accordance with the provisions of this by-law, are all lands within the geographic territorial limits of the City of Ottawa.
- (2) The Inside the Greenbelt Area is shown as Area 1 on Schedule “A” and includes the shaded area shown as “Greenbelt” on Schedule “A”.
- (3) The Outside the Greenbelt Area is shown as Area 2 on Schedule “A”.
- (4) The Rural Area is shown as Area 3 on Schedule “A”.

DESIGNATED SERVICES

3. (1) It is hereby declared by the Council of the City that all development of land within the City will increase the need for services.
- (2) Development charges shall be imposed for the following designated services to pay for the increased capital costs required because of increased needs for services arising from development:
 - (a) Roads and Related Services;
 - (b) Sanitary Sewer (Wastewater);
 - (c) Water;
 - (d) Stormwater Drainage
 - (e) Protective Services;
 - (g) Public Transit;
 - (h) Parks Development;
 - (i) Recreation Facilities;
 - (j) Libraries;
 - (m) Paramedic Service; and
 - (n) Corporate Studies
- (3) The development charge applicable to the development as determined by this by-law shall apply without regard to the services required or used by any individual development.

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- (4) Notwithstanding subsection (3), in regards to Area 3, development charges shall apply only in respect of designated services provided or intended to be provided by the City.

DESIGNATED USES

4. (1) Development charges are adopted and imposed in accordance with Schedule “B” and Schedules “J” to “N” for the following types of residential use:
- (a) Single and semi-detached dwelling;
 - (b) Apartment dwelling (one bedroom or bachelor)
 - (c) Apartment dwelling (two or more bedrooms);
 - (d) Multiple dwelling;
 - (e) Row dwelling; and
 - (f) Mobile Home.
- (2) Development charges are adopted and imposed in accordance with Schedule “C” and Schedules “J” to “N” for all of the following types of non-residential use:
- (a) non-residential; and
 - (e) industrial.
- (3) The development charge payable for a rooming and/or boarding house shall be the rate for a single family dwelling multiplied by R where R is the number of persons the rooming and/or boarding house is designed to accommodate divided by four and rounded to nearest, lower whole number.

DEVELOPMENT CHARGE RULES

5. (1) The development charges herein have been calculated in the background study such that the total of all development charges on anticipated development do not exceed the capital costs determined under paragraphs 2 to 8 of subsection 5(1) of the Act. In addition, the charges for the residential use and non-residential use development and the sub-types noted therein, have been calculated such that they do not exceed the capital costs that arise from the increase in the need for service for each individual type of development;
- (2) The development charges established in Schedule “B” to this by-law shall be and are hereby imposed on Areas 1, 2 and 3 as set out in Schedule “A” to this by-law, as the case may be, in respect of the designated uses of land, buildings or structures within the designated area for the designated services with respect to residential use development;
- (3) The development charges established in Schedule “C” to this by-law shall be and are hereby imposed on Areas 1, 2 and 3 as set out in Schedule “A” to this by-law, as the case may be, in respect of the designated uses of land, buildings or structures within the designated area for the designated services with respect to non-residential use development;

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- (4) The development charges established in Schedules “B” and “C” to this by-law shall apply in the case of a mixed-use development based upon the applicable residential and non-residential use portions of the development under subsections 5(2) and 5(3) of this by-law, respectively;
 - (5) In respect of the Rural Area, those lands shown as Area A on Schedule “O” to this by-law shall pay the entire public transit component of the development charge imposed by this by-law and those lands shown as Area B on Schedule “O” shall pay one-third of the public transit component of the development charge imposed by this by-law and the entire transit component of the development charge imposed by this by-law shall be paid in respect of development within the urban area
 - (6) The development charges imposed pursuant to subsections 5(2) and 5(3) of this by-law shall apply, in accordance with this by-law and the Act, to any development which 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 the *Condominium Act*; or
 - (g) the issuing of a permit under the *Building Code Act* in relation to a building or structure.

IMPOSITION OF CHARGE

6. The development charges described in Schedules “B” and “C” shall be imposed with respect to the designated use of any land, building or structure which requires any of the approval actions described in subsection 5(5) of this by-law and shall be calculated as follows:
 - (a) in the case of residential use development or the residential portion of a mixed-use development based upon the number and type of dwelling units;
 - (b) in the case of non-residential use development or the non-residential use portion of a mixed-use development, based upon the gross floor area and type of such development;
 - (c) notwithstanding subsection 6(a), in the case of residential use development charges described in Schedule “B” all mobile homes, single-detached dwellings, semi-detached dwellings, row dwellings and multiple dwellings with three or more bedrooms and less than or equal to 1000.0 square feet of gross floor area and for which development charges are imposed by this by-law, shall pay a

development charge rate on the same basis as an apartment dwelling with two or more bedrooms.

EXEMPTIONS

- 7.
- (1) The following shall be exempt from development charges:
 - (a) All residential use building permits not resulting in the creation of an additional dwelling unit;
 - (b) The creation of one or two additional dwelling units in an existing single-detached dwelling provided that the total gross floor area of the additional one or two dwelling units does not exceed the gross floor area of the existing single-detached dwelling;
 - (c) The creation of one additional dwelling unit in a residential use building, other than a single-detached dwelling, provided that the additional dwelling unit does not have a gross floor area greater than:
 - (i) in the case of a semi-detached dwelling or row dwelling, the gross floor area of the existing dwelling, or
 - (ii) in the case of any other residential use building, the gross floor area of the smallest dwelling unit contained in the residential use building;
 - (b) Buildings or structures owned by and used for the purpose of a city, or school board, as defined in subsection 1(1) of the *Education Act*;
 - (c) Every place of worship and the land used in connection therewith, other than the charge for public transit
 - (f) Every churchyard, cemetery or burying ground exempt under the *Assessment Act* for taxation purposes;
 - (g) Non-residential use buildings used for *bona fide* agricultural purposes;
 - (h) Farm retirement lots in accordance with the official plan;
 - (i) Non-residential use development involving the creation or addition of accessory uses containing less than ten square metres of gross floor area;
 - (j) Non-residential use building permits not resulting in the creation of additional gross floor area;
 - (k) The enlargement of the floor area of an existing industrial use building, including an existing industrial (limited) use building, to the extent that the existing floor area is enlarged by 50 percent or less;
 - (l) Subject to clause (m), temporary buildings provided that such buildings are removed within two years of the issuance of the building permit;
 - (m) A garden suite, provided that such garden suite is removed within ten years;
 - (n) A building for the sale of gardening and related products provided that such building is not erected before 15 March and is removed before 15 October of each year;
 - (o) A residential use building erected and owned by non-profit housing, provided that satisfactory evidence is provided to the Treasurer that the

residential use building is intended for persons of low or modest incomes and that the dwelling units are being made available at values that are initially and will continue to be below current market levels in the City;

- (p) A non-profit health care facility only with respect to the capital cost that is not reimbursed or subsidized by either the Provincial or Federal Governments;
 - (q) Farm help lots, severed prior to 9 July 1997;
 - (r) Where specifically authorized by a resolution of Council; development on land owned by a non-profit corporation provider of child care and long-term care facilities;
 - (s) Where specifically authorized by a resolution of Council, development on land where a public facility is being provided;
 - (t) Where specifically authorized by a resolution of Council, development on contaminated land in accordance with the Guideline for Development Charge Reduction Program due to Site Contamination, approved by Council.
- (2) Unless specifically stated to the contrary in the a Council resolution or by-law providing a development charge exemption for a municipal capital facility, the development charge in respect of public transit shall be payable.

SPECIFIC AREA SPECIFIC CHARGES

- 8
- (1) A development charge in respect of Millennium Park is imposed in accordance with Schedule “J” against the lands identified in Schedule “E”. Development within the lands set forth in Schedule “E” shall not be liable for the Parks Development (District Park) component of the development charges set forth in Schedules “B” and C” to this by-law.
 - (2) A development charge in respect of Flag Station Road is imposed in accordance with Schedule “K” against the land identified in Schedule “F”.
 - (3) A development charge in respect of Provence Avenue is imposed in accordance with Schedule “L” against the land identified in Schedule “G”.
 - (4) A development charge in respect of the Richmond Sanitary Sewer is imposed in accordance with Schedule “M” against the land identified in Schedule “H”.
 - (5) A development charge in respect of the Manotick Water Supply and Sanitary Sewer is imposed in accordance with Schedule “N” against the land identified in Schedule “I”.
 - (6) Sections 5, 6 and 9 of this by-law apply with the necessary modifications to the development charges imposed pursuant to this section.

REDEVELOPMENT OF LAND CREDITS

9. (1) Subject to subsection (8), where development occurs on a site which involved within the immediately previous 10 years the demolition of a previously existing building or structure in receipt of the same services, at the time the original building was constructed, available to the building or structure to be constructed or will involve such demolition to permit the issuance of a building permit for the construction of the subject development, a credit will be provided against the development charge so that only the net increase in residential use dwelling units or non-residential use gross floor area is charged.
- (2) Where a non-residential use building, or portion, is to be converted to a residential use, or a non-residential use building demolished and a residential use building erected in its place, a credit, not to exceed the amount of the development charges payable, will be provided in the amount of the theoretical development charges that would have been payable had a building permit been used to construct the non-residential use building, or portion thereof, being converted at the rate in accordance with this by-law, provided that the issuance of a building permit to permit the construction of the subject development occurs no later than 1 January 2019.
- (3) The credit to be provided pursuant to subsection (2) shall be determined in accordance with Schedules “C” according to the gross floor area of the building that had been used for non-residential uses.
- (4) Where a credit for a non-residential use building, or portion thereof, is provided pursuant to subsection (2), no credit for that non-residential use building or portion thereof shall be provided pursuant to subsection (1).
- (5) The credits provided under this section relate only to the land, including any parcel subject to the same site plan approval for the proposed development, upon which the building was demolished or converted and are not transferable to another parcel of land.
- (6) Subject to subsection (7), after July 31, 2011, the credits provided under this section do not apply based upon an existing or previously existing development, which is exempt under the provisions of this by-law.
- (7) Credits provided under this section based upon an existing or previously existing development, which is exempt under the provisions of this by-law will continue to be provided after July 31, 2011 where, on or prior to July 31, 2011, the owner of the subject lands and the City have signed a site plan agreement in respect of such redevelopment.
- (8) As of 1 January 2019, the reference to 10 years in subsection (1) is repealed and five years is substituted therefore.

DEVELOPMENT IN THE VICINITY OF TRANSIT STATIONS ON THE CONFEDERATION LINE

10. (1) The development charges otherwise imposed by this by-law in respect of apartment dwellings shall be reduced by an amount equivalent to 50% of the roads and related services component of such development charge where all of the following criteria are met:
- (a) The lot upon which the apartment dwelling is to be located is located within 600 metres of a rapid transit station on the Confederation Line. The 600 metre distance is measured as the shortest perpendicular distance between the lot lines of the lot containing the use and the centre of the existing or proposed rapid transit station platform.
 - (b) The parking places provided in respect of the apartment dwellings shall not exceed one parking place per dwelling unit excluding visitor parking in such calculation.
- (2) Despite clause (1)(a), where the lot is separated from the rapid transit station by a highway, grade-separated arterial roadway, railway yard, watercourse, private lands or any other major obstacle such that the actual walking distance to the rapid transit station is increased to beyond 800 metres, the reduction will not be applicable.
- (3) If additional parking is made available in excess of the standard set forth in subsection (1) at a later date, the full roads and related services component of the development charge will then be payable by the then owner of the lands in respect of which the reduced development charge payment was made.
- (4) This section is repealed on January 1, 2019.

SERVICES-IN-LIEU CREDITS

11. Where the City has previously permitted the provision of services-in-lieu of the payment of all or any portion of a development charge, the development charge payable by the owner will be reduced by an amount equal to the reasonable cost to the owner of providing the service in accordance with the agreement, less any credit or payment that has already been provided by the City to the owner in respect of such services-in-lieu.

TRANSITIONAL PROVISIONS

12. (1) Subject to subsection (2), the applicable development charge under this by-law for the period from the date of the enactment of this by-law to September 30, 2014 shall be in accordance with the transitional rates and the categories set forth in Schedules “B” and “C” to this by-law.
- (2) The development charges in Schedules “J” to “N” shall apply in addition to the amounts applicable pursuant to subsection (1).

- (3) Residential development on the lands shown on Schedule “E” to By-law 2004-298, as amended, and residential development fronting on Isabella Street and Chamberlain Avenue between Bronson Avenue and Elgin Street shall continue to be exempt from development charges under this by-law after 31 July 2011 if the owner of the subject lands and the City have signed a site plan agreement in respect of such residential development on or before 31 July 2011.

COLLECTION PROCEDURES

13. (1) The Treasurer shall collect the development charge in accordance with the provisions of this by-law and the Act.
 - (2) Where an agreement has been entered into between the City and the owner providing for payment of the development charge at any time other than the issuance of the building permit, then the Treasurer shall collect the applicable development charges.
 - (3) Where a development charge or any part thereof remains unpaid after it is payable, the Treasurer shall add the unpaid amount to the tax roll and shall be collected in the same manner as taxes.

CONFLICT

14. Where a conflict exists between the provisions of this by-law and any agreement between the City and the owner, with respect to land to be charged under this by-law, the provisions of such agreement prevail to the extent of the conflict.

SERVICES IN LIEU OF DEVELOPMENT CHARGES AND OVERSIZING

15. (1) The City may agree to allow a person to perform work that relates to a service on which this development charge by-law is based.
 - (2) Where a person is permitted by the City to install works identified in Schedule “D” to this by-law, the person, subject to subsection (3), will be reimbursed for the reasonable cost of such works in accordance with the amounts set forth in Schedule “D”.
 - (3) To receive the contingency amount identified in Schedule “D”, the person shall apply to the General Manager, Planning and Growth Management, or the General Manager’s designate, providing justification as to why such person is entitled to such amount and the decision of the General Manager or the General Manager’s designate, as to the entitlement of such person to the contingency amount shall be final.

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- (4) No person shall receive development charge credits for works done by such person by any amount in excess of the total development charge payable for the service provided by the owner to the City or for any part of the cost of the work that relates to a level of service beyond that described in paragraph 4 of subsection 5(1) of the Act.

TIMING OF THE CALCULATION AND PAYMENT

16. (1) Subject to subsection (2), the development charge shall be calculated as of and shall be payable on the date the first building permit is issued in relation to a building or structure on land to which the development charge applies.
- (2) Subject to meeting the qualification in subsection (3), where phased building permits are being issued in respect of a building, at the request of the owner the development charge shall be calculated and due at either the first building permit for the building or the building permit that allows construction above grade.
- (3) A residential building must be a minimum of 18,000 square feet in size and a non-residential building must be a minimum of 50,000 square feet in size in order to be eligible for payment of development charges upon issuance of a building permit that allows construction above grade.
- (4) Notwithstanding subsections (1) and (2), the City may provide that the development charge is payable immediately upon the parties entering into a subdivision or consent agreement. Further, an owner and the City may enter into an agreement respecting the timing of the payment of development charge or a portion thereof or for the provision of services in lieu of the payment of all or any portion of development charge and the terms of such agreement shall then prevail over the provisions of this by-law.
- (5) Unless otherwise directed by Council, the development charge shall be payable in money.
- (6) All residential development charges imposed by this by-law shall be rounded to the nearest dollar and all other development charges imposed by this by-law and the amounts set out in Schedule "D" shall be rounded to the nearest cent.
- (7) Despite subsections (1), (2) and (4), in respect of non-residential development, the development charges in respect of the services not enumerated in the *Development Charges Act*, subsection 5(5) are due two years after the date a building permit is issued if the site plan or subdivision agreement in respect of such development contains a provision permitting the City to call, for payment of the outstanding development charges, upon the security provided for the development in the event of non-payment of development charges at the expiry of the two year period.

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- (7) The amounts, payment for which are deferred under subsection (6), shall be indexed in accordance with section 18.
 - (8) Subsections (7) and (8) do not apply to institutional development.

RESERVE FUND

17. (1) The development charges imposed by this by-law for Roads and Related Services shall be paid into the Roads and Related Services Development Charges Reserve Fund and all development charges imposed by the City by any development charge by-law for roads and related services purposes, other than the area specific charges for Provence Avenue and Flag Station Road, shall be deemed to be in respect of a single service.
- (2) The development charges imposed by this by-law for Sanitary Sewer (Wastewater) services shall be paid into the Sanitary Sewer Development Charges Reserve Fund and all development charges imposed by the City by any development charge by-law for waste water purposes, other than the area specific charges for Richmond, Manotick, and Provence Avenue shall be deemed to be in respect of a single service.
- (3) The development charges imposed by this by-law for Water services shall be paid into the Water Development Charges Reserve Fund and all development charges imposed by the City by any development charges by-law for water purposes, other than the area specific charge for Manotick, shall be deemed to be in respect of a single service.
- (4) The development charges imposed by this by-law for Stormwater Drainage services shall be paid into the Stormwater Drainage Development Charges Reserve Fund and all development charges imposed by the City by this development charges by-law for storm water purposes shall be deemed to be in respect of a single service.
- (5) The development charges imposed by this by-law for Protective services shall be paid into the Protective Services Development Charges Reserve Fund and all development charges imposed by the City by any development charge by-law for police purposes shall be deemed to be in respect of a single service.
- (7) The development charges imposed by this by-law for Public Transit shall be paid into the Public Transit Development Charges Reserve Fund and all development charges imposed by the City by any development charge by-law for transitway, transit vehicles and buildings purposes shall be deemed to be in respect of a single service.
- (8) The development charges imposed by this by-law for Parks Development, including the Park Development (District Park) services shall be paid into the

Parks Development Charges Reserve Fund and all development charges imposed by the City by any development charges by-law for parks development purposes, other than the area specific charge or Millennium Park, shall be deemed to be in respect of a single service.

- (9) The development charges imposed by this by-law for Recreation Facilities shall be paid into the Recreation Facilities Development Charges Reserve Fund and all development charges imposed by the City by any development charges by-law for recreation purposes shall be deemed to be in respect of a single service.
- (10) The development charges imposed by this by-law for Libraries shall be paid into the Libraries Development Charges Reserve Fund and all development charges imposed by the City by any development charges by-law for library purposes shall be deemed to be in respect of a single service.
- (11) The development charges imposed by this by-law for Paramedic Services shall be paid into the Paramedic Services Development Charges Reserve Fund and all development charges imposed by any development charges by-law for emergency medical services purposes shall be deemed to be in respect of a single service.
- (12) The development charges imposed by this by-law for Development Charge Corporate Studies purposes shall be paid into the Corporate Studies Reserve Fund and all development charges imposed by the City by any by-law for City Development Charges Growth Study purposes shall be deemed to be in respect of a single service.
- (13) The development charges imposed by this by-law for Millennium Park purposes shall be paid into the Millennium Park Development Charge Reserve Fund and all development charges imposed by the City by any by-law for Millennium Park purposes shall be deemed to be in respect of a single service.
- (14) The development charges imposed by this by-law for Flag Station Road shall be paid into the Flag Station Development Charge Reserve Fund and all development charges imposed by the City by any by-law for Flag Station Road shall be deemed to be in respect of a single service.
- (15) The development charges imposed by this by-law for Provence Avenue purposes shall be paid into the Provence Avenue Development Charge Reserve Fund and all development charges imposed by the City by any by-law for Provence Avenue purposes shall be deemed to be in respect of a single service.
- (16) The development charges imposed by this by-law for Richmond Village sanitary sewer purposes shall be paid into the Richmond Village sanitary sewer Reserve Fund and all development charges imposed by the City by any by-law for Richmond Village sanitary sewer purposes shall be deemed to be in respect of a single service.

- (19) The development charges imposed by this by-law for Manotick Water Supply purposes shall be paid into the Manotick Water Supply Development Charge Reserve Fund and all development charges imposed by the City by any by-law for Manotick Water Supply purposes shall be deemed to be in respect of a single service.
- (20) The development charges imposed by this by-law for Manotick Sanitary Sewer purposes shall be paid into the Manotick Sanitary Sewer Development Charge Reserve Fund and all development charges imposed by the City by any by-law for Manotick Sanitary Sewer purposes shall be deemed to be in respect of a single service.

INDEXING

18. (1) The development charge rates set out in this by-law shall be adjusted by the Treasurer, without amendment to this by-law, commencing on August 1, 2015 in accordance with the most recent annual change (1 October to 30 September) in the Statistics Canada Infrastructure Development Charge Price Index, Catalogue Number 62-007. For greater certainty, the Infrastructure Construction Price Index from Catalogue Number 62-007 for Ottawa will be used if such continues to be published.

(2) Should Catalogue Number 62-007 no longer be published, the development charge rates set out in this by-law shall be adjusted in accordance with such measure as is specified in the *Development Charges Act* or the regulations made thereunder.

SCHEDULES

19. The Schedules appended to this by-law shall be deemed to form part of this by-law and all information contained therein shall have the same force and effect as though it had been recited directly in the sections of this by-law.

APPLICATION OF THE ACT

20. Any matter not otherwise provided for in this by-law shall be subject to the provisions of the Act.

REPEAL

21. By-law Nos. 2009-216 to 2009-228, inclusive, 2013-190, 2013-305 and any amendments thereto, are repealed as of the in force date of this by-law.

TERM OF BY-LAW

22. This by-law shall continue in full force and effect for a term of five (5) years from the date of its enactment, unless it is repealed at an earlier date.

NUMBER

23. In this by-law, a word interpreted in the singular number has a corresponding meaning when used in the plural.

HEADINGS FOR REFERENCE ONLY

24. The headings inserted in this by-law are for convenience of reference only and shall not affect the construction or interpretation of this by-law.

SEVERABILITY

25. It is the declared intention of the Council of the City that any section or part thereof or any Schedule of part thereof which may be held to be void or ineffective shall not be deemed to affect the validity of any other section or Schedules to this by-law.

ADDITIONAL DEVELOPMENT CHARGES

26. Additional development charges may be imposed pursuant to other by-laws.

SHORT TITLE

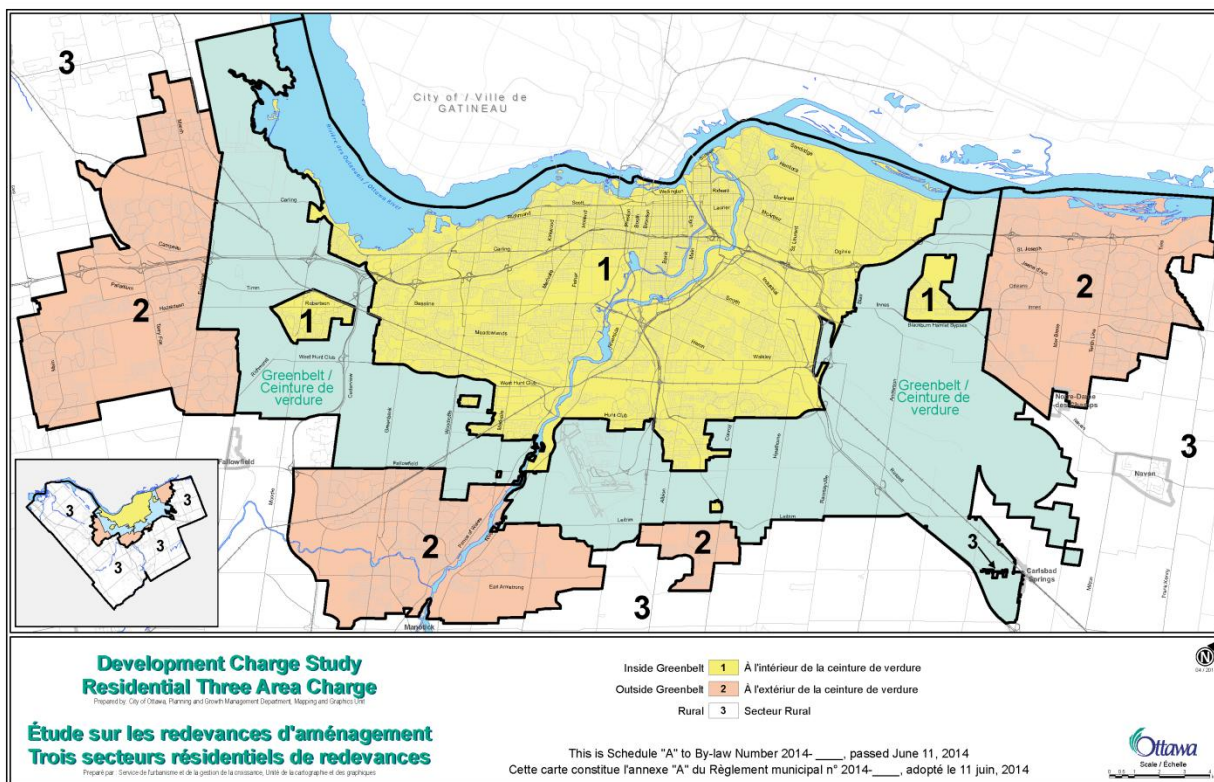
27. This by-law may be cited as the Development Charges By-law, 2014.

ENACTED AND PASSED this 11th day of June, 2014.

CITY CLERK

MAYOR

Schedule "A" – DESIGNATED AREAS OF THE CITY OF OTTAWA¹



SCHEDULE "B" - RESIDENTIAL DEVELOPMENT CHARGES
Inside the Greenbelt (Area # 1)
Development Charge per Dwelling Unit
Type of Residential Use

Effective June 12, 2014 - September 30, 2014

	Single and Semi-detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads & Related Services	5,707	3,361	2,475	4,470
Sanitary Sewer	2,982	1,756	1,293	2,336
Water	238	140	103	186
Stormwater Drainage	28	17	12	22
Protection	300	177	130	235
Public Transit	6,409	3,775	2,780	5,020
Parks Development (Non-District Parks)	172	101	75	135
Recreation Facilities	607	357	263	475
Libraries	320	189	139	251
Paramedic Service	60	35	26	47
Corporate Studies	68	40	30	53
Total Inside the Greenbelt	16,891	9,949	7,326	13,229

Effective October 1, 2014

	Single and Semi-detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads & Related Services	8,466	4,986	3,672	6,631
Sanitary Sewer	4,424	2,606	1,919	3,465
Water	353	208	153	276
Stormwater Drainage	42	25	18	33
Protection	445	262	193	349
Public Transit	6,409	3,775	2,780	5,020
Parks Development (Non-District Parks)	255	150	111	200
Recreation Facilities	900	530	390	705
Libraries	475	280	206	372
Paramedic Service	89	52	39	70
Corporate Studies	101	59	44	79
Total Inside the Greenbelt	21,959	12,934	9,524	17,198

SCHEDULE "B" - RESIDENTIAL DEVELOPMENT CHARGES
Outside the Greenbelt (Area #2)
Development Charge per Dwelling Unit
Type of Residential Use

Effective June 12, 2014 - September 30, 2014

	Single and Semi-detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads & Related Services	7,408	3,931	2,894	5,572
Sanitary Sewer	3,513	1,864	1,373	2,643
Water	2,146	1,139	838	1,614
Stormwater Drainage	30	16	12	22
Protection	675	358	264	508
Public Transit	6,409	3,401	2,504	4,821
Parks Development (Non-District Parks)	1,608	853	628	1,209
Parks Development (District Parks)	161	85	63	121
Recreation Facilities	2,750	1,459	1,074	2,068
Libraries	416	221	163	313
Paramedic Service	63	33	25	47
Corporate Studies	137	73	53	103
Total Outside the Greenbelt	25,315	13,432	9,891	19,042

Effective October 1, 2014

	Single and Semi-detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads & Related Services	10,459	5,550	4,086	7,867
Sanitary Sewer	4,960	2,632	1,938	3,731
Water	3,030	1,608	1,184	2,279
Stormwater Drainage	42	22	16	32
Protection	953	506	372	717
Public Transit	6,409	3,401	2,504	4,821
Parks Development (Non-District Parks)	0	0	0	0
Parks Development (District Parks)	227	120	89	171
Recreation Facilities	3,882	2,060	1,517	2,920
Libraries	588	312	230	442
Paramedic Service	89	47	35	67
Corporate Studies	193	102	75	145
Sub-Total Outside the Greenbelt	30,832	16,359	12,046	23,192

SCHEDULE "B" - RESIDENTIAL DEVELOPMENT CHARGES

Rural Serviced (Area # 3 Part)

Development Charge per Dwelling Unit

Type of Residential Use

Effective June 12, 2014 - September 30, 2014

	Single and Semi- detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads & Related Services	5,007	2,875	2,117	3,254
Sanitary Sewer	1,329	763	562	864
Water	102	58	43	66
Stormwater Drainage	25	14	10	16
Protection	379	218	160	246
Public Transit	6,409	3,679	2,709	4,165
Parks Development (Non-District Parks)	1,858	1,067	786	1,208
Recreation Facilities	316	181	133	205
Libraries	474	272	200	308
Paramedic Service	52	30	22	34
Corporate Studies	131	75	55	85
Total Rural Unserviced	16,082	9,233	6,798	10,450

Effective October 1, 2014

	Single and Semi- detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads & Related Services	8,507	4,884	3,596	5,528
Sanitary Sewer	2,258	1,296	954	1,467
Water	173	99	73	112
Stormwater Drainage	42	24	18	27
Protection	644	370	272	418
Public Transit	6,409	3,679	2,709	4,165
Parks Development (Non-District Parks)	0	0	0	0
Recreation Facilities	536	308	227	348
Libraries	805	462	340	523
Paramedic Service	89	51	38	58
Corporate Studies	222	127	94	144
Total Rural Unserviced	19,685	11,301	8,321	12,791

SCHEDULE "B" - RESIDENTIAL DEVELOPMENT CHARGES
Rural Unserviced (Area # 3 Part)
Development Charge per Dwelling Unit
Type of Residential Use

Effective June 12, 2014 - September 30, 2014

	Single and Semi-detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads & Related Services	5,007	2,875	2,117	3,254
Stormwater Drainage	25	14	10	16
Protection	379	218	160	246
Public Transit	6,409	3,679	2,709	4,165
Parks Development (Non-District Parks)	1,858	1,067	786	1,208
Recreation Facilities	316	181	133	205
Libraries	474	272	200	308
Paramedic Service	52	30	22	34
Corporate Studies	131	75	55	85
Total Rural Unserviced	14,651	8,411	6,193	9,520

Effective October 1, 2014

	Single and Semi-detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads & Related Services	8,507	4,884	3,596	5,528
Stormwater Drainage	42	24	18	27
Protection	644	370	272	418
Public Transit	6,409	3,679	2,709	4,165
Parks Development (Non-District Parks)	0	0	0	0
Recreation Facilities	536	308	227	348
Libraries	805	462	340	523
Paramedic Service	89	51	38	58
Corporate Studies	222	127	94	144
Total Rural Unserviced	17,254	9,906	7,293	11,212

SCHEDULE "C" - NON-RESIDENTIAL DEVELOPMENT CHARGES

City-Wide

Development Charge per Square Foot

of Gross or Total Floor Area by Type of Non-Residential Use

Effective June 12, 2014 - September 30, 2014

	Non-Residential General Use (\$ per sq.ft.)	Commercial Use, Institutional Use, Industrial Use (\$ per sq.ft.)	Industrial (Limited) Use (\$ per sq.ft.)
Roads & Related Services	8.03	5.58	3.71
Sanitary Sewer	1.54	1.07	0.79
Water	0.29	0.20	0.14
Stormwater Drainage	0.04	0.02	0.02
Protection	0.65	0.45	0.28
Public Transit	6.73	6.73	2.77
Parks Development (Non-District Parks)	0.13	0.09	0.15
Parks Development (District Parks)	0.01	0.01	0.01
Recreation Facilities	0.20	0.14	0.22
Libraries	0.05	0.03	0.05
Paramedic Service	0.08	0.05	0.03
Corporate Studies	0.14	0.10	0.06
Total	17.88	14.48	8.22

Effective October 1, 2014

	Non-Industrial Use (\$ per sq.ft.)	Industrial Use (\$ per sq.ft.)
Roads & Related Services	9.41	3.99
Sanitary Sewer	1.80	0.85
Water	0.34	0.15
Stormwater Drainage	0.04	0.02
Protection	0.76	0.30
Public Transit	6.73	2.77
Parks Development (Non-District Parks)	0.00	0.00
Parks Development (District Parks)	0.01	0.01
Recreation Facilities	0.24	0.24
Libraries	0.06	0.06
Paramedic Service	0.09	0.03
Corporate Studies	0.16	0.06
Total	19.64	8.47

SCHEDULE “D” – PAYMENTS FOR OVERSIZING

Benchmark Costs for Water Infrastructure, No contingency

Pipe Diameter		Pipe Cost	Total Cost (2013 \$)	Oversize Costs (>405mm dia.)
(in)	(mm)	(\$/m)	(\$/m)	(\$)
16	400	205.00	603.53	0
24	600	420.00	1021.53	417.99
30	750	500.00	1211.33	607.80
36	900	625.00	1499.24	895.70
42	1050	790.00	1836.19	1232.66
48	1200	1080.00	2384.27	1780.74

Benchmark Costs for Water Infrastructure, Contingency Included

Pipe Diameter		Pipe Cost	Total Cost (2013 \$)	Oversize Costs (>405mm dia.)
(in)	(mm)	(\$/m)	(\$/m)	(\$)
16	400	205.00	694.06	0
24	600	420.00	1174.76	480.69
30	750	500.00	1393.03	698.97
36	900	625.00	1724.12	1030.06
42	1050	790.00	2111.62	1417.56
48	1200	1080.00	2741.92	2047.85

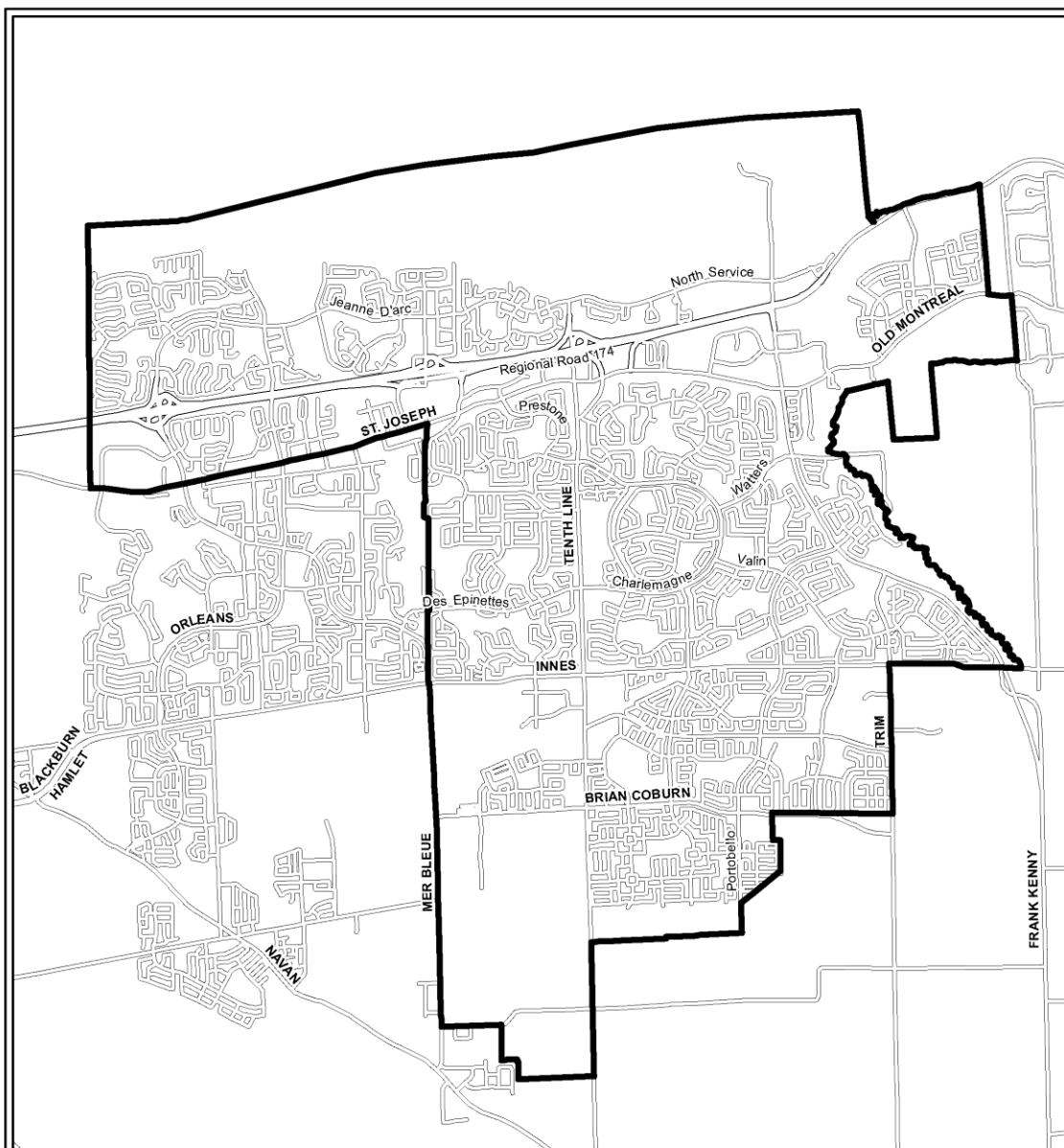
Benchmark Costs for Sanitary Infrastructure, Contingency Not Included

Pipe Diameter		Pipe Cost	Total Cost (2013 \$)	Oversize Costs (>375mm dia.)
(in)	(mm)	(\$/m)	(\$/m)	(\$)
15	375	83.80	377.56	0
18	450	86.40	407.59	30.03
21	525	94.20	457.15	79.59
24	600	135.40	553.03	175.47
27	675	207.60	701.80	324.24
30	750	273.70	855.10	477.54
33	825	317.50	987.41	609.85
36	900	380.90	1157.42	779.86
39	975	439.90	1351.91	974.35
42	1050	502.50	1550.42	1172.86
48	1200	630.10	1889.68	1512.12
54	1350	771.30	2186.03	1808.47
60	1500	943.10	2536.71	2159.15

Benchmark Costs for Sanitary Infrastructure, Contingency Included

Pipe Diameter		Pipe Cost	Total Cost (2013 \$)	Oversize Costs (>375mm dia.)
(in)	(mm)	(\$/m)	(\$/m)	(\$)
15	375	83.80	434.19	0
18	450	86.40	468.73	34.53
21	525	94.20	525.72	91.53
24	600	135.40	635.99	201.79
27	675	207.60	807.07	372.88
30	750	273.70	983.36	549.17
33	825	317.50	1135.52	701.32
36	900	380.90	1331.03	896.84
39	975	439.90	1554.70	1120.51
42	1050	502.50	1782.98	1348.79
48	1200	630.10	2173.13	1738.93
54	1350	771.30	2513.93	2079.74
60	1500	943.10	2917.22	2483.03


SCHEDULE "E" – MILLENNIUM PARK AREA



Ottawa
 Produced by Planning and Infrastructure Portfolio
 Produit par le Portefeuille urbanisme et infrastructure

	14-0821-X
I:\CO\2014\Development_Charges\Millennium_Park	
2014 / 04 / 22	
REVISION DATE	DE RÉVISION

Schedule "E" to By-law 2014-xxx

 **Millennium Park Area**




Échelle
 N.T.S.
 Mètres



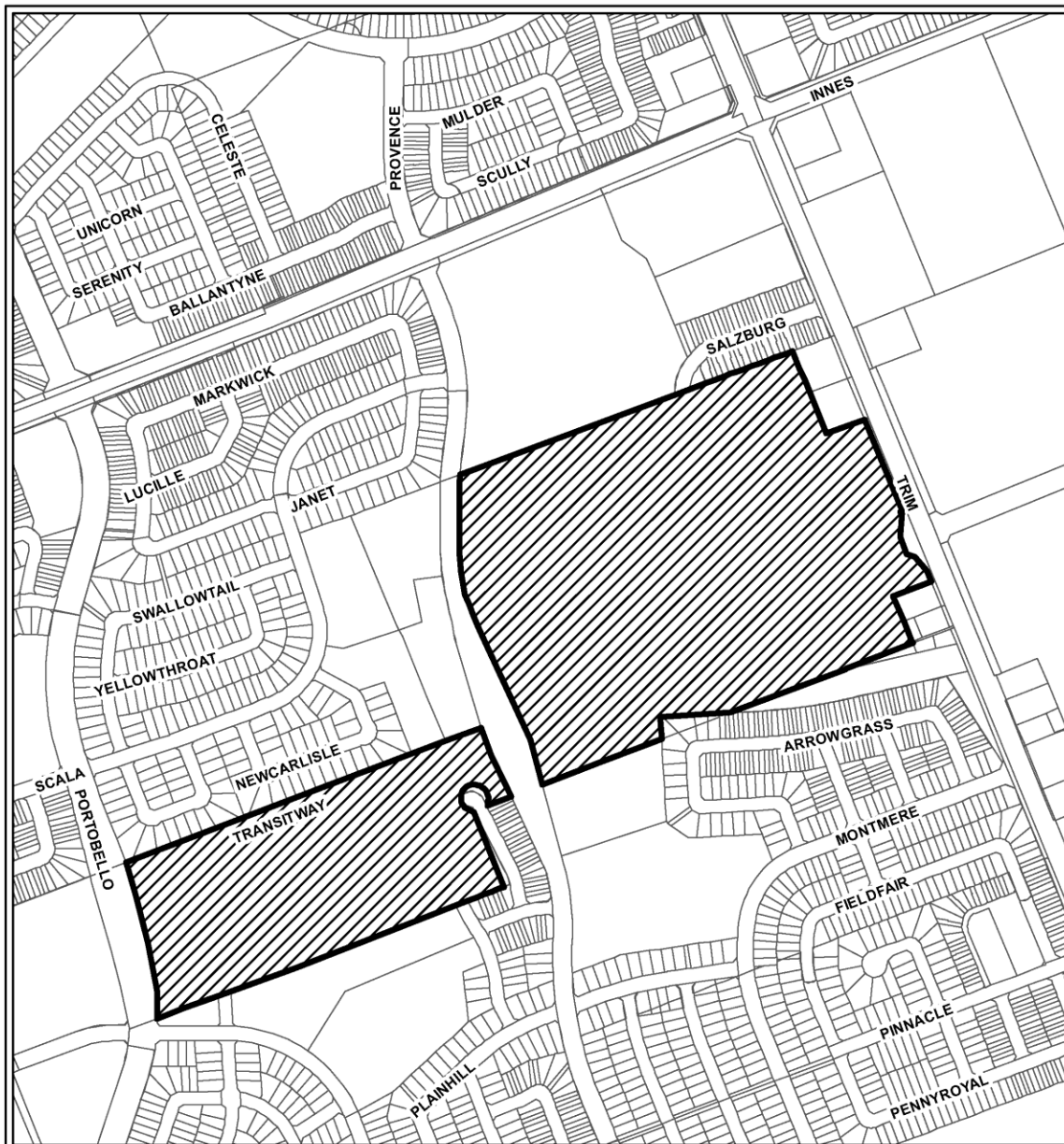
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

SCHEDULE "F" – FLAG STATION ROAD AREA



 <p>Produced by Planning and Infrastructure Portfolio Produit par le Portefeuille urbanisme et infrastructure</p> <p>14-0823-X</p> <p>I:\COI\2014\Development_Charges\Flag_Station_Road</p> <p>2014 / 04 / 22</p> <p>REVISION DATE DE RÉVISION</p>	<p>Schedule "F" to By-law 2014-xxx</p> <div style="text-align: center;">  <p>Affected Properties</p> </div> <p>Flag Station Road Area</p>	<p>Échelle N.T.S. Mètres</p>  <p>Scale N.T.S. Metres</p>
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

SCHEDULE "G" – PROVENCE AVENUE AREA



 <p>Produced by Planning and Infrastructure Portfolio Produit par le Portefeuille urbanisme et infrastructure</p> <p>14-0820-X</p> <p>\\COI\2014\Developmental_Charges\Provence_Avenue</p> <p>2014 / 04 / 22</p> <p>REVISION DATE DE RÉVISION</p>	<p>Schedule "G" to By-law 2014-xxx</p>  <p>Provence Avenue Area</p>	<p>Échelle N.T.S. Mètres</p>  <p>Scale N.T.S. Metres</p>
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SCHEDULE "H" – RICHMOND SANITARY SEWER SERVICE AREA



 <p>Produced by Planning and Infrastructure Portfolio Produit par le Portefeuille urbanisme et infrastructure</p> <p>14-0819-X</p> <p>I:\CO\2014\Development_Charges\Richmond_Sanitary_Sewer_Ser...</p> <p>2014 / 04 / 22</p> <p>REVISION DATE DE RÉVISION</p>	<p>Schedule "H" to By-law 2014-xxx</p> <div style="text-align: center;">  <p>Richmond Sanitary Sewer Service Area</p> </div>	<p>Échelle N.T.S. Mètres</p>  <p>Scale N.T.S. Metres</p>
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SCHEDULE "I" – MANOTICK WATER SUPPLY AND SANITARY SEWER AREA



 <p>Produced by Planning and Infrastructure Portfolio Produit par le Portefeuille urbanisme et infrastructure</p> <p>14-0822-X</p> <p>I:\COI\2014\Development_Charges\Manotick_Water_Supply_Ser...</p> <p>2014 / 04 / 22</p> <p>REVISION DATE DE RÉVISION</p>	<p>Schedule "I" to By-law 2014-xxx</p> <div style="display: flex; align-items: center; margin-top: 20px;"> <div style="border: 1px solid black; width: 30px; height: 15px; margin-right: 10px;"></div> <p>Manotick Water Supply Service Area</p> </div>	<p>Échelle N.T.S. Mètres</p>  <p>Scale N.T.S. Metres</p>
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SCHEDULE "J" – MILLENNIUM PARK DEVELOPMENT CHARGE

SCHEDULE "J" - RESIDENTIAL DEVELOPMENT CHARGES
 Millennium Park Area
 Development Charge per Dwelling Unit
 Type of Residential Use

	Single and Semi- detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Parks Development (District Parks)	555	294	217	417

SCHEDULE "K" – FLAG STATION ROAD DEVELOPMENT CHARGE

SCHEDULE "K" - RESIDENTIAL DEVELOPMENT CHARGES

Flag Station Road

Development Charge per Dwelling Unit

Type of Residential Use

	Single and Semi- detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads and Related	4,848	2,642	1,945	3,658

SCHEDULE "L" – PROVENCE AVENUE DEVELOPMENT CHARGE

SCHEDULE "L" - RESIDENTIAL DEVELOPMENT CHARGES

Provence Avenue

Development Charge per Dwelling Unit

Type of Residential Use

	Single and Semi- detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)
Roads and Related	1,757	957	705	1,326
Sanitary Sewer	799	435	320	603
Total	2,556	1,393	1,025	1,928

SCHEDULE "M" – RICHMOND SANITARY SEWER DEVELOPMENT CHARGE

SCHEDULE "M" - RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES

Richmond Sanitary Sewer Service Area

Development Charge per Dwelling Unit by Type of Residential Use

and per Square Foot of Gross or Total Floor Area by Type of Non-Residential Use

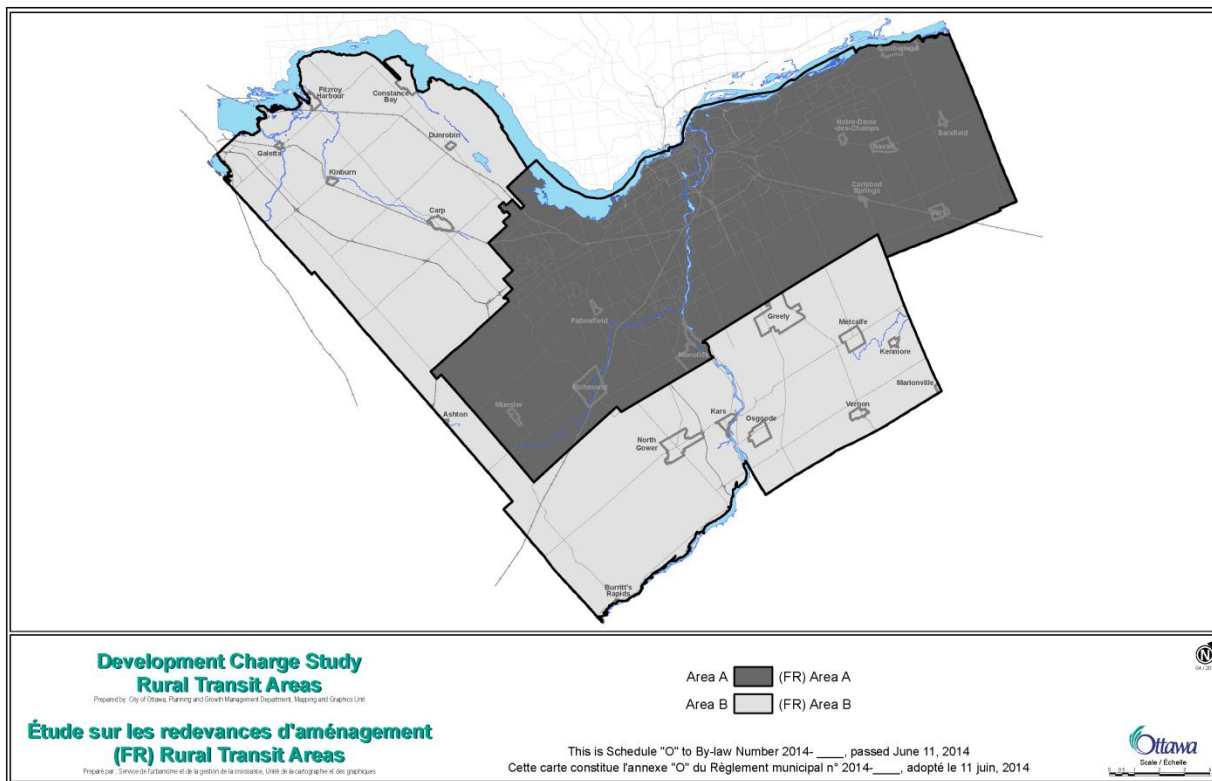
	RESIDENTIAL				NON-RESIDENTIAL	
	Single and Semi-detached (\$ per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (\$ per unit)	Apartment (less than 2 bedrooms) (\$ per unit)	Multiple, row and mobile dwelling (\$ per unit)	Non-Industrial Use (\$ per sq.ft.)	Industrial Use (\$ per sq.ft.)
Sanitary Sewer	14,657	8,415	6,196	9,524	20.12	-

SCHEDULE "N" – MANOTICK WATER SUPPLY AND SANITARY SEWER DEVELOPMENT CHARGE

SCHEDULE "N" - RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES
 Manotick Water Supply and Sanitary Sewer Service Area
 Development Charge per Dwelling Unit by Type of Residential Use
 and per Square Foot of Gross or Total Floor Area by Type of Non-Residential Use

	(\$ per Unit)				NON-RESIDENTIAL	
	Single and Semi-detached (per unit)	Apartment Dwelling and Back to Back and Stacked Townhouse (2+ bedrooms) (per unit)	Apartment (less than 2 bedrooms) (per unit)	Multiple, row and mobile dwelling (per unit)	Non-Industrial Use (\$ per sq.ft.)	Industrial Use (\$ per sq.ft.)
Sanitary Sewer	6,718	3,857	2,840	4,365	9.23	3.64
Water	3,477	1,996	1,470	2,259	4.78	1.88
Total - Manotick Service Area	10,195	5,853	4,309	6,625	14.01	5.52

SCHEDULE "O" – RURAL TRANSIT AREAS



BY-LAW NO. 2014-

-0-

A by-law of the City of Ottawa for the imposition of development charges.

-0-

Enacted by City Council at its meeting of June 11, 2014.

-0-

LEGAL SERVICES
TCM/

COUNCIL AUTHORITY:
City Council June 11, 2014
Council Agenda Item
PC Report , Item