
GENERAL AND TOWNSHIP ENGINEERING SERVICES

TECHNICAL APPENDIX

GENERAL AND ENGINEERING SERVICES TECHNICAL APPENDIX

INTRODUCTION AND OVERVIEW

The following appendix provides the detailed analysis undertaken to establish the development charge rates for each of the services in the Township of Uxbridge. Seven services have been analysed as part of the development charges study:

Appendix B.1	General Government
Appendix B.2	Library Services
Appendix B.3	Fire and Rescue
Appendix B.4	Animal Control
Appendix B.5	Parks and Recreation
Appendix B.6	Public Works
Appendix B.7	Township Engineering

Every service, with the exception of General Government, contains a set of three tables. The tables provide the background data and analysis undertaken to arrive at the calculated development charge rates for that particular service. An overview of the content and purpose of each of the tables is given below.

TABLE 1HISTORIC SERVICE LEVELS

Table 1 presents the data used to determine the ten-year historic service level. The *DCA* and *O*. *Reg.* 82/98 require that development charges be set at a level no higher than the average service level provided in the Township over the ten-year period immediately preceding the preparation of the background study, on a service-by-service basis. For the purpose of this study, the historic inventory period has been defined as 2004 to 2013.

O. Reg. 82/98 requires that when defining and determining historic service levels both the quantity and quality of service be taken into consideration. In most cases, the service levels are initially established in quantitative terms. For example, service levels for buildings are presented in terms of square feet. The qualitative aspect is introduced by considering the monetary value of the facility or service. In the case of buildings, for example, the cost would

be shown in terms of cost per square foot to replace or construct a facility of the same quality. This approach helps to ensure that the development-related capital facilities that are to be funded by new growth reflect not only the quantity (number and size) but also the quality (replacement value or cost) of service provided by the Township in the past. Both the quantitative and qualitative aspects of service levels used in the current analysis are based on information provided by municipal staff. This information is generally based on historical records and experience with costs to acquire or construct similar facilities, equipment and infrastructure.

The final page of Table 1 shows the calculation of the "maximum allowable" funding envelope, net of uncommitted excess capacity and the legislated ten per cent reduction (for all applicable services). The maximum allowable is defined as the ten-year historic service level (expressed as either \$/capita, \$/household or \$/population & employment) multiplied by the forecast increase in net population, households, or net population and employment growth, over the planning period. The resulting figure is the value of capital infrastructure that must be constructed for that particular service so that the ten-year historic service level is maintained.

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

TABLE 22014 – 2023 DEVELOPMENT-RELATED CAPITAL PROGRAM &
CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGE

The *DCA* requires that Council express its intent to provide future capital facilities to support future growth. Based on the development forecasts presented in Appendix A, Hemson Consulting in collaboration with Township staff has developed a development-related capital program which sets out the projects required to service anticipated growth for the ten-year period from 2014 to 2023.

To determine the share of the program that is eligible for recovery through development charges, the project costs are reduced by any anticipated grants, "replacement" shares and the legislated "ten per cent reduction" for any eligible services.

A replacement share occurs when a new facility will, at least in part, replace a facility that is demolished, redeployed or will otherwise not be available to serve its former function. The replacement share of the capital program is not deemed to be development-related and is therefore removed from the development charge calculation. The capital cost for replacement will require funding from non-development charge sources, typically property taxes or user fees.

When calculating development charges, the development-related net capital cost must be reduced by ten per cent for all services except protection services and engineered services ($DCA ext{ s.5.(1)8.}$). The ten per cent discount is therefore applied to all services considered in this appendix with the exception of Fire and Rescue and Township Engineering services. As with replacement shares, the ten per cent mandatory reduction must be funded from non-development charge sources.

The capital program less any replacement or benefit to existing shares and ten per cent discount yields the development related costs. Although deemed development-related, not all of the net development-related capital program may be recoverable from development charges in the period from 2014 to 2023. For some of the services, a portion of the capital program will service growth that will not occur until after 2023. This portion of the capital program is either deemed "pre-built" service capacity to be considered as committed excess capacity to be recovered under future development, or is a service level increase.

The remaining portion of the net capital program represents the development-related cost that may be included in the development charge. In all cases, as required, this amount is equal to or less than the maximum allowable capital amount as calculated on the final page of Table 1. The result is the discounted development-related net capital cost that is eligible for recovery against development over the period from 2014 to 2023.

Calculation of the Unadjusted Development Charge Rates

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

The first step when determining the unadjusted development charge rate is to allocate the development-related net capital cost between the residential and non-residential sectors. For all services with the exception of Library, Animal Control and Parks and Recreation, the development-related costs have been apportioned as 65 per cent residential and 35 per cent non-residential. This apportionment is based on the anticipated shares of population in new units and employment growth over the ten-year forecast period.

The development-related costs associated with Library Services, Animal Control, and Parks and Recreation have been allocated 100 per cent to the residential sector because the need for these services is generally driven by residential development.

The residential share of the 2014-2023 DC eligible costs are then divided by the forecast population growth in new units. This gives the unadjusted residential development charge per capita. The non-residential development-related net capital costs are divided by the forecast increase in non-residential gross floor area (GFA). This yields a charge per square metre of new non-residential GFA.

TABLE 3CASH FLOW ANALYSIS

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

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

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

GENERAL GOVERNMENT

GENERAL GOVERNMENT

The *DCA* allows the cost of development-related studies to be included in the calculation of the development charges as long as they are permitted under the legislation. Consistent with s.5(1)7 of the *DCA*, the eligible development-related capital costs for the provision of studies and permitted general government expenditures and are reduced by ten per cent when calculating the development charges.

TABLE 1 2014 – 2023 DEVELOPMENT-RELATED CAPITAL PROGRAM AND CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGES

As shown on Table 1, the 2014–2023 development-related gross cost for General Government is \$455,500. As required under the DCA, development charges studies must be undertaken every five years, thus three studies are included in the capital program. Similarly, there is a provision for three regular Zoning By-law reviews and two Official Plan reviews. The capital plan also includes a Municipal Comprehensive Review, a review of the Oak Ridge's Moraine Conservation Plan, Regional Servicing Review, as well as several Community Improvement Plans and Secondary Plans.

Recognizing that not all studies under this service are entirely a result of new growth in the Township, a "benefit to existing" share has been netted off the total costs. The benefit to existing shares amount to \$164,000, which will not be recovered through development charges. The legislated ten per cent reduction, \$29,150 is also discounted from the capital costs. The remaining DC eligible share totals \$262,350.

An amount of \$319,919 is available in the General Government DC reserves, of which \$262,350 are used to fund the remaining development-related costs. As a result, there are no remaining funds to be brought forward to the development charges calculation, and the resulting unadjusted charge for general government is \$0 per capita and \$0 per square metre.

TABLE 3CASH FLOW ANALYSIS

As there are no funds brought forward to the development charges calculation for General Government, the adjusted development charge remains at \$0 per capita and \$0 per square foot of non-residential development.

The following table summarizes the calculation of the General Government development charge.

G EN ERAL GO VERNM EN T						
10-yearHist. 2014-2023 Unadjusted Adjusted						
Service Level	Grow th-Rela	ated Capital Program	DevelopmentCharge		DevelopmentCharge	
\$0.00	Total	NetDC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m
n/a	\$455 ,500	\$0	\$0.00	\$0.00	\$0.00	\$0.00

LIBRARY SERVICES

LIBRARY SERVICES

The Township of Uxbridge provides Library Services through two branches – Uxbridge Public Library and Zephyr Public Library. The libraries offer a wide array of adult and children's services, library programs and room rentals. Both branches have a variety of collection materials available for the community's use.

TABLE 12004-2013 HISTORIC SERVICE LEVELS

Table 1 displays the Library's ten-year historic inventory for buildings, land, materials, and furniture and equipment (excluding computer equipment). The building space amounts to 12,700 square feet which is valued at \$3.79 million. The library buildings occupy approximately 0.94 hectares of land worth \$705,000. The collection materials are valued at \$2.41 million and furniture and equipment associated with the branch is valued at \$750,800.

The 2013 full replacement value of the inventory of capital assets amounts to \$7.66 million and the ten-year historic average service level is \$389.57 per capita.

The historic service level multiplied by the ten-year forecast of net population growth results in a ten-year maximum allowable funding envelope of \$607,386 (1,559 net population growth X historic service level of \$389.57/capita). No uncommitted excess capacity has been identified for this service.

Library services must be reduced by ten per cent as required under the *DCA*. The resulting net maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$546,648.

TABLE 22014 – 2023 DEVELOPMENT-RELATED CAPITAL PROGRAM &
CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGE

The Library capital program provides for a reconfiguration of the existing library branch in 2014 and 2015 for a total cost of \$380,000. The Library capital program also provides for additional collection materials over the course of the ten year forecast period in order to maintain the historic service level for Uxbridge's growing population.

The total gross cost of the Library DC capital program is \$506,000. No grants, subsidies, or other recoveries are anticipated to fund any shares of the above mentioned projects and as such, the net cost to the municipality remains at \$506,000. A 50 per cent share of the library reconfiguration project is identified as a replacement share providing benefit to the existing

population, and therefore, \$190,000 is deducted from the program. As required by the *DCA*, a ten per cent reduction has been applied to the new projects, and these shares amount to \$31,600. The remaining DC eligible share totals \$284,400.

An amount of \$792,528 is available in the Library DC reserves, of which \$284,400 are used to fund the remaining DC eligible shares of the capital program. As a result, there are no shares remaining to be brought forward to the development charges calculation, and the resulting unadjusted residential charge for library services is \$0 per capita.

TABLE 3CASH FLOW AND RESERVE FUND ANALYSIS

As there are no funds brought forward to the development charges calculation for Library Services, the adjusted development charge remains at \$0 per capita for new residential development.

The following table summarizes the calculation of the Library Services development charge.

LIBRARY SERVICES							
10-yearHist.	2	2014-2023	Unad	justed	Adju	isted	
Service Level	Growth-Rela	Grow th-Related Capital Program		DevelopmentCharge		DevelopmentCharge	
\$0.00	Total	NetDC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m	
\$389.57	\$506 ,000	\$0	\$0.00	\$0.00	\$0.00	\$0.00	

FIRE AND RESCUE

FIRE AND RESCUE

The Uxbridge Fire Department currently operates one station in providing fire services to the Township. The Department is responsible for fire prevention, inspections, public education and training as well as fire suppression.

TABLE 12004-2013 HISTORIC SERVICE LEVELS

The Township of Uxbridge Fire department operates from one station located on Bascom Street. The total area of the station is 8,460 square feet and is valued at \$2.54 million. The land area associated with the buildings is approximately 0.10 hectares and is valued at \$75,000. The seven vehicles associated with the station have a replacement value of \$2.52 million. Finally, personal firefighting equipment, communications equipment, and other station equipment add another \$1.16 million to value of the inventory.

The current replacement value of the Fire and Rescue capital infrastructure is \$6.30 million. It has provided the Township with a ten-year average service level of \$873.56 per household. The calculated maximum allowable recoverable through development charges over the 2014 to 2023 planning period is \$766,112 (877 household growth X historic service level of \$873.56/household). No uncommitted excess capacity has been identified for this service; therefore, the full funding envelope is brought forward to the development charges calculation.

TABLE 22014 – 2023 DEVELOPMENT-RELATED CAPITAL PROGRAM &
CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGE

The Fire and Rescue capital program recovers for the construction of a new fire station in 2014 and 2015 at a cost of \$5.20 million (including land acquisition) as well as a new tanker for a cost of \$550,000.

In summary, the ten-year capital program for Fire and Rescue amounts to \$5.75 million. No upper level grants or subsidies are expected to offset the cost of the capital program. Recognizing that the new fire station will result in the current space utilized at the station on Bascom Street be closed, a replacement share equivalent to the value of the current station plus the sale of land associated with the station has been netted off the total net costs. The replacement share amounts to \$2.51 million and this amount will not be recovered through development charges. A share in the amount of \$1.73 million is deemed to be of post-period benefit and it will be examined for recovery in the next DC By-law update, subject to service level restrictions. A portion of these projects (\$742,204) will be funded through the

Township's Fire and Rescue DC reserve fund. Given that protection services are exempt from the ten per cent reduction of capital costs imposed by the DCA, no deduction is made.

The remaining \$766,112 is will be funded through development charges over the period 2014-2023 and has been included in the DC rate calculations. The ten-year development-related net capital cost is allocated 65 per cent, or \$498,000, against residential development, and 35 per cent, or \$268,100, against non-residential development. The allocation between residential and non-residential development is based on shares of ten-year growth in population in new units and employment. The resulting unadjusted development charge is \$227.99 per capita and \$3.20 per square metre.

TABLE 3CASH FLOW ANALYSIS

After cash flow consideration, the residential charge increases to \$270.00 per capita and the non-residential charge increases to \$3.90 per square metre. The increase reflects the front-ended nature of the capital program.

The following table summarizes the calculation of the Fire and Rescue development charge.

FIRE & RESCUE							
10-yearHist.	2	014-2023	U nad	justed	Adju	sted	
Service Level	Growth-Rela	Grow th-Related Capital Program		DevelopmentCharge		DevelopmentCharge	
perhousehold	Total	NetDC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m	
\$873.56	\$5,750,000	\$766,112	\$227 . 99	\$3.20	\$270.00	\$3.90	

ANIMAL CONTROL

ANIMAL CONTROL

The Township of Uxbridge and the Township of Scugog provide shared Animal Control services for both municipalities. The funding of this service is split evenly between the Townships.

TABLE 12004-2013 HISTORIC SERVICE LEVELS

The Animal Control service operates out of one 1,700 square foot facility with a total replacement cost of \$449,000. Land for the facility totals 0.12 hectares with a value of \$90,000. The replacement cost of eligible vehicles is \$49,400 and equipment adds another \$29,100 to the inventory. After deducting Scugog's share of the inventory, Uxbridge's share of the total replacement cost of the 2013 inventory of capital assets is \$308,700. Uxbridge's share of the average historic service level over ten years is \$14.88 per capita. The historic service level, multiplied by the forecast ten-year net population growth results in a ten-year maximum allowable charge of \$23,200. After deducting the legislated ten per cent, the discounted maximum allowable funding envelope brought forward to the development charges calculation is \$20,880.

TABLE 2 2014 – 2023 DEVELOPMENT-RELATED CAPITAL PROGRAM AND CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGES

The 2014-2023 growth-related capital program from Animal Control provides for the construction of a new animal shelter.

The ten-year capital program totals \$1.47 million. \$935,000 is anticipated in fundraising efforts and has been deducted from the gross total. The remaining \$535,000 remains as the net municipal cost. Recognizing that the animal shelter will result in the current space utilized at the existing shelter be closed, a replacement share in the amount of about \$197,717 has been netted off the total net costs. The legislated ten per cent discount of \$33,728 has also been removed. A share in the amount of \$245,300 is deemed to be of post-period benefit and it will be examined for recovery in the next DC By-law update, subject to service level restrictions. A portion of these projects (\$37,374) will be funded through the Township's Animal Control DC reserve fund.

The remaining \$20,880 is will be funded through development charges over the period 2014-2023 and has been included in the DC rate calculations. The ten-year development-related net

capital cost is allocated entirely against residential development. The resulting unadjusted development charge is \$9.56 per capita.

TABLE 3CASH FLOW ANALYSIS

After cash flow analysis, the residential charge increases to \$11.00 per capita.

The following table summarizes the calculation of the animal control development charge.

AN IM AL CON TROL						
10-yearH ist.	2	014-2023	U nad	justed	Adj	isted
Service Level	Grow th-Related Capital Program		DevelopmentCharge		DevelopmentCharge	
percapita	Total	NetDC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m
\$14.88	\$1,470,000	\$20,880	\$9.56	\$0.00	\$11.00	\$0.00

PARKS AND RECREATION

PARKS AND RECREATION

Indoor recreation and parkland facilities are provided through the Parks, Recreation and Culture Department of the Township of Uxbridge. The major facilities include the Uxbridge Arena, the Uxpool, and the Music Hall on Main Street. The Township provides about 193 hectares of developed parkland space, which include a variety of park facilities, trails and outdoor buildings.

TABLE 12004-2013 HISTORIC SERVICE LEVELS

The ten-year historic inventory of capital assets for Parks and Recreation includes about 125,800 square feet of indoor recreation building space accommodated within ten facilities. The largest of these facilities is the Uxbridge Arena. The current replacement value for the buildings is \$28.94 million. The land associated with the buildings amount to 4.34 hectares, and is valued at \$3.26 million. The furniture and equipment found in the facilities has a total value of \$1.73 million.

Of the 193 hectares of developed parkland offered by the Township of Uxbridge, 93.49 hectares is designated as community parks, 38.38 as neighborhood parks and 61.62 hectares as passive parks. There are also 40 kilometres of developed trails. The total value of developed parkland in the Township amounts to \$10.48 million.

The department is also responsible for the construction and operation of park facilities including soccer fields, baseball diamonds, tennis courts, beach volleyball courts and numerous playgrounds, among others. The facilities have a total value of \$4.22 million. The value of outdoor buildings and equipment add a further \$1.29 million to the Parks and Recreation inventory.

The combined value of capital assets for Parks and Recreation Services totals \$49.90 million. The ten-year historic average service level is \$2,399.97 per capita, and this, multiplied by the ten-year forecast growth in net population, results in a ten-year maximum allowable funding envelope of \$3.74 million (1,559 net population growth X historic service level of \$2,399.97/capita). No excess capacity has been identified for this service.

Parks and Recreation must be reduced by ten per cent as required under the *DCA*. The resulting net maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$3.37 million.

TABLE 22014 – 2023 DEVELOPMENT-RELATED CAPITAL PROGRAM &
CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGE

The 2014-2023 development-related capital program for Parks and Recreation amounts to \$16.93 million. It includes a new swimming pool, Fields of Uxbridge changes, new parkland and trail development, and a Parks and Recreation Master Plan in 2017.

The gross project cost of the Parks and Recreation capital program is \$16.93 million. Of this amount, \$6.66 million is identified as a grant to be put towards the pool project anticipated to begin in 2016. It should be noted that a portion of the grant funding anticipated is considered to be the replacement component of the existing pool. A "replacement" share representing 50 per cent of the total value of the Parks and Recreation Master Plan has been netted off the total net costs. The replacement share amounts to \$62,500 and this amount will not be recovered through development charges. As required by the *DCA*, a ten per cent reduction has been applied to all projects, and this share amounts to \$1.02 million. Additionally, a portion of this capital program, \$1.20 million, is deemed to be a post-period benefit, and will be considered for recovery in subsequent development charges by-laws. Available reserve funds in the amount of \$4.61 million will be used to fund the remaining costs eligible for DC funding.

The 2014-2023 DC costs eligible for recovery amount to \$3.37 million, which is allocated entirely against future residential development in the Township of Uxbridge. This results in an unadjusted development charge of \$1,541.87 per capita.

TABLE 3CASH FLOW AND RESERVE FUND ANALYSIS

After cash flow consideration, the residential calculated charge increases to \$1,592.00 per capita. The following table summarizes the calculation of the Parks and Recreation development charge:

PARKS & RECREATION						
10-yearH ist.	2	014-2023	U nad	justed	Adju	sted
Service Level	Grow th-Related Capital Program		DevelopmentCharge		DevelopmentCharge	
percapita	Total	NetDC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sqm
\$2,399.97	\$16 ,925 ,000	\$3,367,657	\$1,541.87	\$0.00	\$1,592.00	\$0.00

PUBLIC WORKS

PUBLIC WORKS

The Public Works department is responsible for the maintenance of all roads, sidewalks, streetlights, culverts and curbs within the Township boundaries. The capital costs associated with Public Works functions are accounted for in this section. Information regarding roads, storm and related infrastructure can be found in Appendix B.7.

TABLE 12004-2013 HISTORIC SERVICE LEVELS

The ten-year historic inventory of capital assets for Public Works includes 27,000 square feet of building space with a replacement value of \$3.44 million. The 4.06 hectares of land associated with the Public Works buildings are valued at \$3.04 million, furniture and equipment amounts to \$300,800, and the public works fleet adds an additional \$6.85 million to the value of the capital assets.

The total value of the Public Works capital infrastructure is estimated to be \$13.64 million. The ten-year historic average service level is \$493.03 per capita and employee and this, multiplied by the ten-year forecast net population and employment growth (2,732), results in a ten-year maximum allowable funding envelope of \$1.35 million. There is no uncommitted capacity available for Public Works. Ten per cent has been deducted from this amount. As such, the resulting net maximum allowable funding envelope brought forward to the development charges calculation is \$1.21 million.

TABLE 2 2014 – 2024 DEVELOPMENT-RELATED CAPITAL PROGRAM AND CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGES

The total 2014–2023 development-related capital program for the Public Works department amounts to \$145,000. The program provides for a shed expansion in 2015 for \$100,000 and a 750 square foot expansion to the Storage Building in 2023 for a cost of \$45,000.

Of this total cost, no grants, subsidies or replacement shares are identified. Ten per cent reduction shares amount to \$14,500 and have been netted off the total. An amount of \$441,711 is available in the Public Works DC reserve fund, \$130,500 of which is used to fund the remaining DC eligible shares of the capital program. Therefore, there are no shares brought forward to the development charges calculation, resulting in an unadjusted residential charge of \$0 per capita and \$0 per square metre of non-residential development.

TABLE 3CASH FLOW ANALYSIS

As there are no funds brought forward to the development charges calculation for Public Works, the adjusted residential development charge remains at \$0 per capita and \$0 for new non-residential development.

The following table summarizes the calculation of the Public Works development charge.

PUBLIC W ORKS						
10-yearHist.	2	2014-2023	U nad	justed	Adj	usted
Service Level	Grow th-Related Capital Program		DevelopmentCharge		DevelopmentCharge	
perpop+empl	Total	NetDC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m
\$493.03	\$145,000	\$0	\$0.00	\$0.00	\$0.00	\$0.00

TOWNSHIP ENGINEERING

TOWNSHIP ENGINEERING

The Engineering Department is responsible for the design and construction of the Township's network of public roads and related infrastructure. This appendix provides an overview of the Township's roads, storm and related services included in the development charges calculation.

The Township of Uxbridge's engineered services are planned for the period from 2014 to 2023, consistent with the General Services planning period, and also the Township's budgeting practices. This appendix provides a review of the 2014-2023 development-related capital forecast and the calculation of the development charges for Township engineering services. Consistent with s. 5. (1) 7 of the DCA, there is no legislated percentage reduction in the eligible development-related capital costs for the provision of these Township-wide hard services.

The cost, quantum and timing of the projects identified in the forecast have been provided by the Engineering department based on estimates prepared by Township staff.

TABLE 12004-2013 HISTORIC SERVICE LEVELS

Table 1 demonstrates that the Township's current road infrastructure comprises 77 kilometers of gravel road and 247 kilometers of paved roadways. The total inventory of capital assets has a full replacement value of \$313.13 million. This produces a ten-year historical service level of \$11,322.32 per capital and employment. The resulting maximum allowable funding envelopment is \$30.93 million (\$11,322.32 x 2,732 net population and employment growth over the ten-year planning horizon).

TABLE 22014 – 2023 DEVELOPMENT-RELATED CAPITAL PROGRAM AND
CALCULATION OF THE UNADJUSTED DEVELOPMENT
CHARGES

The total 2014–2023 development-related capital program for Township Engineering amounts to \$17.54 million.

The capital program is comprised of \$10.67 million in culverts, \$4.72 million in paved road construction, and \$1.5 million in gravel road construction. Sidewalk projects total \$385,000 and streetlight projects add another \$268,400 to the capital program.

The Township anticipates grant funding in the amount of \$2.50 million to offset the cost of the Downtown Flood Reduction work on Brock Street. A replacement or benefit-to-existing share in the amount of \$5.76 million is removed from the total value of the capital program.

- The "Benefit to Existing" share for Brock Street Culvert work is based on shares of existing and future household growth to 2031.
- The "Benefit to Existing" shares for other projects reflect the service level improvement to the facility. For example, for road projects it represents the resurfacing cost of the road segment. This is consistent with the Township's previous Development Charges Background Study.

Available monies in the Township Engineering reserve fund total \$1.36 million, which will be used to fund a portion of the DC eligible share of the capital program. \$9.28 million is identified as a post-period benefit share, which will be eligible for funding in subsequent development charges studies. The post period share for the Brock street culvert is based on a 2031 benefiting period.

The remaining share of the capital program, \$2.44 million is identified as eligible for development charges funding and is brought forward to the calculation. The amount is allocated 65%, or \$3.56 million against new residential development and 35%, or \$1.92 million against non-residential development. This yields an unadjusted development charge of \$1,629.77 per capita and \$22.90 per square metre of non-residential development.

TABLE 3CASH FLOW ANALYSIS

After cash flow and reserve fund analysis, the residential calculated charge slightly decreases to \$1,617.00 per capita and the non-residential charge increases to \$23.14 per square metre. This is a reflection of the timing of the capital program and development charges revenues.

TOWN SHIPENGINEERING							
20	014-2023	Unadjus	ted	Adju	sted		
Grow th-Rela	ted Capital Program	Developm ent	Charge	Developm e	entCharge		
Total	NetDC Recoverable	\$/capita	\$/sq m	\$/capita	\$/sq.m		
\$17,543,400	\$5,476,394	\$1,629.77	\$22.90	\$1,617	\$23.14		

The following table summarizes the calculation of the Township Engineering charge.