



 **Watson**  
& Associates  
ECONOMISTS LTD.

# Addendum to the 2023 Development Charge Background Study

## Town of Whitchurch-Stouffville

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**November 27, 2023**

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# List of Acronyms and Abbreviations

<b>Acronym</b>	<b>Full Description of Acronym</b>
D.C.	Development Charge
D.C.A.	Development Charges Act
L.S.P.	Local Service Policy
sq.ft.	Square Foot



# Addendum Report to the 2023 Development Charge Background Study



# Chapter 1

## Background



# 1. Background

The Town of Whitchurch-Stouffville (Town) released the 2023 Development Charge (D.C.) Background Study on September 28, 2023 in accordance with the *Development Charges Act, 1997* (D.C.A.). The following provides key dates for the Town's D.C. by-law process:

- September 8, 2023 and September 20, 2023 – Focus Group Meetings with Key Stakeholders;
- September 28, 2023 - Release of the 2023 D.C. Background Study and draft by-laws to the public;
- October 4, 2023 – Presentation of the 2023 D.C. Background Study to Council;
- November 8, 2023 - Public Meeting of Council;
- November 16, 2023 - Focus Group Meeting with Key Stakeholders;
- November 27, 2023 - Addendum to the 2023 D.C. Background Study;
- December 6, 2023 - Passage of D.C. by-laws; and
- Notice of Passage of D.C. by-laws, at least 20 days after passage.

Through ongoing discussion with external stakeholders in the development industry, Town staff, and the Town's external engineers (HDR Inc. and GM BluePlan, that are currently undertaking the Town's Transportation Master Plan and Water & Wastewater Master Plan, respectfully) a number of refinements to the Town's 2023 D.C. Background Study. These refinements have resulted in changes to the calculated D.C. rates. The following briefly identifies the refinements made to the 2023 D.C. Background Study included in this addendum report:

- The Local Service Policy (L.S.P.) has been refined for water and wastewater services to provide additional clarity on the capital infrastructure that would be D.C. eligible or the direct responsibility of the developing landowners;
- Fire Protection Services:
  - Refinement to the replacement value included in the historic level of service calculations for fire equipment and gear; and
  - Refinement to the capital program to ensure the increase in need for service is within the historical level of service limit, accounting for the population incline within existing dwelling units.
- Library Services

- Refinement to the capital program to ensure the increase in need for service is within the historical level of service limit, accounting for the population incline within existing dwelling units.
- Services Related to a Highway
  - Refinement to the gross capital cost estimates provided by HDR Inc. (HDR) in the revised draft Transportation Master Plan (TMP) capital program; and
  - Refinement to the capital program to ensure the increase in need for service is within the historical level of service limit, accounting for the population incline within existing dwelling units.
- Parks and Recreation Services
  - Refinement to the historic level of service calculations for recreation facilities;
  - Removal of trail capital projects from the capital program; and
  - Refinement to the capital program to ensure the increase in need for service is within the historical level of service limit, accounting for the population incline within existing dwelling units.
- Wastewater Services
  - Refinements to the D.C. Criteria as per the revised draft Water and Wastewater Master Plan for 4 capital projects; including the portion of the costs that benefit the 2051 forecast and the portion that will benefit growth in the post 2051 period.

The following sections of this addendum report present the impacts of these refinements on the calculated D.C.s for a single-detached residential unit, and per square foot (sq.ft.) of gross floor area (GFA) for non-residential development. Further, the amended pages of the 2023 D.C. Background Study, and the revised D.C. schedule of charges, have been included in this report.



# Chapter 2

## Discussion





## 2. Discussion

This section of the addendum report provides additional details of the above-noted refinements to the Town's 2023 D.C. Background Study.

### 2.1 Refinements to the “Local Service Policy”

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Refinements to the L.S.P., as contained Appendix E of the 2023 D.C. Background Study, are provided. These refinements relate to water and wastewater services and have been made to provide greater clarity and transparency of capital works to be considered for inclusion in the D.C. calculations and those that are a direct developer responsibility. Note, in addition to the policy changes the numbering of the wastewater section has updated to Section 12 from Section 13 in the 2023 D.C. Background Study. As a result, the numbering for sections that follow within the policy, i.e., recreational trails, parkland, and open space, have been renumbered accordingly.

#### Water Services

Section 11 of the L.S.P. outlines which growth-related capital projects for water services are funded through the D.C. and which are a direct developer responsibility. Subsections 11.1 through 11.5 provide additional categorization of types of water infrastructure.

Subsection 11.2 of L.S.P. within the 2023 D.C. Background Study provides the following:

“Watermains external to subdivisions, projects required for intensification growth and strategic projects that benefit growth of subdivisions are included in the D.C.”

For additional clarity, examples of strategic projects have been included in the policy and the subsection has been revised as follows:

“Watermains external to the subdivision, which are required for intensification growth or are strategic projects that benefit the growth of subdivisions, are included in the D.C. Strategic projects that benefit the growth of subdivisions may include, but is not limited to:

- Watermains that help provide the necessary resiliency to support water servicing (looping, etc.);
- Watermains that support intensification needs across the wider service area (increased fire flow needs; etc.); and,
- Watermains that reduce/limit headloss and watermain velocity to enable further growth.”

Subsection 11.3 of the L.S.P. within the 2023 D.C. Background Study provides the following:

“Marginal costs of waterworks within the subdivision included in D.C. above 300 mm nominal diameter are included in the D.C.”

This policy has been refined as follows to provide more clarity to this criterion:

“Marginal cost of waterworks within subdivision, which meet all of the following criteria are included in the D.C.:

- Provide benefit to the wider water system, including upstream/downstream developers;
- Exceed 300 mm nominal diameter;
- Exceed the local watermain size that would otherwise be required to solely service the local subdivision.”

### Wastewater Services

Section 13 (renumbered to Section 12) of the L.S.P. outlines which growth-related capital projects for wastewater services are funded through the D.C. and which are a direct developer responsibility. Subsections 12.1 through 12.5 provide additional categorization of types of wastewater infrastructure.

Subsection 12.2 of L.S.P. within the 2023 D.C. Background Study provides the following:

“Sewers external to subdivisions, projects required for intensification growth and strategic projects that benefit the growth of subdivisions are included in the D.C.”

To provide greater clarity and transparency related to the “strategic projects” mentioned above, subsection 12.2 of the L.S.P. has been updated as follows:

“Sewers external to subdivision, which are required for intensification growth or are strategic projects that benefit the growth of subdivisions, are included in the D.C. Strategic projects that benefit the growth of subdivisions may include, but is not limited to:

- Sewers sized and installed at depths to capture flows from future upstream development;
- Sewer upgrades that support intensifications needs; and,
- Complex sewer works (trenchless under watercourses, etc.) required to support the extension of the collection system to enable further growth.”

Subsection 12.4 of the L.S.P. within the 2023 D.C. Background Study provides the following:

“Marginal costs of sanitary sewer works within the subdivision, above 375mm nominal diameter and depth of 5 meters or greater, which benefits upstream developers are included in the D.C.”

This policy has been refined as follows to provide more clarity to these criteria:

“Marginal costs of sanitary sewer works within the subdivision which meet all of the following criteria are included in the D.C.:

- Provide benefit to upstream developers;
- Exceed 375mm nominal diameter and depth of 5 meters; and
- Exceed the local sewer size and depth required to service the local subdivision.”

## **2.2 Refinements Related to the Anticipated Increase in Population within Existing Dwelling Units**

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Historically, the Town has generally experienced a decrease in population within existing residential dwelling units over the forecast period. This is referred to as a population decline. This is most often a result of natural causes such as mortality, young adults moving out and re-locating to other units, etc. However, the growth forecast for the Town’s 2023 D.C. Background Study anticipates an increase in the population housed within existing residential dwelling units. This is referred to as a population incline. This trend has been witnessed in various municipalities throughout

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Ontario and is attributable to a number of factors, such as an increase in multi-general households due to an aging population, immigration, and housing affordability.

As the Town grows, the additional population housed in existing dwelling units will require services to be provided. As the D.C. applies to growth-related demands for service in new dwelling units, the services required for the population incline will have to be funded from other Town sources (i.e., property taxes, user rates, etc.). As such, the growth-related capital infrastructure identified in the D.C. must be adjusted (i.e., reduced) to allocate a proportionate share of the costs to the anticipated population incline. This adjustment was provided in the 2023 D.C. Background Study.

The D.C.A. stipulates that the increase in need for services attributable to development cannot exceed the 15-year average historic level of service provided in the municipality. This historic level of service calculation results in a maximum D.C. recoverable cost that the increase in need for service must be measured against for each service. As noted above, the 2023 D.C. Background Study provided an adjustment to capital needs for each service related to the population incline, however, the resultant increase in need for service was assessed against the historic level of service after the population incline adjustment. This assessment should have been made prior to population incline adjustment. As such the assessment of the historic level of service has been refined for Fire Protection Services, Library Services, Services Related to a Highway, and Parks & Recreation Services. These refinements have decreased the amount of capital costs included in the D.C. calculation. The impacts of these refinements are further detailed in the following sections of this report for each service.

## **2.3 Refinements to Fire Protection Services**

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A refinement required to the historic level of service calculation for Fire Protection Services, specifically related to the small equipment and gear inventory, has been made to correct for a calculation error. As a result, the maximum D.C. recoverable capital costs for this service have increased by approximately \$22,000, to an overall maximum ceiling of \$42.73 million for Fire Protection Services.

Applying the adjustment for the population incline, as discussed in section 2.2 above, the capital costs attributable to the increase in need for service of development in the 2023 D.C. Background Study are in excess of the historic level of service. Therefore, a deduction has been applied to the Station 55 Ringwood project for approximately \$2.06 million to ensure compliance. This revision reduces the D.C. per single detached

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residential dwelling unit by \$112 (from \$2,290 to \$2,178 for Fire Protection Services) and a decrease the D.C. per sq.ft. of GFA for non-residential development by \$0.09 (from \$1.87 to \$1.78 for Fire Protection Services).

## 2.4 Refinements to Library Services

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Deductions have been made in the D.C. calculation for Library Services for the following Highway 48 Corridor Branch projects. These deductions are provided to ensure that the increase in need for Library Services is within the historic level of service, accounting for the population incline adjustment as discussed in section 2.2 herein. Deductions include:

- Approximately \$11.84 million against the Hwy 48 Corridor Branch (New) project;
- Approximately \$3.80 million against the Hwy 48 Corridor Branch – Furniture and Equipment project;
- \$183,700 against the Hwy 48 Corridor Branch – Technology project;
- Approximately \$1.51 million against the Hwy 48 Corridor Branch Collection Start-up project; and
- \$137,100 against the Hwy 48 Corridor Branch Collection Materials project.

Total deductions of approximately \$17.46 million result in a decrease to the calculated D.C. for a single detached residential unit of \$32 (from \$2,651 to \$2,619 for Library Services) and a decrease of \$0.01 per sq.ft. of GFA for non-residential development (from \$0.23 to \$0.22 for Library Services).

## 2.5 Refinements to Services Related to a Highway

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The Services Related to a Highway capital program included in the 2023 D.C. Background Study require refinements to the capital cost estimates for several projects. These include project number references 225 through 230, and 234 to 236 in the capital listing. These refinements are required to reflect recent revisions in the draft Transportation Master Plan being undertaken by HDR, and to account for the anticipated funding for project number 226 from Parks Canada and the Region of York.

These refinements result in an overall increase to the D.C. recoverable capital costs for Services Related to a Highway. As a result, the calculated D.C. per single detached

residential dwelling unit increases by \$4 (from \$8,356 to \$8,360 for Services Related to a Highway) and by \$0.01 per sq.ft. of GFA for non-residential development (from \$2.99 to \$3.00 for Services Related to a Highway). Note, the revised capital program for Services Related to a Highway, as per the revised Transportation Master Plan, is included as an appendix to the 2023 D.C. Background Study (Appendix N) provide additional information related to project costing.

## **2.6 Refinements to Parks and Recreation Services**

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A refinement to the historic level of service calculation for Parks and Recreation Services is required, specifically for the recreation facilities component of the service standard. The Operations Centre was included in the 2023 D.C. Background Study historic level of service for both the recreation facilities component and the parks operations facilities component. To remove this duplication, the Operations Centre has been removed from the recreation facilities component of the service standard calculation.

Subsequent review of the capital program with Town staff and HDR, identified a duplication of projects within the Parks and Recreation Services capital program and the Services Related to a Highway capital program. The active transportation corridor projects were included as trail projects within the Parks and Recreation Services capital program (i.e., project reference numbers 28 through 37). As a result, approximately \$430,000 in gross capital costs have been removed from the Parks and Recreation Services capital program.

Moreover, a deduction of approximately \$21.19 million is required to address the historic level of service restriction associated with the population incline as discussed in the section 2.2. This deduction has been made against the Leisure Centre Construction project (project reference number 83) within the Parks and Recreation Services capital program.

Overall, the above refinements have decreased the calculated D.C. for Parks and Recreation Services. The D.C. for a single detached residential dwelling unit decreased by \$1,114 (from \$20,370 to \$19,256 for Parks and Recreation Services). The D.C. for non-residential development decreased by \$0.09 per sq.ft. of GFA (from \$1.25 to \$1.16 for Parks and Recreation Services).

## 2.7 Refinements to Wastewater Services

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The Wastewater Services capital program has been refined to update four projects (i.e., project reference numbers 8, 14, 15, and 22). These D.C. projects correspond with the following Master Plan projects:

- WW12 – Subtrunk 1 Extension (part 5 of 6) – 450mm sewer on Keeler Ave. from Forsyth Farm Dr. to the connection to subtrunk 15 on future road to the north;
- WW17 – Subtrunk 18 from – 300mm sewer on future road from Baker Hill Blvd. to Bethesda Rd.;
- WW18 – Subtrunk 18 – 300mm sewer on Bethesda Rd. from future sewer to west of the creek; and
- WW34 – Bona Land Development – 375mm sewer on proposed Street A within Bona Land Development.

The revised draft Water and Wastewater Master Plan provided by GMBP has revised the marginal costs (i.e., the oversizing portion of the project in excess of the local service requirement, which is recovered through D.C.s) from \$38,000 to \$836,000 for project 8 in the 2023 D.C. Background Study (WW12).

The revised draft Water and Wastewater Master Plan also recategorized 2023 D.C. Background Study projects 14 (WW17), 15 (WW18), and 22 (WW33), from L.S.P. Criteria 3 to Criteria 2. This recategorization redefines these projects as D.C. recoverable, as compared to local service which is a direct developer funding responsibility. Further, Master Plan indicates that these projects will benefit development beyond 2051, thus requiring a post period benefit deduction be made. As such, the following a post period benefit deductions have been applied: \$227,000 for project 14, \$91,000 for project 15, and \$214,000 for project 22.

As a result of these refinements, the calculated D.C. per single detached residential unit has increased by \$703 (from \$4,962 to \$5,665 for Wastewater Services) and the calculated DC for non-residential rate development, per sq.ft. of GFA, has increased by \$0.35 (from \$2.53 to \$2.88 for Wastewater Services).

## 2.8 Overall Changes to the D.C. Calculation

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This section presents the changes to the D.C. calculations provided in the Town's 2023 D.C. Background Study based on the refinements presented in the preceding sections of this addendum report. Table 2-1 provides for the revised schedule of charges.

The refinements discussed above have been incorporated into the D.C. calculations and are presented in Tables 2-2 and 2-3 below. Table 2-2 outlines the Town's current D.C. for a single detached residential dwelling unit, as well as the calculated D.C. within the 2023 D.C. Background Study, and the revised D.C. calculated in this addendum report. Table 2-3 provides a similar comparison for non-residential development on a per sq.ft. of G.F.A. basis. In addition, the D.C.s that will be effective upon adoption, based on the legislative mandatory phase-in have been provided in these tables (i.e., 80% of the calculated rates)

Overall, the total calculated D.C. rate for a single detached residential dwelling unit in the water and wastewater urban serviced areas of the Town has decreased by \$551 unit. This is a reduction from \$41,419 in the 2023 D.C. Background Study to \$40,868 in the addendum report. This overall change reflects a decrease in the Town-wide Services component of the charge from \$33,677/unit to \$32,423/unit, and an increase for Area-specific Services (water and wastewater services) from \$7,742/unit to \$8,445/unit.

For non-residential development unit in the water and wastewater urban serviced areas of the Town, the overall the calculated D.C. has increased by \$0.17/sq.ft. of GFA, from \$10.29 in the 2023 D.C. Background Study to \$10.46 in the addendum report. The Town-wide Services component of the D.C. has decreased from \$6.34/sq.ft. to \$6.16/sq.ft., and the Area-specific Services component has increased from \$3.95/sq.ft. to \$4.30/sq.ft.





Table 2-1  
Town of Whitchurch-Stouffville  
Revised Schedule of Development Charges

Service	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Multiple Dwellings	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
<b>Town-wide Services/Class of Service:</b>						
Services Related to a Highway	8,360	6,875	5,520	3,782	2,817	3.00
Fire Protection Services	2,178	1,791	1,438	985	734	1.78
Parks and Recreation Services	19,256	15,835	12,715	8,711	6,487	1.16
Library Services	2,619	2,154	1,729	1,185	882	0.22
Provincial Offences Act including By-Law Enforcement	10	8	7	5	3	0.00
<b>Total Town-wide Services/Class of Services</b>	<b>32,423</b>	<b>26,663</b>	<b>21,409</b>	<b>14,668</b>	<b>10,923</b>	<b>6.16</b>
<b>Urban Services</b>						
Wastewater Services	5,665	4,659	3,741	2,563	1,909	2.88
Water Services	2,780	2,286	1,836	1,258	937	1.42
<b>Total Urban Services</b>	<b>8,445</b>	<b>6,945</b>	<b>5,577</b>	<b>3,821</b>	<b>2,846</b>	<b>4.30</b>
<b>GRAND TOTAL RURAL AREA</b>	<b>32,423</b>	<b>26,663</b>	<b>21,409</b>	<b>14,668</b>	<b>10,923</b>	<b>6.16</b>
<b>GRAND TOTAL URBAN AREA</b>	<b>40,868</b>	<b>33,608</b>	<b>26,986</b>	<b>18,489</b>	<b>13,769</b>	<b>10.46</b>



Table 2-2  
Town of Whitchurch-Stouffville  
D.C. Comparison per Single Detached Residential Dwelling Unit

Service	Current	Calculated September 28, 2023	Calculated - Addendum Report	Phased -In Rate as per Addendum Report
<b>Town-wide Services</b>				
Services Related to a Highway	8,149	8,356	8,360	6,688
Public Works*	176			
Fire Protection Services	861	2,290	2,178	1,742
Parks and Recreation Services	12,395	20,370	19,256	15,405
Library Services	1,273	2,651	2,619	2,095
Administration Studies	872	-	-	-
Provincial Offences Act including By-Law Enforcement	12	10	10	8
<b>Total Town-wide Services</b>	<b>23,738</b>	<b>33,677</b>	<b>32,423</b>	<b>25,938</b>
<b>Area Specific Services:</b>				
Wastewater Services	4,557	4,962	5,665	4,532
Water Services	3,234	2,780	2,780	2,224
<b>Total Area Specific Services</b>	<b>7,791</b>	<b>7,742</b>	<b>8,445</b>	<b>6,756</b>
<b>Grand Total - Urban Area</b>	<b>31,529</b>	<b>41,419</b>	<b>40,868</b>	<b>32,694</b>

\*Public Works in no longer a D.C. eligible services, the fleet and facility requirements have been captured proportionately in eligible services for Water, Wastewater and Services Related to a Highway

Table 2-3  
Town of Whitchurch-Stouffville  
D.C. Comparison per Sq.ft. of GFA for Non-Residential Development

Service	Current	Calculated September 28, 2023	Calculated - Addendum Report	Phased -In Rate as per Addendum Report
<b>Town-wide Services</b>				
Services Related to a Highway	4.43	2.99	3.00	2.40
Public Works*	0.06			
Fire Protection Services	0.59	1.87	1.78	1.42
Parks and Recreation Services	0.40	1.25	1.16	0.93
Library Services	0.06	0.23	0.22	0.18
Administration Studies	0.38	-	-	-
Provincial Offences Act including By-Law Enforcement	-	-	-	-
<b>Total Town-wide Services</b>	<b>5.92</b>	<b>6.34</b>	<b>6.16</b>	<b>4.93</b>
<b>Area Specific Services:</b>				
Wastewater Services	1.98	2.53	2.88	2.30
Water Services	1.19	1.42	1.42	1.14
<b>Total Area Specific Services</b>	<b>3.17</b>	<b>3.95</b>	<b>4.30</b>	<b>3.44</b>
<b>Grand Total - Urban Area</b>	<b>9.09</b>	<b>10.29</b>	<b>10.46</b>	<b>8.37</b>

\*Public Works in no longer a D.C. eligible services, the fleet and facility requirements have been captured proportionately in eligible services for Water, Wastewater and Services Related to a Highway

## 2.9 Changes to the 2023 D.C. Background Study

Based upon the above the following revisions are made to the pages within the 2023 D.C. Background Study (see Appendix A for the amended pages).

Page Reference	Description of Revisions
ES (iv) & (v)	Update to section (e) related to the revised capital costs included in the D.C. calculations as provided in Table ES-3
ES (vi)	Updated Table ES-3, Summary of Infrastructure Costs included in the Development Charge Background Study, and updated page numbering as required to be consecutive.
ES (vii)	Update to section (h) related to the revised calculated D.C.s.

Page Reference	Description of Revisions
ES (ix)	Updates Table ES-4 - Schedule of Development Charges, and updated page numbering as required to be consecutive.
ES (x)	Updated Table ES-5 - Single-detached Dwelling Development Charge Comparison, and updated page numbering as required to be consecutive.
ES (xi)	Updated Table ES-7 - Non-residential Development Charge Comparison per sq.ft. of G.F.A., and updated page numbering as required to be consecutive.
1-3	Updated Figure 1-1- Schedule of Key Dates – to identify the additional Focus Group meeting with key stakeholders and this addendum report.
5-4	Updated to reflect the revised calculation to the historic level of service standards related to parks and recreation services, specifically the total sq.ft. of recreation building area.
5-5	Updates to the parks and recreation service capital breakdown, specifically related to the total capital costs, post-period deduction amount, revised allocation of costs related to the anticipated increase in population within existing units, and the total D.C. eligible amount.
5-6	Updates to the library service capital breakdown, specifically related to the benefit to existing deductions and deductions made in excess of the 15-year historic service standards.
5-8 to 5-12	Updates to Table 5-2 - Infrastructure Costs Included in the Development Charge Calculation for Parks and Recreation Services
5-13	Updates to Table 5-3 - Infrastructure Costs Included in the Development Charge Calculation for Library Services
5-19	Updates to the gross capital costs identified in the draft Transportation Master Plan for services related to a highway, and the other funding

Page Reference	Description of Revisions
	anticipated from Parks Canada and the Region for an active transportation trail project.
5-20	Updates to the average historical level of service and the D.C. eligible amount for fire protection services.
5-21	Updates to deductions made in excess of the historic service standard ceiling for fire protection services.
5-28 and 5-29	Updated Table 5-6 - Infrastructure Costs Included in the Development Charge Calculation for Services Related to a Highway.
5-30 and 5-31	Updated Table 5-7 - Infrastructure Costs Included in the Development Charge Calculation for Fire Protection Services.
5-33	Updated to reflect revised draft wastewater master plan project costing including updates to the post period benefit deductions, in-period growth costs, local service costs (i.e., "Other deductions"), and the portion of growth-related costs related to the anticipated increase in population within existing units.
5-38 and 5-39	Updated Table 5-9 - Infrastructure Costs Included in the Development Charge Calculations for Wastewater Services.
6-2	Updated Table 6-1 - Wastewater Serviced Areas D.C. Calculations.
6-3	Updated Tables 6-3 and 6-4 - Town-Wide Services D.C. Calculations.
6-5	Updated Table 6-6 - Calculated Schedule of Development Charges by Service.
6-6	Updated Table 6-7 - Gross Expenditure and Sources of Revenue Summary for Costs to Incurred over the 10-Year Life of the By-laws.
7-10	Updated recommendations to reflect the Addendum report to the 2023 D.C. Background Study.

Page Reference	Description of Revisions
B-2	Updated Schedule B-1 - Summary of the Level of Service Ceiling by Services Considered, based on the revisions made within the Addendum Report.
B-13	Updated Schedule B-9 - Fire Protection Services – Small Equipment and Gear.
B-17	Updated Schedule B-13 - Parks and Recreation Services – Recreation Facilities.
C-3	Updated Table C-2 - Operating and Capital Expenditure Impacts for Future Capital Expenditures, to reflect the revisions in the Addendum Report.
E-5 to E-9	Updated the numbering throughout pages E-5 and E-9 along with updating the existing subsections 11.2, 11.3, 13.2, and 13.3 to provide more transparency and clarity in the Local Service Policy.
F-4	Updated the resultant total annualized expenditures related to the asset management of growth-related capital as revised by the Addendum Report.
F-5	Updated Table F-1 - Asset Management – Future Expenditures and Associated Revenues 2023\$.
G-26	Updated Schedule B to the Services Related to a Highway draft Development Charges by-law.
H-23	Updated Schedule B to the Fire Protection Services draft Development Charges by-law.
I-24	Updated Schedule B to the Parks and Recreation Services draft Development Charges by-law.
J-24	Updated Schedule B to the Library Services draft Development Charges by-law.

Page Reference	Description of Revisions
M-26	Updated Schedule B to the Wastewater Services draft Development Charges by-law.
N-1 to N-7	Added Appendix which includes the draft Services Related to a Highway Capital Program as per the 2023 Draft Transportation Master Plan (as of November 23, 2023).
O-1 to O-6	Added Appendix which includes the draft Water and Wastewater Services Capital Program as per the 2023 Water and Wastewater Services Master Plan (as of November 23, 2023).



# Chapter 3

## Process for Adoption of the Development Charges By-law





### 3. Process for Adoption of the Development Charges By-law

Sections 1 and 2 provide for a summary of the revisions to the Town's 2023 D.C. Background Study and draft D.C. By-Laws. If Council is satisfied with the above refinements made as a result of public consultation undertaken, the revised draft Transportation Master Plan, revised Water & Wastewater Master Plan, and further discussions with Town staff, this addendum report will be considered for approval by Council as part of the 2023 D.C. Background Study. The following provides the recommendations that are presented for Council's consideration.

**It is recommended that Council:**

"Whenever appropriate, request that grants, subsidies and other contributions be clearly designated by the donor as being to the benefit of existing development or new development, as applicable;"

"Adopt the assumptions contained herein as an 'anticipation' with respect to capital grants, subsidies, and other contributions;"

"Adopt the D.C. approach to calculate the charges on a uniform Town-wide basis for all services (except for water and wastewater services)."

"Adopt the D.C. approach to calculate the water and wastewater charges on an area-specific basis, applicable within the urban service area only;"

"Approve the capital project listing set out in Chapter 5 of the D.C. Background Study dated September 28, 2023, subject to further annual review during the capital budget process;"

"Approve the D.C. Background Study dated September 28, 2023, as amended (if applicable);"

"Determine that no further public meeting is required;" and

"Approve the D.C. By-laws as set out in Appendices G through M.

# Appendix A

## Amended Pages to the 2023 Development Charge Background Study



**Table ES-1**  
**Summary of Anticipated Town-Wide D.C. Growth**

Measure	10 Year	19 Year	29 Year
	2023-2032	2023-2041	2023-2051
(Net) Population Increase	14,636	18,299	47,012
Residential Unit Increase	5,839	7,308	17,721
Non-Residential Gross Floor Area Increase (sq.ft.)	2,710,600	3,428,600	6,538,100
Non-Residential Employment Increase	3,188	3,866	7,423

Source: Watson & Associates Economists Ltd. Forecast 2023

As well, the growth forecast for the Urban Services D.C., for municipal water and wastewater services, is based on the 29-year (2023 to 2051) forecast period, summarized as follows:

**Table ES-2**  
**Summary of Anticipated Urban Services D.C. Growth**

Measure	29 year	29 year
	2023-Urban 29 Year - Water	2023-Urban 29 Year - Wastewater
(Net) Population Increase	34,191	33,641
Residential Unit Increase	12,121	12,001
Non-Residential Gross Floor Area Increase (sq.ft.)	2,798,800	2,761,300
Non-Residential Employment Increase	4,482	4,407

Source: Watson & Associates Economists Ltd. Forecast 2023

- (e) The capital costs identified in Table ES-3 demonstrate the total D.C. eligible capital costs arising from the growth forecast for each eligible service as detailed further in Chapter 5. In total, gross capital costs of \$761.8 million have been identified through Master Plans, the Town’s 10-year capital forecast, and discussion with Town Staff. Of this gross amount, \$78.2 million is related to growth needs beyond the forecast periods included in the D.C. calculation and will be included in future D.C. studies. Other deductions of \$54.1 million relate to exceedance of the historic service standard and must be funded from other Town sources. In addition, \$167.3 million of the gross cost relate to the portion of capital projects that will benefit the existing community, including the anticipated



incline in the existing households over the forecast period. Finally, deductions related to grants, subsidies, and other contributions (i.e., local requirements of developing landowners) in the amount of \$69.8 million have been made. The resultant net growth-related costs included in the D.C. calculations is \$392.35 million, of which \$344.41 is attributed to residential development and \$47.94 million allocated to non-residential development.

The D.C.A. requires a summary be provided of the gross capital costs and the net costs to be recovered over the life of the by-laws (i.e., 10-years). This calculation is provided by service and is presented in Table 6-7.



**Table ES-3**  
**Summary of Infrastructure Costs included in the Development Charges Background Study**

Increased Service Needs Attributable to Anticipated Development	Forecast Period	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
						Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
Services Related to a Highway	2023-2051	226,100,436	-	-	226,100,436	93,485,074	28,000	132,587,362	112,993,182	19,594,180
Fire Protection Services	2023-2051	60,496,645	1,442,600	2,064,300	56,989,745	12,477,605	3,405,000	41,107,141	29,444,506	11,662,635
Parks and Recreation Services	2023-2041	231,740,059	70,191,000	34,601,900	126,947,159	16,413,762	-	110,533,397	106,549,883	3,983,514
Library Services	2023-2041	52,210,102	5,967,000	17,461,600	28,781,502	13,523,953	-	15,257,549	14,494,671	762,877
Provincial Offences Act including By-Law Enforcement	2023-2032	68,500	-	-	68,500	16,019	-	52,481	42,986	9,495
Wastewater Services	2023-2051	112,821,497	621,248	-	112,200,249	11,474,289	38,645,781	62,080,178	54,121,096	7,959,082
Water Services	2023-2051	78,366,587	-	-	78,366,587	19,894,693	27,735,359	30,736,535	26,767,316	3,969,219
<b>Total</b>		<b>\$761,803,826</b>	<b>\$78,221,848</b>	<b>\$54,127,800</b>	<b>\$629,454,178</b>	<b>\$167,285,396</b>	<b>\$69,814,140</b>	<b>\$392,354,643</b>	<b>\$344,413,640</b>	<b>\$47,941,003</b>



- (f) At present, the Town imposes D.C.s on residential and non-residential uses in accordance with By-law 2018-165-FI. The Town is undertaking a D.C. public process and anticipates passing D.C. by-laws for each service identified in the D.C. Background Study. The mandatory public meeting has been set for November 8, 2023, with adoption of the D.C. by-laws anticipated for December 6, 2023.
- (g) The Town-wide D.C. currently in effect for single detached dwelling units is \$23,728. Town-wide non-residential charges are \$5.92 per sq.ft. of gross floor area. In addition to the Town-wide charges, in Water and Wastewater Services areas, additional D.C.s are currently in effect. In fully serviced areas, the total D.C. currently in effect for single-detached dwelling units is \$31,529, and for non-residential development, the rate currently in effect is \$9.09 per sq.ft. of gross floor area.
- (h) This report has undertaken a recalculation of the charges based on future identified needs (presented in Table ES-4 for residential and non-residential). Charges have been provided on a Town-wide basis for all services except for water and wastewater services, which have been provided on an urban serviced area-specific basis. The corresponding single detached unit charge for full services is \$40,868. The non-residential charge is \$10.46 per sq.ft. of gross floor area. Tables ES-5 and ES-6 provide a comparison of the current and calculated rates for a single-detached dwelling and non-residential development on a per sq.ft. basis, respectively. Considerations by Council – The D.C. background study represents the increase in need for service and associated net capital costs attributable to residential and non-residential development over the respective forecast periods.

The following services are calculated based on an area specific Urban Service area 29-year forecast period:

- Water Services; and
- Wastewater Services.

The following services are calculated based on a Town-wide 29-year forecast period:

- Services Related to a Highway; and



**Table ES-4**  
**Schedule of Development Charges**

Service	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Multiple Dwellings	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
<b>Town-wide Services/Class of Service:</b>						
Services Related to a Highway	8,360	6,875	5,520	3,782	2,817	3.00
Fire Protection Services	2,178	1,791	1,438	985	734	1.78
Parks and Recreation Services	19,256	15,835	12,715	8,711	6,487	1.16
Library Services	2,619	2,154	1,729	1,185	882	0.22
Provincial Offences Act including By-Law Enforcement	10	8	7	5	3	0.00
<b>Total Town-wide Services/Class of Services</b>	<b>32,423</b>	<b>26,663</b>	<b>21,409</b>	<b>14,668</b>	<b>10,923</b>	<b>6.16</b>
<b>Urban Services</b>						
Wastewater Services	5,665	4,659	3,741	2,563	1,909	2.88
Water Services	2,780	2,286	1,836	1,258	937	1.42
<b>Total Urban Services</b>	<b>8,445</b>	<b>6,945</b>	<b>5,577</b>	<b>3,821</b>	<b>2,846</b>	<b>4.30</b>
<b>GRAND TOTAL RURAL AREA</b>	<b>32,423</b>	<b>26,663</b>	<b>21,409</b>	<b>14,668</b>	<b>10,923</b>	<b>6.16</b>
<b>GRAND TOTAL URBAN AREA</b>	<b>40,868</b>	<b>33,608</b>	<b>26,986</b>	<b>18,489</b>	<b>13,769</b>	<b>10.46</b>



Table ES-5  
Single-detached Dwelling Development Charge Comparison

Service	Current	Calculated September 28, 2023	Calculated - Addendum Report	Change (Current to Addendum Report)
<b>Town-wide Services</b>				
Services Related to a Highway	8,149	8,356	8,360	0%
Public Works*	176			
Fire Protection Services	861	2,290	2,178	153%
Parks and Recreation Services	12,395	20,370	19,256	55%
Library Services	1,273	2,651	2,619	106%
Administration Studies	872	-	-	-100%
Provincial Offences Act including By-Law Enforcement	12	10	10	-17%
<b>Total Town-wide Services</b>	<b>23,738</b>	<b>33,677</b>	<b>32,423</b>	<b>37%</b>
<b>Area Specific Services:</b>				
Wastewater Services	4,557	4,962	5,665	24%
Water Services	3,234	2,780	2,780	-14%
<b>Total Area Specific Services</b>	<b>7,791</b>	<b>7,742</b>	<b>8,445</b>	<b>8%</b>
<b>Grand Total - Urban Area</b>	<b>31,529</b>	<b>41,419</b>	<b>40,868</b>	<b>30%</b>

\*Public Works in no longer a D.C. eligible services, the fleet and facility requirements have been captured proportionately in eligible services for Water, Wastewater and Services Related to a Highway





Table ES-6  
Non-residential Development Charge Comparison per sq.ft. of Gross Floor Area

Service	Current	Calculated September 28, 2023	Calculated - Addendum Report
<b>Town-wide Services</b>			
Services Related to a Highway	4.43	2.99	3.00
Public Works*	0.06		
Fire Protection Services	0.59	1.87	1.78
Parks and Recreation Services	0.40	1.25	1.16
Library Services	0.06	0.23	0.22
Administration Studies	0.38	-	-
Provincial Offences Act including By-Law Enforcement	-	-	-
<b>Total Town-wide Services</b>	<b>5.92</b>	<b>6.34</b>	<b>6.16</b>
<b>Area Specific Services:</b>			
Wastewater Services	1.98	2.53	2.88
Water Services	1.19	1.42	1.42
<b>Total Area Specific Services</b>	<b>3.17</b>	<b>3.95</b>	<b>4.30</b>
<b>Grand Total - Urban Area</b>	<b>9.09</b>	<b>10.29</b>	<b>10.46</b>

\*Public Works in no longer a D.C. eligible services, the fleet and facility requirements have been captured proportionately in eligible services for Water, Wastewater and Services Related to a Highway



Process Steps	Dates
Public release of final D.C. Background study and proposed by-law	September 28, 2023
D.C. Background Study Presented to Council	October 4, 2023
Public meeting advertisement placed in newspaper(s)	By 21 Days prior to the Public Meeting
Public meeting of Council	November 8, 2023
Focus Group Meeting with Key Stakeholders	November 16, 2023
Addendum Report Released to the Public	November 27, 2023
Council considers adoption of background study and passage of by-law	December 6, 2023
Newspaper notice given of by-law passage	By 20 days after passage
Last day for by-law appeal	40 days after passage
Town makes pamphlet available (where by-law not appealed)	By 60 days after in force date

### 1.3 Changes to the Development Charges Act, 1997

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Over the past four years, a number of changes to the Development Charges Act, 1997 have been introduced through various legislation including the following:

- *More Homes, More Choice Act, 2019;*
- *Plan to Build Ontario Together Act, 2019;*
- *COVID-19 Economic Recovery Act, 2020;*
- *Better for People, Smarter for Business Act, 2020;*
- *More Homes for Everyone Act, 2022;*



## 5.3 Service Levels and 19-Year (2023-2041) Capital Costs for Town-wide D.C. Services Calculation

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This section evaluates the development-related capital requirements for services over the 2023-2041 planning period.

### 5.3.1 Parks and Recreation Services

The Town currently provides a variety of parks and recreation-related assets to service the community. A summary of their inventory is provided below:

- 459.42 acres of parkland (consisting of neighbourhood/community parks/parkettes and nature open space), which provides an average historical level of service of \$535 and D.C. eligible recovery amount of approximately \$9.79 million;
- 4,468 amenities that include items such as soccer fields, baseball diamonds, skateboard parks, outdoor fitness equipment, benches, and picnic tables, etc., that provides an average historical level of service of \$815 and D.C. eligible recovery amount of approximately \$14.91 million;
- 27,197 linear metres of trails and paths, a 400-metre track, and 12,852 sq.m, of parking lots within parks, which provides an average historical level of service of \$287 and D.C. eligible recovery amount of approximately \$5.26 million;
- 259,303 sq.ft. of recreational building area that includes various recreation complexes, pools, operations centre, etc., that provides an average historical level of service of \$3,984 and D.C. eligible recovery amount of approximately \$72.9 million;
- 23,659 sq.ft. of Parks Operations Facility space, which provides an average historical level of service of \$310 and D.C. eligible recovery amount of approximately \$5.67 million; and
- 68 vehicles and equipment related to Parks and Recreation Services (including pickup trucks, trailers, mowers, etc.), which provides an average historical level of service of \$86 and D.C. eligible recovery amount of approximately \$1.56 million.

In total, the Town's Parks and Recreation Service has provided a 15-year historical level of service that equates to an investment of \$110,085,686.



Table 5-2 presented the anticipated capital program over the 19-year forecast period. The growth-related needs for parks and recreation services have been developed based on discussion with Town staff, the department's capital plan, and the Draft Leisure and Community Services Master Plan, dated September 2022. The capital program provides for additional park development, new and/or expanded facilities, trails, outdoor park amenities, vehicles, and equipment to service growth over the 2023-2041 forecast period. The gross capital cost of all projects is estimated at \$220.09 million. In addition, outstanding debt (principal and interested, discounted) of approximately \$11.65 million has been included for recovery through D.C.s. Of the total gross cost of approximately \$231.7 million of capital costs, approximately \$70.19 million has been deducted as a post period benefit and \$34.6 million has been deducted related to growth-related costs that are in excess of the historic service standard ceiling. Further, a benefit to existing of \$16.41 million has been identified, of which approximately \$1.37 million relates to the anticipated increased in population within existing residential units over the forecast period to 2041. As a result, the D.C. eligible amount is approximately \$110.5 million.

Parks and Recreation Services' residential and non-residential attributions have been determined based on the approach used in the Town's 2019 D.C. Study process, whereby the allocation of needs to non-residential development required was assessed using evidentiary support that has been made in the past. Booking reference data supported the nominal application of recreation facility capital costs to non-residential development. However, support was not provided for parks assets. As such, the parkland development capital needs have been allocated 100% to residential development, with 95% of the recreational facility costs being allocation to residential development. For parks and recreation vehicles and equipment an allocation of 96% to residential has been used based on the weighted allocation of growth-related capital costs.

### **5.3.2 Library Services**

Currently, the Town maintains 32,300 sq.ft. of space allocated for library services. Of the 32,000 sq.ft., 300 sq.ft. is allocated for offsite storage and the balance relates to the library. This provides an average historical level of service of \$552 and a D.C. eligible amount of approximately \$10.1 million. In addition, the Town currently has an inventory of 278,344 library collection items. These collection items include books, CDs and DVDs, periodicals, databases, and e-resources, all of which all provide an average



historical level of service of \$284 and D.C. eligible amount of \$5.2 million approximately. In total, the service standard provides for a maximum D.C. eligible amount of approximately \$15.3 million over the forecast period.

Table 5-3 provides a listing of the capital needs over the forecast period for Library Services. The capital needs required to accommodate growth are based on the Whitchurch-Stouffville Public Library Needs Assessment and Master Plan, dated May 2022, the capital forecast, and discussions with Library staff. The total gross cost of approximately \$52.21 million has been identified. This capital cost includes additional assets needed for a new Hwy 48 Corridor Branch and a new Ballantrae Branch, along with associated capital costs related to collection materials, furniture, equipment, and technology for the additional library branches, along with additional furniture, equipment and collection material needs for the main library (i.e., the Leisure Centre Branch). Outstanding debt related to cash flowing the Leisure Centre Branch Library Facility expansion that was identified previously to service growth has also included in the gross costs (discounted).

A reduction has been made related to the increase in space needs attributable to the existing community, based on the Master Plan's change in level of service from 0.65 sq.ft. per capita to 0.85 sq.ft. per capita, along with the associated furniture, equipment and materials has been made against the gross costs in the amount of approximately \$11.32 million (i.e., Ballantrae Branch). In addition, benefit to existing deductions have also been made in the amount of approximately \$1.49 million related to the Hwy 48 corridor branch, \$0.53 million related to the existing D.C. reserve fund, and \$0.19 million related to the increase anticipated in existing households over the forecast period. These benefit to existing deductions equates to a total of \$13,526,196.

Further, reductions have been made related to future growth (i.e., post period benefit) of approximately \$5.97 million and \$17.46 million related to costs in excess of the 15-year historic services standards. As a result of all deductions, the total D.C. eligible cost is \$15.26 million of which 95% is attributable to residential development and 5% to non-residential development based on relationship of the incremental increase to population and employment anticipated over the 2023-2041 forecast period.



**Table 5-2**  
**Town of Whitchurch-Stouffville**  
**Infrastructure Costs Included in the Development Charge Calculation**  
**For Parks and Recreation Services (continued)**

Prj. No.	Increased Service Needs Attributable to Anticipated Development  2023-2041	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	<b>Pedestrian Bridges</b>										
21	Little Rouge @ Ringwood SWM	2025	434,200	-	204,100	230,100	230,100		-	-	-
22	Little Rouge W. - StouffCon8	2023-2024	1,589,000	-	-	1,589,000	-		1,589,000	1,589,000	-
23	Stouffville Reservoir - Millard	2025	434,200	-	434,200	-	-		-	-	-
24	Reesor Creek	2025	434,200	-	434,200	-	-		-	-	-
25	Savana Cove -located Steam Whistle Dr and Conductor Ave	2024	434,200	-	-	434,200	-		434,200	434,200	-
26	L& M Gardens	2023	92,000	-	-	92,000	-		92,000	92,000	-
27	Little Rouge E - Stouffcon8 & Mattamy / Maio -located at Ken Betz to Madori Park	2027	1,259,000	-	1,259,000	-	-		-	-	-
	<b>Parkland Amenities</b>										
28	Minor Sports Fields (Soccer)	2028	1,679,000	-	1,460,700	218,300	-		218,300	218,300	-
29	Senior Soccer Flds (Bethesda)	2026	884,000	-	769,100	114,900	-		114,900	114,900	-
30	Diamond 3 Bethesda Park	2025-2026	884,000	-	-	884,000	-		884,000	884,000	-
31	Ten Micro Soccer Fields	2027	733,000	-	637,700	95,300	-		95,300	95,300	-
32	Picnic Shelter - Bethesda Pk	2025	217,000	-	188,800	28,200	-		28,200	28,200	-
33	Lit Tennis/Pickleball Courts Memorial Park	2023	215,000	-	-	215,000	-		215,000	215,000	-
34	Cricket Pitch	2027	579,000	-	-	579,000	-		579,000	579,000	-
35	New Sport Fields Baseball Expansion (3), Community Park	2023-2029	2,171,000	-	1,888,800	282,200	-		282,200	282,200	-
	<b>New Parks/Parkettes</b>										
36	Phase 3 Neighbourhood Park (NP8-B) West	2025-2026	1,600,000	-	-	1,600,000	-		1,600,000	1,600,000	-
	<b>Baseball Diamonds</b>										
37	Premium Baseball Diamond	2024-2030	480,000	-	-	480,000	-		480,000	480,000	-
38	Recreational Basball Diamond	2024-2030	160,000	-	-	160,000	-		160,000	160,000	-
39	Premium Softball Diamond	2024-2030	452,000	-	-	452,000	-		452,000	452,000	-
40	Recreational Softball Diamond	2024-2030	197,000	-	-	197,000	-		197,000	197,000	-
41	Lit sports fields	2024-2030	301,000	-	-	301,000	-		301,000	301,000	-
42	Sport Fields Irrigation	2024-2030	183,000	-	-	183,000	-		183,000	183,000	-



Table 5-2  
Town of Whitchurch-Stouffville  
Infrastructure Costs Included in the Development Charge Calculation  
For Parks and Recreation Services (continued)

Prj. No.	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2023-2041										
	<b>Changeroom / Washrooms</b>										
43	New Dedicated Washroom Building to support tournament space	2025-2030	500,000	-	-	500,000	-		500,000	475,000	25,000
44	Additional Washroom Building to be added to existing building	2025-2030	350,000	-	-	350,000	-		350,000	332,500	17,500
45	New Changeroom/Washroom Building	2025-2030	750,000	-	-	750,000	-		750,000	712,500	37,500
	<b>Soccer Fields</b>										
46	Premium Soccer Field	2025-2030	460,000	-	-	460,000	-		460,000	460,000	-
47	Artificial Turf Field	2025-2030	1,506,000	-	-	1,506,000	-		1,506,000	1,506,000	-
48	Recreational Soccer	2024-2029	300,000	-	-	300,000	-		300,000	300,000	-
49	Mini Soccer	2024-2029	113,000	-	98,300	14,700	-		14,700	14,700	-
50	Lit Sports Fields	2024-2029	301,000	-	-	301,000	-		301,000	301,000	-
51	Sport Fields Irrigation	2024-2029	183,000	-	-	183,000	-		183,000	183,000	-
	<b>Playgrounds/Play Sites</b>										
52	Traditional Play Site - Senior	2023-2028	250,000	-	-	250,000	-		250,000	250,000	-
53	Fully Accessible Playground	2023-2028	427,000	-	-	427,000	-		427,000	427,000	-
54	Memorial Play Sites (one Senior Accessible and one Junior)	2023	627,000	-	-	627,000	-		627,000	627,000	-
55	Additional Play Sites in Intensification and Infill Areas to replace and expand existing structures with larger ones	2023-2028	1,250,000	-	-	1,250,000	312,500		937,500	937,500	-
	<b>Other Amenities</b>										
55	Cricket Pitches	2023-2028	60,000	-	-	60,000	-		60,000	60,000	-
56	Outdoor Scoreboard	2024-2029	60,000	-	-	60,000	-		60,000	60,000	-
57	Basketball - Full Court	2023-2028	90,000	-	-	90,000	-		90,000	90,000	-
58	Basketball - Half Court	2023-2028	125,000	-	-	125,000	-		125,000	125,000	-
59	Multi-use Court	2023-2028	250,000	-	-	250,000	-		250,000	250,000	-
60	Tennis Courts (2 courts)	2023-2028	165,000	-	-	165,000	-		165,000	165,000	-
61	Park Benches	2023-2028	3,600	-	-	3,600	-		3,600	3,600	-
62	Fitness Stations	2023-2028	18,500	-	-	18,500	-		18,500	18,500	-
63	Beach Volleyball Courts	2024-2029	75,000	-	-	75,000	-		75,000	75,000	-
64	Premium Spray Pad	2024-2029	380,000	-	-	380,000	-		380,000	380,000	-
65	Basic Spray Pad	2024-2029	150,000	-	-	150,000	-		150,000	150,000	-



**Table 5-2**  
**Town of Whitchurch-Stouffville**  
**Infrastructure Costs Included in the Development Charge Calculation**  
**For Parks and Recreation Services (continued)**

Prj. No.	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2023-2041										
66	Concession Building	2025-2030	680,000	-	-	680,000	-		680,000	680,000	-
67	Field House	2024-2029	490,000	-	-	490,000	-		490,000	490,000	-
68	Lawn Bowling Pitch	2025-2030	200,000	-	-	200,000	-		200,000	200,000	-
69	Bike Racks	2023-2024	2,000	-	-	2,000	-		2,000	2,000	-
70	Service Gate - 8-10 feet	2025-2030	2,800	-	-	2,800	-		2,800	2,800	-
71	Water Chamber and Hydrant	2024-2029	15,000	-	-	15,000	-		15,000	15,000	-
72	Pedestrian Lighting	2024-2029	10,000	-	-	10,000	-		10,000	10,000	-
73	Picnic Pavilion (Large)	2025-2030	230,000	-	-	230,000	-		230,000	230,000	-
74	Picnic Pavilion (Small)	2025-2030	125,000	-	-	125,000	-		125,000	125,000	-
75	Gazebo	2025-2030	300,000	-	-	300,000	-		300,000	300,000	-
76	Shade Structure	2024-2029	70,000	-	-	70,000	-		70,000	70,000	-
77	Pergola	2024-2029	150,000	-	-	150,000	-		150,000	150,000	-
78	Skateboard Park	2026-2031	640,000	-	556,800	83,200	-		83,200	83,200	-
79	Skateboard Spot	2026-2031	350,000	-	-	350,000	-		350,000	350,000	-
80	Disc Golf	2023-2028	50,000	-	-	50,000	-		50,000	50,000	-
81	Dog Park	2024-2029	65,000	-	-	65,000	-		65,000	65,000	-
	<b>Leisure Facilities</b>										
82	Memorial Park Phasing - Facility Related	2023	1,320,000	-	-	1,320,000	1,056,000		264,000	250,800	13,200
83	Leisure Centre Construction (include an Aquatic multi-tank, Fitness Centre, Ice Pads (2), Gymnasium, Multi-use spaces, office spaces, FF&E, and land)	2028-2030	164,516,000	70,191,000	21,189,700	73,135,300	6,777,200		66,358,100	63,040,195	3,317,905
	<b>Vehicles and Equipment</b>										
84	3/4 Ton 4x4 Truck - Parks	2024	86,000	-	-	86,000	-		86,000	82,939	3,061
85	Small Dump Truck	2023	100,000	-	-	100,000	-		100,000	96,440	3,560
86	Trailer	2023	30,000	-	-	30,000	-		30,000	28,932	1,068
87	Miska 20 ft Landscape Trailer	2024	10,900	-	-	10,900	-		10,900	10,512	388
88	Wide Deck Mower	2026	90,000	-	-	90,000	-		90,000	86,796	3,204
89	Zero Turn Mowers (2)	2023-2026	70,000	-	-	70,000	-		70,000	67,508	2,492





**Table 5-2**  
**Town of Whitchurch-Stouffville**  
**Infrastructure Costs Included in the Development Charge Calculation**  
**For Parks and Recreation Services (continued)**

Prj. No.	Increased Service Needs Attributable to Anticipated Development  2023-2041	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
90	Tractor	2023	125,000	-	-	125,000	-		125,000	120,550	4,450
91	Tractor	2026	82,000	-	-	82,000	-		82,000	79,081	2,919
92	ATV Utility Vehicle	2023	35,000	-	-	35,000	-		35,000	33,754	1,246
93	Ram, Model 2500, white, Year 2023 w/ Crew Cab 4x4 6.5' box	2023	66,300	-	-	66,300	-		66,300	63,940	2,360
94	Ram 1500	2023	81,000	-	-	81,000	-		81,000	78,117	2,883
	<b>Strategic Initiatives</b>										
95	Maintenance Technician Van, - contingent of New 2023 FTE request (Maintenance Technician Van for the new FTE request - pending Council)	2023	75,000	-	-	75,000	-		75,000	72,330	2,670
96	Gator and Spray Cart (New gator and spray cart for ice maintenance at Stouffville Arena)	2027	45,000	-	-	45,000	-		45,000	43,398	1,602
	<b>Growth-Related Debt</b>										
97	Hillmount Park (include splash pad) - Debt Principal	2023-2025	146,469	-	-	146,469	-		146,469	146,469	-
98	Hillmount Park (includes splash pad) - Debt Interest (Discounted)	2023-2025	3,850	-	-	3,850	-		3,850	3,850	-
99	Tresstown Park Phase II (includes jr. ball diamond) - NPV of Principal Payments	2023-2025	53,022	-	-	53,022	-		53,022	53,022	-
100	Tresstown Park Phase II (includes jr. ball diamond) - NPV of Interest Payments	2023-2025	1,394	-	-	1,394	-		1,394	1,394	-
101	Greenwood Parkette - Debt Principal	2023-2025	146,469	-	-	146,469	-		146,469	146,469	-
102	Greenwood Parkette - Debt Interest (Discounted)	2023-2025	3,850	-	-	3,850	-		3,850	3,850	-
103	Memorial Park - Debt Principal	2023	9,912	-	-	9,912	-		9,912	9,912	-
104	Memorial Park - Debt Interest (Discounted)	2023	239	-	-	239	-		239	239	-
105	Aquatic and Leisure Centre Facility Expansion Phase 1 - NPV of Anticipated Principal Payments	2023-2027	1,713,773	-	-	1,713,773	-		1,713,773	1,628,084	85,689
106	Aquatic Facility Expansion and Leisure Centre Phase 1 - NPV of Anticipated Interest Payments	2023-2025	207,857	-	-	207,857	-		207,857	197,464	10,393
107	Clippers Arena - NPV of Principal Payments	2023-2027	7,499,950	-	-	7,499,950	-		7,499,950	7,124,953	374,997
108	Clippers Arena - NPV of Interest Payments	2023-2027	1,545,784	-	-	1,545,784	-		1,545,784	1,468,495	77,289
109	Operations Centre (growth share) - P&R - NPV of Principal Payments	2023-2036	260,595	-	-	260,595	-		260,595	251,318	9,277
110	Operations Centre (growth share) - Parks & Recreation - Interest Payments (discounted)	2023-2036	53,295	-	-	53,295	-		53,295	51,398	1,897



Table 5-2  
Town of Whitchurch-Stouffville  
Infrastructure Costs Included in the Development Charge Calculation  
For Parks and Recreation Services (continued)

Prj. No.	Increased Service Needs Attributable to Anticipated Development  2023-2041	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	<b>Adjustments</b>										
111	Adjustment related to Existing Population Incline						1,368,217		(1,368,217)	(1,368,217)	-
112	Reserve Fund Adjustment						534,745		(534,745)	(515,709)	(19,036)
	<b>Total</b>		<b>231,740,059</b>	<b>70,191,000</b>	<b>34,601,900</b>	<b>126,947,159</b>	<b>16,413,762</b>	<b>-</b>	<b>110,533,397</b>	<b>106,549,883</b>	<b>3,983,514</b>



**Table 5-3**  
**Town of Whitchurch-Stouffville**  
**Infrastructure Costs Included in the Development Charge Calculation**  
**For Library Services**

Prj. No.	Increased Service Needs Attributable to Anticipated Development  2023-2041	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 95%	Non-Residential Share 5%
<b>Facilities</b>											
1	Lesiure Centre Branch Library Facility Expansion - Principal	2023-2038	1,154,934	-		1,154,934	-		1,154,934	1,097,187	57,747
2	Lesiure Centre Branch Library Facility Expansion - Interest (Discounted)	2023-2038	140,078	-		140,078	-		140,078	133,074	7,004
3	Ballantrae Branch (NEW)	2026	8,116,000	-		8,116,000	8,116,000		-	-	-
4	Hwy 48 Corridor Branch (New)	2027-2031	25,920,000	4,047,000	11,842,100	10,030,900	971,200		9,059,700	8,606,715	452,985
<b>Furniture and Equipment</b>											
5	Lesiure Centre Branch - Additional Furniture and Equipment	2023	43,000	-	-	43,000	-		43,000	40,850	2,150
6	Lesiure Centre Branch - Additional Furniture and Equipment	2024	20,000	-	-	20,000	-		20,000	19,000	1,000
7	WSPL Ballantrae Branch - Furniture and Equipment	2025	2,200,000	-	-	2,200,000	2,200,000		-	-	-
8	WSPL Ballantrae Branch - Technology	2025	100,000	-	-	100,000	100,000		-	-	-
9	Hwy 48 Corridor Branch - Furniture and Equipment	2030-2031	8,300,000	1,296,000	3,792,000	3,212,000	311,000		2,901,000	2,755,950	145,050
10	Hwy 48 Corridor Branch - Technology	2030-2031	400,000	62,000	182,700	155,300	15,000		140,300	133,285	7,015
<b>Library Materials</b>											
11	Leisure Centre Branch - Library Collection Materials	2023	233,014	-	-	233,014	-		233,014	221,363	11,651
12	Leisure Centre Branch - Library Collection Materials	2024	223,182	-	-	223,182	-		223,182	212,023	11,159
13	Leisure Centre Branch - Library Collection Materials	2025	223,182	-	-	223,182	-		223,182	212,023	11,159
14	Leisure Centre Branch - Library Collection Materials	2026	223,182	-	-	223,182	-		223,182	212,023	11,159
15	Leisure Centre Branch - Library Collection Materials	2027	223,182	-	-	223,182	-		223,182	212,023	11,159
16	Leisure Centre Branch - Library Collection Materials	2028	115,648	-	-	115,648	-		115,648	109,866	5,782
17	Ballantrae Branch Collection Start-up	2025	750,000	-	-	750,000	750,000		-	-	-
18	Ballantrae Branch Collection Materials	2026-2031	150,000	-	-	150,000	150,000		-	-	-
19	Hwy 48 Corridor Branch Collection Start-up	2027-2031	3,300,000	515,000	1,507,700	1,277,300	123,600		1,153,700	1,096,015	57,685
20	Hwy 48 Corridor Branch Collection Materials	2032	300,000	47,000	137,100	115,900	11,200		104,700	99,465	5,235
<b>Library Vehicle</b>											
21	Library Vehicle	2026	74,700	-	-	74,700	55,200		19,500	18,525	975
<b>Adjustments</b>											
22	Adjustment related to Existing Population Incline						186,008		(186,008)	(176,708)	(9,300)
23	Reserve Fund Adjustment						534,745		(534,745)	(508,008)	(26,737)
	<b>Total</b>		<b>52,210,102</b>	<b>5,967,000</b>	<b>17,461,600</b>	<b>28,781,502</b>	<b>13,523,953</b>	<b>-</b>	<b>15,257,549</b>	<b>14,494,671</b>	<b>762,877</b>



### **5.4.2 Services Related to Highway**

The Town owns and maintains approximately 112.7 km of arterial and collector roads. This provides a historical average level of service of \$5,543 per capita, resulting in a D.C. eligible recovery amount of \$260.6 million, approximately. The Town's road network also includes eight (8) major bridges and nine (9) major culverts, which equates to provides a historical average level of service of \$249 per capital and a D.C. eligible recovery amount of approximately \$11.7 million. Additionally, the road network provides 18 km of sidewalks and streetlights. This provides a historical average level of service of \$316 per capital and approximately \$14.87 million costs that are eligible for D.C. recovery. In total, the D.C. recoverable amount for the Services Related to a Highway equals approximately \$287.18 million. This level of service is in addition to the historic service standard value for public works facilities and fleet as discussed in Section 5.4.1, herein.

HDR is currently undertaking a Transportation Master Plan (T.M.P.) for the Town. The Master Plan includes a review of the Town's needs for services related to a highway, for the forecast period to 2051. The capital needs identified in the draft T.M.P. has been included in the capital program included in the D.C. calculations. The T.M.P. capital program has provided needs for new road construction/reconstruction, multi-use pathways in boulevards, paved shoulders, shared route treatments, intersections, illumination, sidewalks, signals, roundabouts, creek crossing structures, traffic management systems, off-road multi-use trails and hiking trails, and naturalized trails. In addition, as noted in section 5.4.1, the capital needs related to the Public Works fleet and facilities has been included. Further, outstanding debt (discounted) and credits have been included based on discussions with Town staff. The total gross capital program for Services Related to a Highway equates to \$226.1 million.

A number of reductions to the gross costs have been made, including:

- Benefit to existing development of \$77.66 million against the capital identified in the T.M.P.;
- Approximately \$7.37 related to the anticipated increased population in existing households over the 2051 forecast period (indicated in the Benefit to Existing calculations);



- \$28,000 related to funding anticipated from Parks Canada and the Region of York related to the off road trail in Memorial Park; and
- The reserve fund balance of approximately \$8.45 million (including the proportionate share of the public works D.C. reserve fund as noted in Table 5-5).

The net growth-related cost of \$132.59 million for Services Related to a Highway has been allocated between future residential and non-residential development on the basis of incremental population to employment growth over the build-out forecast period to 2051 (i.e., 86% residential and 14% non-residential).

### **5.4.3 Fire Protection Services**

There are currently two (2) fire stations within the Town. This provides the Town with 28,626 sq.ft. of facility space. As a result, the average historical level of service the fire stations provide is \$671, with a D.C. eligible amount of approximately \$31.56 million. Further, the Town has 19 vehicles related to Fire Protection Services, including pumper rescue, pumper tankers, pick up trucks, etc., this provides for an average historical level of service of \$216 per capita and a D.C. eligible amount of approximately \$10.14 million. The Town also currently employs 69 staff (part time and full time) to provide Fire Protection Services, the equipment and gear required for these staff, provides an average historical level of service of \$22 and a D.C. eligible amount of approximately \$1.02 million. In total the 15-year historic service standard provides for approximately \$42.72 million in D.C. eligible costs.

The capital program for Fire Protection Services can be found in Table 5-7. This program was developed based on the Fire Master Plan, dated April 2022, and refined through discussions with Town staff and the department's capital plan. It includes growth-related capital costs such as the need of three (3) additional fire stations (Lincolnvile, Bloomington, and Ringwood) and associated vehicles, equipment, and gear to service the growth during the forecast period to 2051. The gross capital cost of the additional capital needs, including outstanding debt payments (discounted) totals approximately \$60.5 million. A deduction in the amount of approximately \$1.44 million has been made to acknowledge the post-period benefit (i.e., future growth-related benefit). Further, a deduction in the amount of approximately \$10.39 million has made in relation to the amount of the capital program which will the benefit the existing community. Additionally, a reduction of \$2.06 million has been made related to the



amount of growth costs in excess of the historic service standard ceiling and a deduction of \$2.09 million has been made in relation to the anticipated increase in population to existing household. Moreover, \$3.4 million has been deducted related the portion of Station 52 which will be recovered through the Region related to the portion of the facility that will be utilized for ambulance services. Finally, the deficit in the existing reserve fund has been included in the amount of approximately \$2.05 million for past growth-related capital undertaken. Therefore, the net growth-related costs are approximately \$41.1 million approximately, of which 73% is allocated to the residential growth and 27% to the non-residential growth based on a land area split of the growth areas to be serviced via the new facilities.



Table 5-6 (continued)  
Town of Whitchurch-Stouffville  
Infrastructure Costs Included in the Development Charge Calculation  
For Services Related to a Highway

Prj. No.	Increased Service Needs Attributable to Anticipated Development			Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
									Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 86%	Non-Residential Share 14%
	2023-2051	From	To										
	<b>Off-Road Multi-Use Trails</b>												
212	Greenwood Parkette Multi-Use Trail	Greenwood Road	Existing hiking trail in Greenwood Parkette	2032-2041	131,000	-		131,000	65,500		65,500	56,330	9,170
213	Memorial Park Off Road trail	O'Brien Avenue terminus	Hoover Park Drive	2023-2031	189,000	-		189,000	94,500		94,500	81,270	13,230
214	Memorial Park Off Road Trail	Park Drive	Existing off road trail	2023-2031	145,000	-		145,000	72,500		72,500	62,350	10,150
215	Off Road Trail	Connor Drive Terminus	Cedarvale Boulevard Terminus	2023-2031	29,000	-		29,000	14,500		14,500	12,470	2,030
216	Off Road Trail at 138 Sandiford Drive	Sandiford Drive	Existing hiking trail	2023-2031	152,000	-		152,000	76,000		76,000	65,360	10,640
217	Off Road trail at Gar Lehman Avenue terminus	Development Area	Existing off road trail	2032-2041	109,000	-		109,000	54,500		54,500	46,870	7,630
218	Off Road Trail at Gar Lehman Avenue	Existing off road trail	Gar Lehman Avenue	2032-2041	29,000	-		29,000	14,500		14,500	12,470	2,030
219	Off Road Trail east of Baker Hill Boulevard	Main Street	Approximately 540m north of Main Street	2032-2041	392,000	-		392,000	196,000		196,000	168,560	27,440
220	Off Road Trail from Ringwood Drive	Ringwood Drive	Existing hiking trail	2032-2041	370,000	-		370,000	185,000		185,000	159,100	25,900
221	Off Road Trail through forest south of Hoover Park	Ninth Line	Existing off trail parallel railway	2032-2041	276,000	-		276,000	138,000		138,000	118,680	19,320
222	Off-Road trail at terminus of Hillsdale Road	Hillsdale Road terminus	Hillsdale Road (approximately 720m east)	2023-2031	522,000	-		522,000	261,000		261,000	224,460	36,540
223	Proposed Off Road Trail in Duffins Creek	Existing off road trail in Duffins Creek	Main Street	2023-2031	406,000	-		406,000	203,000		203,000	174,580	28,420
224	Off-Road Multi-Use Trails in Development Area			2042-2051	8,208,000	-		8,208,000	4,104,000		4,104,000	3,529,440	574,560
225	Asphalt Off Road Trail-SW Quadrant to Ninth Line			2025	88,800	-		88,800	44,400		44,400	38,184	6,216
226	Off Road Trail in Memorial Park - Park Drive to Lori Avenue Path			2026	28,000	-		28,000	-	28,000	-	-	-
227	Asphalt Off Road Trail-Bethesda Park Connection			2025	33,700	-		33,700	16,900		16,800	14,448	2,352
228	Asphalt Off Road Trail-Stouffville Arena Field			2026	32,800	-		32,800	16,400		16,400	14,104	2,296
229	Asphalt Off Road Trail-Ringwood Pond Connection			2024	33,700	-		33,700	16,900		16,800	14,448	2,352
230	Asphalt Off Road Trail-Stouffville Cres.-Main to North of Mill Street (up to Stouffville Reservoir)			2026	55,500	-		55,500	27,800		27,700	23,822	3,878
	<b>Off-Road Hiking Trail</b>										-	-	-
231	Stouffville Reservoir Trail Connection	Stouffville Reservoir Trail	Proposed development	2032-2041	44,100	-		44,100	22,100		22,000	18,920	3,080
	<b>Naturalized Trails</b>										-	-	-
232	Off-Road trails (Unbuilt - Stouffville Trails Master Plan)			2023-2031	273,400	-		273,400	136,700		136,700	117,562	19,138
233	Off-Road trails (Unbuilt - Ballantrae Secondary Plan)			2023-2031	2,761,200	-		2,761,200	1,380,600		1,380,600	1,187,316	193,284
234	McCowan Road	Faulkner Avenue	200m south of Cherry Street	2030	75,700	-		75,700	37,900		37,800	32,508	5,292
235	Naturalized Off Road Trails-Hoover Park Drive Woodlot E			2027	31,400	-		31,400	15,700		15,700	13,502	2,198
236	Naturalized Off Road Trail-Hoover Park Drive Woodlot W			2027	29,500	-		29,500	14,800		14,700	12,642	2,058
	<b>Fleet and Facilities</b>												
237	Operations Facilities	Refer to Class of Service Listing		2023-2036	8,041,109	-		8,041,109	-		8,041,109	6,915,354	1,125,755
238	Operations Facilities - Growth-related debt financing (discounted)	Refer to Class of Service Listing		2023-2036	248,709	-		248,709	-		248,709	213,890	34,819
239	Fleet	Refer to Class of Service Listing		2023-2051	8,912,003	-		8,912,003	-		8,912,003	7,664,323	1,247,680



Table 5-6 (continued)  
Town of Whitchurch-Stouffville  
Infrastructure Costs Included in the Development Charge Calculation  
For Services Related to a Highway

Prj. No.	Increased Service Needs Attributable to Anticipated Development			Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
									Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 86%	Non-Residential Share 14%
	2023-2051	From	To										
	<b>Outstanding Growth-Related Debt</b>										-	-	-
240	Main St. - Growth-Related Principal Payments			2023-2036	1,719,375	-		1,719,375	-		1,719,375	1,478,662	240,712
241	Main St. - Growth-Related Interest Payments (discounted)			2023-2036	351,633	-		351,633	-		351,633	302,405	49,229
242	Trailbridges Growth-Related Principal Payments			2023	43,879	-		43,879	-		43,879	37,736	6,143
243	Trailbridges Growth-Related Interest Payments (Discounted)			2023	1,059	-		1,059	-		1,059	911	148
244	Baker Hill Bridge - Growth-Related Principal Payments			2023-2038	1,131,156	-		1,131,156	-		1,131,156	972,794	158,362
245	Baker Hill Bridge - Growth-Related Interest Payments (Discounted)			2023-2038	1,726,655	-		1,726,655	-		1,726,655	1,484,924	241,732
	<b>Outstanding Growth-Related Credits</b>												
246	Road/Stream Crossing Hoover Pk Dr Little Rouge Creek - Project #87				1,484,187	-		1,484,187	-		1,484,187	1,276,401	207,786
247	Highway 48/Hoover Pk Dr Traffic Signals - Project #97				167,625	-		167,625	-		167,625	144,157	23,467
248	Highway 48/Sams Way Traffic Signals - Project #98				213,913	-		213,913	-		213,913	183,965	29,948
249	Highway 48/Hoover Park South Ph1 Streetlights - Project #119				87,751	-		87,751	-		87,751	75,466	12,285
250	Highway 48/Main to Hoover Ph 1 Streetlights - Project #120				40,620	-		40,620	-		40,620	34,933	5,687
251	Roundabout - Tenth Line/ Bayers Pond Way				464,409	-		464,409	-		464,409	399,392	65,017
	<b>Adjustments</b>												
252	Adjustment related to Existing Population Incline							-	7,371,069		(7,371,069)	(7,371,069)	-
253	Reserve Fund Adjustment						-	-	8,453,906		(8,453,906)	(7,270,359)	(1,183,547)
	<b>Total</b>				<b>226,100,436</b>	<b>-</b>	<b>-</b>	<b>226,100,436</b>	<b>93,485,074</b>	<b>28,000</b>	<b>132,587,362</b>	<b>112,993,182</b>	<b>19,594,180</b>





**Table 5-7**  
**Town of Whitchurch-Stouffville**  
**Infrastructure Costs Included in the Development Charge Calculation**  
**For Fire Protection Services**

Prj. No.	Increased Service Needs Attributable to Anticipated Development  2023-2051	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable	
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share  73%
<b>Fire Stations</b>										
1	Station 52 Relocation, reconstruction, and expansion	2023	15,000,000	-		15,000,000	10,214,000	3,405,000	1,381,000	1,008,130
2	Station 52 Financing Costs - NPV of Interest Payments (growth Share)	2023-2043	313,805	-		313,805	-		313,805	229,078
3	Station 51 Financing Costs (growth share) - Principal Payments	2023-2035	698,271	-		698,271	-		698,271	509,738
4	Station 51 Financing Costs (growth share) - Discounted Interest	2023-2035	143,918	-		143,918	-		143,918	105,060
5	Station 53 Lincolnville	2026-2031	11,350,000	-		11,350,000	-		11,350,000	8,285,500
6	Station 54 Bloomington	2033	11,350,000	-		11,350,000	-		11,350,000	8,285,500
7	Station 55 Ringwood	2028-2031	11,350,000	1,114,600	2,064,300	8,171,100	-		8,171,100	5,964,903
<b>Training Facility</b>										
8	Training Facility	2023-2024	250,000	-		250,000	130,400		119,600	87,308
<b>Fire Vehicles</b>										
9	100 ft Quint/Platform (growth share) Principal Payments	2023-2025	379,479	-		379,479	-		379,479	277,020
10	100 ft Quint/Platform (growth share) Discounted Interest	2023-2025	9,976	-		9,976	-		9,976	7,282
11	Fire Vehicle - Deputy Chief	2023	90,000	-		90,000	-		90,000	65,700
12	Fire Vehicle - Fire Prevention Officer (1)	2024	40,000	-		40,000	-		40,000	29,200
13	Fire Vehicle - Training Officer	2025	75,000	-		75,000	39,100		35,900	26,207
14	Additional Vehicle for Station 53 (Pumper)	2026-2031	1,100,000	-		1,100,000	-		1,100,000	803,000
15	Additional Vehicles for Station 54 (Tanker)	2033	1,050,000	-		1,050,000	-		1,050,000	766,500
16	Additional Vehicles for Station 54 (Pumper)	2033	1,100,000	-		1,100,000	-		1,100,000	803,000
17	Additional Vehicles for Station 55 (Aerial)	2028-2031	2,000,000	196,400		1,803,600	-		1,803,600	1,316,628
18	Additional Vehicles for Station 55 (Pumper)	2028-2031	1,100,000	108,000		992,000	-		992,000	724,160
<b>Fire Equipment</b>										
19	Deputy Chief (1)	2023	12,000	-		12,000	-		12,000	8,760
20	Fire Prevention Officer (1)	2024	17,000	-		17,000	-		17,000	12,410
21	Training Officer (1)	2025	12,000	-		12,000	6,300		5,700	4,161
22	Firefighters (new) for Stn. 51 & 52 (24)	2023-2030	288,000	-		288,000	-		288,000	210,240
23	Firefighters (new) for Stn. 53 (20)	2026-2031	240,000	-		240,000	-		240,000	175,200
24	Firefighters (new) for Stn. 54 (20)	2033	240,000	-		240,000	-		240,000	175,200



Table 5-7 (continued)  
Town of Whitchurch-Stouffville  
Infrastructure Costs Included in the Development Charge Calculation  
For Fire Protection Services

Prj. No.	Increased Service Needs Attributable to Anticipated Development  2023-2051	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 73%	Non-Residential Share 27%
25	Firefighters (new) for Stn. 55 (20)	2028-2031	240,000	23,600		216,400	-		216,400	157,972	58,428
	<b>Adjustments</b>										
	Adjustment related to Existing Population Incline					-	2,087,805		(2,087,805)	(2,087,805)	-
	Reserve fund adjustment		2,047,197	-		2,047,197	-		2,047,197	1,494,454	552,743
	<b>Total</b>		<b>60,496,645</b>	<b>1,442,600</b>	<b>2,064,300</b>	<b>56,989,745</b>	<b>12,477,605</b>	<b>3,405,000</b>	<b>41,107,141</b>	<b>29,444,506</b>	<b>11,662,635</b>



## **5.5.2 Wastewater Services**

GM BluePlan, through the Water and Wastewater Master Plan, has also undertaken an assessment of the needs for wastewater services within the serviced areas of the Town (i.e., including the Stouffville Serviced area, the M.Z.O. lands, and area 8 of the Whitebelt lands). The draft Master Plan included a detailed assessment of projects required to service growth to 2051 and provided the allocation of works between existing benefit, growth, and direct developer responsibility as per the local service policy. In total, the draft Master Plan provides a gross cost of \$106.45 million have been identified related to worked required to service growth. In addition to the draft Master Plan program, outstanding credits for previous work undertaken on behalf of the Town, in the amount of \$4.46 million has been added to the capital program. Further, \$1.91 million of fleet needs has been included based on the proportionate share of capital needs identified in Section 5.4.1 herein. Therefore, the total gross costs identified equate to approximately \$112.82 million.

Deductions to the gross cost have been made in relation to:

- Post period benefit (i.e., future growth) of \$621,248;
- Benefit to existing development of \$3.87 million;
- An adjustment of \$4.25 million related to the increase in needs related to the anticipated increase in existing households over the 2051 forecast period (indicated in the benefit to existing development deductions);
- The reserve fund balance of \$3.36 million, including the proportionate share of the Public Works D.C. reserve fund; and
- Direct developer requirements for the local service requirements, of \$38.65 million.

After the deduction, the total growth-related costs to be included in the D.C. calculations is approximately \$62.08 million. The capital program details can be found in Table 5-9 related to Wastewater Services (including the fleet needs as identified in Table 5-4). The growth-related costs have been allocated between residential and non-residential development based on flow requirements, which results in an 88% allocation to



**Table 5-9  
Town of Whitchurch-Stouffville  
Infrastructure Costs Included in the Development Charge Calculation  
For Wastewater Services**

Prj. No.	Master Plan Prj. No	Increased Service Needs Attributable to Anticipated Development	Project Description	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
									Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 88%	Non-Residential Share 12%
<b>2023-Urban 29 Year - Wastewater</b>													
1	WW01	Subtrunk 13 Extension	200mm sewer on Highway 48 from Norman Jones Place to Bethesda Road	2046-2051	1,064,000	-		1,064,000	1,064,000		-	-	-
2	WW02	Subtrunk 11 Extension	250/300mm sewer on future road south of Main Street to YDSS West Trunk Sewer	2026-2031	3,162,000	-		3,162,000	-	3,162,000	-	-	-
3	WW05	Subtrunk 9 Extension	375mm sewer on future road from the existing Rougeview SPS to Highway 48	2031-2035	7,422,000	-		7,422,000	-	7,422,000	-	-	-
4	WW08	Subtrunk 1 Extension (Part 1 of 6)	600mm sewer on York/Durham Line from the existing subtrunk 1 sewer north of Hoover Park Drive to Main Street	2026-2031	13,274,000	-		13,274,000	-		13,274,000	11,681,120	1,592,880
5	WW09	Subtrunk 1 Extension (Part 2 of 6)	450mm sewer on York/Durham Line from Main Street to the north limit of CamFella development	2026-2031	6,826,000	-		6,826,000	-	-	6,826,000	6,006,880	819,120
6	WW10	Subtrunk 1 Extension (Part 3 of 6)	450mm sewer on York/Durham Line from the north limit of CamFella development to Forsyth Farm Drive	2026-2031	12,515,000	-		12,515,000	-	-	12,515,000	11,013,200	1,501,800
7	WW11	Subtrunk 1 Extension (Part 4 of 6)	450mm sewer on Forsyth Farm Drive from York/Durham Line to Keeler Avenue	2026-2031	7,365,000	-		7,365,000	-	7,124,000	241,000	212,080	28,920
8	WW12	Subtrunk 1 Extension (Part 5 of 6)	450mm sewer on Keeler Avenue from Forsyth Farm Drive to the connection to subtrunk 15 on future road to the north	2026-2031	1,099,000	-		1,099,000	-	263,000	836,000	735,680	100,320
9	WW13A	Subtrunk 1 Extension (Part 6 of 6)	375mm sewer on future road east of Tenth Line from the connection to subtrunk 15 to Bethesda Road (Deep Excavation Required)	2026-2031	3,670,000	-		3,670,000	-	3,670,000	-	-	-
10	WW13B	Subtrunk 1 Extension (Part 6 of 6)	375mm sewer on future road east of Tenth Line from the connection to subtrunk 15 to Bethesda Road (Shallow Excavation Required)	2026-2031	3,463,000	-		3,463,000	-	3,463,000	-	-	-
11	WW14	Subtrunk 15 (Part 1 of 2)	300mm on future road from the connection to subtrunk 1 to the west crossing Tenth Line	2026-2031	1,209,000	-		1,209,000	-	1,209,000	-	-	-
12	WW15	Subtrunk 15 (Part 2 of 2)	300mm on future road west of Tenth Line and south of the Go Transit Railway	2026-2031	1,155,000	-		1,155,000	-	1,155,000	-	-	-
13	WW16	Subtrunk 3 Extension	300mm sewer from the existing subtrunk 3 sewer north of Greenwood Road to the north side of the Go Transit Railway	2026-2031	3,003,000	-		3,003,000	-	3,003,000	-	-	-
14	WW17	Subtrunk 18	300mm sewer on future road from Baker Hill Boulevard to Bethesda Road (Subtrunk 18)	2026-2031	4,071,000	227,000		3,844,000	-	-	3,844,000	3,382,720	461,280
15	WW18	Subtrunk 18	300mm sewer on Bethesda Road from future sewer to the west of the creek (Subtrunk 18)	2031-2036	1,306,000	91,000		1,215,000	-	-	1,215,000	1,069,200	145,800
16	WW24	Rougeview SPS Decommission	Rougeview Sanitary Pumping Station Decommission	2031-2036	450,000	-		450,000	-		450,000	396,000	54,000
17	WW29	Main Street Sewer	300mm sewer on Main Street from Mohawk Gate to York Durham Line	2031-2036	5,434,000	-		5,434,000	-	5,434,000	-	-	-
18	WW30A	Cam Fella Boulevard Sewer (Part 1 of 2)	200mm sewer on Cam Fella Boulevard to Main St	2031-2036	728,000	-		728,000	-	728,000	-	-	-
19	WW30B	Cam Fella Boulevard Sewer (Part 2 of 2)	200mm sewer on Cam Fella Boulevard to Main St	2031-2036	1,295,000	-		1,295,000	-	1,295,000	-	-	-
20	WW31	Flow Monitoring	Flow Monitoring Program (ongoing, 3 more years remaining at \$160k per year)	2023-2027	640,000	-		640,000	320,000		320,000	281,600	38,400
21	WW32	Stouffville Road Sewer Upgrade	the existing 200mm sewer along Stouffville Road to be upgraded to 300mm	2036-2041	3,078,000	-		3,078,000	-		3,078,000	2,708,640	369,360
22	WW33	Bona Land Development	375mm sewer on proposed Street A within Bona Land Development	2026-2031	2,580,000	214,000		2,366,000	-	-	2,366,000	2,082,080	283,920
23	WW34	Highway 48 Crossing	600mm sewer crossing Hwy 48 from Smartcentres to MZO1 lands	2031-2036	5,917,000	-		5,917,000	-		5,917,000	5,206,960	710,040
24	WW35	MZO1 Lands Sewer	600mm sewer of future road	2023-2026	875,000	-		875,000	-		875,000	770,000	105,000
25	WW36	MZO2 Lands Sewer	600mm sewer of future road	2031-2036	10,051,000	-		10,051,000	-		10,051,000	8,844,880	1,206,120
26	WW45	Flow Monitoring	Flow Monitoring Program (24 years; annual costs of \$200k expected)	2028-2051	4,800,000	-		4,800,000	2,400,000		2,400,000	2,112,000	288,000
<b>Timing DC Credits</b>													
27		sewermain - Project #1		2023-2027	28,514	-		28,514	-	-	28,514	25,093	3,422
28		S06 (New 375 mm diameter sewermain on Ninth Line from 240 north of Baker Hill Blvd to Baker Hill Blvd)		2023-2027	286,772	-		286,772	-	-	286,772	252,359	34,413
29		S07 (New 450/525 mm sewermain on Baker Hill Blvd north east on future road alignment (Oversizing only))		2023-2027	392,523	-		392,523	-	168,281	224,242	197,333	26,909
30		sewer		2023-2027	758,996	-		758,996	-	-	758,996	667,916	91,080
31	WW20	Subtrunk 10 Extension	450mm sewer on Ninth Line from Baker Hill Road to future road south of Bethesda Road	2023-2027	1,779,270	-		1,779,270	-		1,779,270	1,565,758	213,512



Table 5-8 (continued)  
Town of Whitchurch-Stouffville  
Infrastructure Costs Included in the Development Charge Calculation  
For Wastewater Services

Prj. No.	Master Plan Prj. No.	Increased Service Needs Attributable to Anticipated Development  2023-Urban 29 Year - Wastewater	Project Description	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
									Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 88%	Non-Residential Share 12%
32	WW21	Subtrunk 10 Extension	450mm sewer on future road south of Bethesda Road east of Ninth Line	2023-2027	481,570	89,248		392,322	-	381,219	11,103	9,770	1,332
33	WW19	Subtrunk 10 Extension	450mm sewer on Baker Hill Road from the existing subtrunk 10 sewer on Baker Hill Road to West Lawn Crescent	2023	392,523	-		392,523	-	168,281	224,242	197,333	26,909
34	WW27	Subtrunk 10 Extension	450mm sewer on Baker Hill Road - Creek Crossing	2023	335,929	-		335,929	83,982		251,947	221,713	30,234
		<b>Fleet</b>							-				
35		Wastewater Fleet	See Public Works Class of Service Project Listing	2023-2051	1,913,400	-	-	1,913,400	-		1,913,400	1,683,792	229,608
		<b>Adjustments</b>											
36		Adjustment related to Existing Population Incline						-	4,245,506		(4,245,506)	(4,245,506)	-
37		Reserve Fund Adjustment						-	3,360,801		(3,360,801)	(2,957,505)	(403,296)
		<b>Total</b>			<b>112,821,497</b>	<b>621,248</b>	<b>-</b>	<b>112,200,249</b>	<b>11,474,289</b>	<b>38,645,781</b>	<b>62,080,178</b>	<b>54,121,096</b>	<b>7,959,082</b>



Table 6-1  
Town of Whitchurch-Stouffville  
Urban Services D.C. Calculation  
Wastewater Serviced Areas  
2023-2051

SERVICE	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
1. <u>Wastewater Services</u>	\$	\$	\$	\$
1.1 Wastewater Services	54,121,096	7,959,082	5,665	2.88
<b>TOTAL</b>	<b>\$54,121,096</b>	<b>\$7,959,082</b>	<b>\$5,665</b>	<b>\$2.88</b>
D.C.-Eligible Capital Cost	\$54,121,096	\$7,959,082		
29 Year Gross Population/GFA Growth (sq.ft.)	31,194	2,761,300		
<b>Cost Per Capita/Non-Residential GFA (sq.ft.)</b>	<b>\$1,734.98</b>	<b>\$2.88</b>		
<b>By Residential Unit Type</b>	<b>P.P.U.</b>			
Single and Semi-Detached Dwelling	3.265	\$5,665		
Multiple Dwellings	2.685	\$4,658		
Apartments - 2 Bedrooms +	2.156	\$3,741		
Apartments - Bachelor and 1 Bedroom	1.477	\$2,563		
Special Care/Special Dwelling Units	1.100	\$1,908		

Table 6-2  
Town of Whitchurch-Stouffville  
Urban Services D.C. Calculation  
Water Serviced Areas  
2023-2051

SERVICE	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
2. <u>Water Services</u>	\$	\$	\$	\$
2.1 Water Services	26,767,316	3,969,219	2,780	1.42
<b>TOTAL</b>	<b>\$26,767,316</b>	<b>\$3,969,219</b>	<b>\$2,780</b>	<b>\$1.42</b>
D.C.-Eligible Capital Cost	\$26,767,316	\$3,969,219		
29 Year Gross Population/GFA Growth (sq.ft.)	31,442	2,798,800		
<b>Cost Per Capita/Non-Residential GFA (sq.ft.)</b>	<b>\$851.32</b>	<b>\$1.42</b>		
<b>By Residential Unit Type</b>	<b>P.P.U.</b>			
Single and Semi-Detached Dwelling	3.265	\$2,780		
Multiple Dwellings	2.685	\$2,286		
Apartments - 2 Bedrooms +	2.156	\$1,835		
Apartments - Bachelor and 1 Bedroom	1.477	\$1,257		
Special Care/Special Dwelling Units	1.100	\$936		



Table 6-3  
Town of Whitchurch-Stouffville  
Town-Wide Services D.C. Calculation  
2023-2051

SERVICE	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
3. <u>Services Related to a Highway</u>	\$	\$	\$	\$
3.1 Roads and Related, Fleet and Facilities	112,993,182	19,594,180	8,360	3.00
4. <u>Fire Protection Services</u>				
4.1 Fire facilities, vehicles & equipment	29,444,506	11,662,635	2,178	1.78
<b>TOTAL</b>	<b>\$142,437,687</b>	<b>\$31,256,816</b>	<b>\$10,538</b>	<b>\$4.78</b>
D.C.-Eligible Capital Cost	\$142,437,687	\$31,256,816		
29-Year Gross Population/GFA Growth (sq.ft.)	44,133	6,538,100		
<b>Cost Per Capita/Non-Residential GFA (sq.ft.)</b>	<b>\$3,227.46</b>	<b>\$4.78</b>		
<b>By Residential Unit Type</b>	<b>P.P.U.</b>			
Single and Semi-Detached Dwelling	3.265	\$10,538		
Multiple Dwellings	2.685	\$8,666		
Apartments - 2 Bedrooms +	2.156	\$6,958		
Apartments - Bachelor and 1 Bedroom	1.477	\$4,767		
Special Care/Special Dwelling Units	1.100	\$3,550		

Table 6-4  
Town of Whitchurch-Stouffville  
Town-Wide Services D.C. Calculation  
2023-2041

SERVICE	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost	
	Residential	Non-Residential	S.D.U.	per sq.ft.
5. <u>Parks and Recreation Services</u>	\$	\$	\$	\$
5.1 Park development, amenities, trails, recreation facilities, fleet and operations facilities	106,549,883	3,983,514	19,256	1.16
6. <u>Library Services</u>				
6.1 Library facilities and materials	14,494,671	762,877	2,619	0.22
<b>TOTAL</b>	<b>\$121,044,555</b>	<b>\$4,746,391</b>	<b>\$21,875</b>	<b>\$1.38</b>
D.C.-Eligible Capital Cost	\$121,044,555	\$4,746,391		
19-Year Gross Population/GFA Growth (sq.ft.)	18,067	3,428,600		
<b>Cost Per Capita/Non-Residential GFA (sq.ft.)</b>	<b>\$6,699.76</b>	<b>\$1.38</b>		
<b>By Residential Unit Type</b>	<b>P.P.U.</b>			
Single and Semi-Detached Dwelling	3.265	\$21,875		
Multiple Dwellings	2.685	\$17,989		
Apartments - 2 Bedrooms +	2.156	\$14,445		
Apartments - Bachelor and 1 Bedroom	1.477	\$9,896		
Special Care/Special Dwelling Units	1.100	\$7,370		



Table 6-6  
Town of Whitchurch-Stouffville  
Calculated Schedule of Development Charges  
by Service

Service	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Multiple Dwellings	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
<b>Town-wide Services/Class of Service:</b>						
Services Related to a Highway	8,360	6,875	5,520	3,782	2,817	3.00
Fire Protection Services	2,178	1,791	1,438	985	734	1.78
Parks and Recreation Services	19,256	15,835	12,715	8,711	6,487	1.16
Library Services	2,619	2,154	1,729	1,185	882	0.22
Provincial Offences Act including By-Law Enforcement	10	8	7	5	3	0.00
<b>Total Town-wide Services/Class of Services</b>	<b>32,423</b>	<b>26,663</b>	<b>21,409</b>	<b>14,668</b>	<b>10,923</b>	<b>6.16</b>
<b>Urban Services</b>						
Wastewater Services	5,665	4,659	3,741	2,563	1,909	2.88
Water Services	2,780	2,286	1,836	1,258	937	1.42
<b>Total Urban Services</b>	<b>8,445</b>	<b>6,945</b>	<b>5,577</b>	<b>3,821</b>	<b>2,846</b>	<b>4.30</b>
<b>GRAND TOTAL RURAL AREA</b>	<b>32,423</b>	<b>26,663</b>	<b>21,409</b>	<b>14,668</b>	<b>10,923</b>	<b>6.16</b>
<b>GRAND TOTAL URBAN AREA</b>	<b>40,868</b>	<b>33,608</b>	<b>26,986</b>	<b>18,489</b>	<b>13,769</b>	<b>10.46</b>





**Table 6-7**  
**Town of Whitchurch-Stouffville**  
**Gross Expenditure and Sources of Revenue Summary for Costs**  
**to Incurred over the 10-Year Life of the By-laws**

Service	Total Gross Cost	Sources of Financing					
		Tax Base or Other Non-D.C. Source			Post D.C. Period Benefit	D.C. Reserve Fund	
		Other Deductions	Benefit to Existing	Other Funding		Residential	Non-Residential
1. Wastewater Services							
1.1 Wastewater Services	77,929,260	0	820,000	28,503,467	471,333	42,358,325	5,776,135
2. Water Services							
2.1 Water Services	48,745,287	0	9,679,733	20,980,500	0	15,914,848	2,170,206
3. Services Related to a Highway							
3.1 Roads and Related, Fleet and Facilities	124,036,318	0	51,179,988	28,000	0	62,632,364	10,195,966
4. Fire Protection Services							
4.1 Fire facilities, vehicles & equipment	41,904,000	2,064,300	175,800	0	1,442,600	27,901,549	10,319,751
5. Parks and Recreation Services							
5.1 Park development, amenities, trails, recreation facilities, fleet and operations facilities	220,093,600	34,601,900	14,510,800	0	70,191,000	97,346,892	3,443,008
6. Library Services							
6.1 Library facilities and materials	35,269,340	10,356,340	12,126,730	0	3,538,800	8,785,097	462,374
7. Provincial Offences Act including By-Law Enforcement							
7.1 Facilities, vehicles and equipment	68,500	0	0	0	0	56,170	12,330
<b>Total Expenditures &amp; Revenues</b>	<b>\$548,046,305</b>	<b>\$47,022,540</b>	<b>\$88,493,051</b>	<b>\$49,511,967</b>	<b>\$75,643,733</b>	<b>\$254,995,243</b>	<b>\$32,379,770</b>



“Approve the capital project listing set out in Chapter 5 of the D.C. Background Study dated September 28, 2023, as amended by Addendum to the D.C. Background Study, dated November 27, 2023, subject to further annual review during the capital budget process;”

“Approve the D.C. Background Study dated September 28, 2023, as amended on November 27, 2023;”

“Determine that no further public meeting is required;” and

“Approve the D.C. By-laws as set out in Appendices G through M.



Schedule B-1  
Town of Whitchurch-Stouffville  
Summary of the Level of Service Ceiling by Services Considered

SUMMARY OF SERVICE STANDARDS AS PER DEVELOPMENT CHARGES ACT, 1997, AS AMENDED						
Service Category	Sub-Component	10 Year Average Service Standard				Maximum Ceiling LOS
		Cost (per capita)	Quantity (per capita)		Quality (per capita)	
Service Related to a Highway	Services Related to a Highway - Roads and Related	\$5,543.40	0.0026	km of roadways	\$2,132,077 per km	\$260,606,321
	Services Related to a Highway - Bridges, Culverts & Structures	\$249.00	0.0004	Number of Bridges, Culverts & Structures	\$622,500 per item	\$11,705,988
	Services Related to a Highway - Sidewalks and Active Transportation	\$316.27	0.0007	km of sidewalks and active transportation	\$451,814 per km	\$14,868,485
	Public Works - Facilities	\$444.39	0.7115	sq.ft. of building area	\$625 per sq.ft.	\$20,891,663
	Public Works - Vehicles & Equipment	\$159.18	0.0020	No. of vehicles and equipment	\$79,590 per vehicle	\$7,483,370
Fire Protection	Fire Protection Services - Facilities	\$671.37	0.6474	sq.ft. of building area	\$1,037 per sq.ft.	\$31,562,446
	Fire Protection Services - Vehicles & Equipment	\$215.70	0.0004	No. of vehicles	\$216 per vehicle	\$10,140,488
	Fire Protection Services - Small Equipment and Gear	\$21.79	0.0018	No. of equipment and gear	\$12,106 per item	\$1,024,391
Parks & Recreation	Parkland Development	\$534.74	0.0091	Acres of Parkland	\$58,763 per acre	\$9,785,207
	Parkland Amenities	\$815.06	0.1230	No. of parkland amenities	\$6,627 per amenity	\$14,914,783
	Parkland Trails and Parking Lots	\$287.29	0.7098	Linear metres of Trails/sq.m of Parks Parking Lots	\$405 per l.m/sq.m	\$5,257,120
	Recreation Facilities	\$3,983.73	5.4868	sq.ft. of building area	\$726 per sq.ft.	\$72,898,275
	Parks & Recreation Vehicles and Equipment	\$85.50	0.0012	No. of vehicles and equipment	\$71,250 per vehicle	\$1,564,565
	Parks Operations Facilities	\$309.62	0.5046	sq.ft. of building area	\$614 per sq.ft.	\$5,665,736
Library	Library Services - Facilities	\$552.32	0.4901	sq.ft. of building area	\$1,127 per sq.ft.	\$10,106,904
	Library Services - Collection Materials	\$283.99	4.0944	No. of library collection items	\$69 per collection item	\$5,196,733
Provincial Offences Act including By-law Enforcement	Provincial Offences Act including By-law Enforcement - Facilities	\$13.10	0.0153	sq.ft. of building area	\$856 per sq.ft.	\$191,732
	Provincial Offences Act including By-law Enforcement - Vehicles & Equipment	\$3.52	0.0001	No. of Vehicles and Equipment	\$70,400 per vehicle	\$51,519



Schedule B-9  
Town of Whitchurch-Stouffville  
Fire Protection Services – Small Equipment and Gear

Service: Fire Protection Services - Small Equipment and Gear  
Unit Measure: No. of equipment and gear

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/item)
<b>Fire Fighter Equipment</b>																
Station 51																
Volunteer	30	21	30	27	24	30	30	30	23	28	30	26	25	23	15	\$12,000
Full Time	7	10	15	15	16	16	16	16	16	16	16	16	16	16	16	\$12,000
Station 52																
Volunteer	18	16	17	17	15	30	30	30	22	16	14	22	22	16	11	\$12,000
Full Time	7	7	7	7	8	8	8	8	8	8	10	14	14	18	20	\$12,000
Training Officer	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	\$12,000
Fire Prevention Officers	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	\$12,000
Fire Prevention Inspector	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3	\$12,000
Fire Chief	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$12,300
Deputy Fire Chief	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$12,300
Assistant Deputy Fire Chief	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	\$12,300
<b>Total</b>	<b>65</b>	<b>57</b>	<b>73</b>	<b>71</b>	<b>69</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>75</b>	<b>74</b>	<b>76</b>	<b>85</b>	<b>84</b>	<b>80</b>	<b>69</b>	

Population	29,523	31,849	34,979	37,628	39,502	41,648	42,578	43,896	45,837	46,882	47,679	48,143	48,800	49,864	51,286
Per Capita Standard	0.0022	0.0018	0.0021	0.0019	0.0017	0.0021	0.0021	0.0020	0.0016	0.0016	0.0016	0.0018	0.0017	0.0016	0.0013

15 Year Average	2008-2022
Quantity Standard	0.0018
Quality Standard	\$12,106
Service Standard	\$22

D.C. Amount (before deductions)	29 Year
Forecast Population	47,012
\$ per Capita	\$22
Eligible Amount	\$1,024,391



## Schedule B-13 Town of Whitchurch-Stouffville Parks and Recreation Services – Recreation Facilities

Service: Recreation Facilities  
Unit Measure: sq.ft. of building area

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Recreation Complex (Stouffville Arena)	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	\$362	\$616
Silver Jubilee (Senior Centre)	6,350	6,350	6,350	6,350	6,350	6,350	6,350	6,350	6,350	-	-	-	-	-	-	\$724	\$1,015
Ballantrae Comm. Centre	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	\$517	\$562
Lemonville Comm. Centre	5,036	5,036	5,036	5,036	5,036	5,036	5,036	5,036	5,036	5,036	5,036	5,036	5,036	5,036	5,036	\$826	\$1,128
Vandorf Comm. Centre	3,650	3,650	3,650	3,650	-	-	-	-	-	-	-	-	-	-	-	\$724	\$1,015
Stouffville Pool	16,250	16,250	16,250	16,250	16,250	16,250	16,250	16,250	16,250	16,250	16,250	16,250	16,250	16,250	16,250	\$226	\$466
Lawnbowling Club House	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	\$140	\$371
Senior Centre Opportunity Club	800	800	800	-	-	-	-	-	-	-	-	-	-	-	-	\$243	\$485
Latcham Hall	5,750	5,750	5,750	5,750	5,750	5,750	5,750	5,750	5,750	5,750	5,750	5,750	5,750	5,750	5,750	\$517	\$787
Leisure Centre (Recreation Component)	24,697	24,697	24,697	24,697	24,697	24,697	24,697	24,697	24,697	24,697	24,697	24,697	24,697	24,697	24,697	\$826	\$1,128
Stouffville Clippers Sports Complex	-	-	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	\$439	\$701
Museum Visitor/Community Centre (Community Centre Space Only)	-	-	-	6,850	6,850	6,850	6,850	6,850	6,850	6,850	6,850	6,850	6,850	6,850	6,850	\$575	\$851
Arts Centre 19 on the Park (Community Space)	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	\$699	\$988
6240 Main Street	-	-	-	-	-	-	-	4,050	4,050	8,100	8,100	8,100	8,100	8,100	8,100	\$313	\$562
Ballantrae Field House	-	-	-	-	-	-	-	-	-	1,700	1,700	1,700	1,700	1,700	1,700	\$313	\$562
Balantrae Tennis Storage	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	\$313	\$562
Bethesda Sports Field House	-	-	-	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	\$313	\$562
<b>Total</b>	<b>152,153</b>	<b>152,153</b>	<b>231,153</b>	<b>240,503</b>	<b>236,853</b>	<b>236,853</b>	<b>236,853</b>	<b>240,903</b>	<b>234,553</b>	<b>240,303</b>	<b>259,303</b>	<b>259,303</b>	<b>259,303</b>	<b>259,303</b>	<b>259,303</b>		
Population	29,523	31,849	34,979	37,628	39,502	41,648	42,578	43,896	45,837	46,882	47,679	48,143	48,800	49,864	51,286		
Per Capita Standard	5.1537	4.7773	6.6083	6.3916	5.996	5.6870	5.5628	5.4880	5.1171	5.1257	5.4385	5.3861	5.3136	5.2002	5.0560		
<b>15 Year Average</b>	<b>2008-2022</b>																
Quantity Standard	5,4868																
Quality Standard	\$726																
Service Standard	\$3,984																
<b>D.C. Amount (before deductions)</b>	<b>19 Year</b>																
Forecast Population	18,299																
\$ per Capita	\$3,984																
Eligible Amount	\$72,898,275																



Asset	Lifecycle Cost Average Useful Life
Library Materials	10

Table C-1 depicts the annual operating impact resulting from the proposed gross capital projects at the time they are all in place. It is important to note that, while Town program expenditures will increase with growth in population, the costs associated with the new infrastructure (i.e., facilities) would be delayed until the time these works are in place.

**Table C-2**  
**Operating and Capital Expenditure Impacts for Future Capital Expenditures**

SERVICE	GROSS COST LESS BENEFIT TO EXISTING	ANNUAL LIFECYCLE EXPENDITURES	ANNUAL OPERATING EXPENDITURES	TOTAL ANNUAL EXPENDITURES
<b>1. Wastewater Services</b>				
1.1 Wastewater Services	101,347,207	927,540	1,062,527	1,990,067
<b>2. Water Services</b>				
2.1 Water Services	58,471,894	586,057	2,120,381	2,706,439
<b>3. Services Related to a Highway</b>				
3.1 Roads and Related, Fleet and Facilities	132,615,362	4,215,372	8,720,743	12,936,115
<b>4. Fire Protection Services</b>				
4.1 Fire facilities, vehicles & equipment	48,019,041	1,170,903	7,302,326	8,473,229
<b>5. Parks and Recreation Services</b>				
5.1 Park development, amenities, trails, recreation facilities, fleet and operations facilities	215,326,297	3,215,966	5,032,842	8,248,808
<b>6. Library Services</b>				
6.1 Library facilities and materials	38,686,149	864,717	941,993	1,806,710
<b>7. Provincial Offences Act including By-Law Enforcement</b>				
7.1 Facilities, vehicles and equipment	52,481	7,611	426,200	433,811
<b>Total</b>	<b>594,518,431</b>	<b>10,988,166</b>	<b>25,607,013</b>	<b>36,595,179</b>



- 9.2 Land Acquisition for collector roads - Dedication under the Planning Act subdivision provision (s.51) through development lands (up to 27 metre right-of-way); in areas with limited or no development, include in area municipal D.C. (to the extent eligible).
- 9.3 Land Acquisition for grade separations (beyond normal dedication requirements) - Include in the D.C. to the extent eligible.
- 9.4 Easement costs external to subdivisions shall be included in D.C. calculation.

## 10. Storm Water Management

- 10.1 Quality and Quantity Works, direct developer responsibility through local service provisions (s. 59 of D.C.A.).
- 10.2 Oversizing of stormwater management works for development external to developments will be subject to best efforts clauses by area municipality.

## 11. Water

- 11.1 Pumping stations and works associated with Zone boundaries to be included within the D.C.
- 11.2 “Watermains external to the subdivision, which are required for intensification growth or are strategic projects that benefit the growth of subdivisions, are included in the D.C. Strategic projects that benefit the growth of subdivisions may include, but is not limited to:
  - Watermains that help provide the necessary resiliency to support water servicing (looping, etc.);
  - Watermains that support intensification needs across the wider service area (increased fire flow needs; etc.); and,
  - Watermains that reduce/limit headloss and watermain velocity to enable further growth.
- 11.3 Marginal cost of waterworks within subdivision, which meet all of the following criteria are included in the D.C.:



- Provide benefit to the wider water system, including upstream/downstream developers;
- Exceed 300 mm nominal diameter;
- Exceed the local watermain size that would otherwise be required to solely service the local subdivision.

11.4 Connections to trunk mains and pumping stations to service specific areas, to be direct developer responsibility.

11.5 Watermains within Regional and Provincial Highways ROW are included in the D.C.

## 12. Wastewater

12.1 Pumping stations are included in the D.C.

12.2 Sewers external to subdivision, which are required for intensification growth or are strategic projects that benefit the growth of subdivisions, are included in the D.C. Strategic projects that benefit the growth of subdivisions may include, but is not limited to:

- Sewers sized and installed at depths to capture flows from future upstream development;
- Sewer upgrades that support intensifications needs; and,
- Complex sewer works (trenchless under watercourses, etc.) required to support the extension of the collection system to enable further growth.

12.3 Connections to trunk mains and pumping stations to service specific areas, to be direct developer responsibility.

12.4 Marginal costs of sanitary sewer works within the subdivision which meet all of the following criteria are included in the D.C.:

- Provide benefit to upstream developers;
- Exceed 375mm nominal diameter and depth of 5 meters; and
- Exceed the local sewer size and depth required to service the local subdivision.





- 12.5 Sewers within Regional and Provincial Highways ROW are included in the D.C.

### 13. Recreational Trails

- 13.1 Recreational trails (Multi-use trails and Major trails) that do not form part of the Town's active transportation network, and their associated infrastructure (landscaping, bridges, trail surface, etc.); included in the D.C.
- 13.2 Minor trails (generally located within NHS) that do not form part of the Town's active transportation network, and their associated infrastructure; direct developer responsibility as a local service provision under s. 59 of the D.C.A.

### 14. Parkland

- 14.1 Parkland Development for Town Parks, Community Parks, Neighbourhood Parks and Parkettes: responsibility to provide up to base condition is a direct developer responsibility as a local service provision under s. 59 of the D.C.A. including, but not limited to, the following:
- a) Clearing and grubbing.
  - b) Topsoil Stripping, screening, and stockpiling, (Topsoil or any fill or soils shall not be stockpiled on parkland without the approval of the Town).
  - c) Parkland shall be free of any contaminated soil or subsoil.
  - d) Servicing - Water, Hydro, Stormwater, Sanitary, Electrical, Fibre/phone, catch basins, meter, and meter boxes to a point just inside the property line as per Town requirements. This includes providing a catch basin, manhole, access boxes and meter boxes within the park property.
  - e) Rough grading (pre-grading) to allow for positive drainage of the Park, with a minimum slope of 2%. If necessary, this may include some minor drainage tile work and grading as per the overall subdivision grading design complete with any required swales or catch basins. Runoff from the development property shall not drain into the park unless approved by the Town



- f) Supply and spreading of topsoil to 200 mm depth as per Town requirements (import topsoil if existing on-site is insufficient to reach required depth).
- g) Parkland shall not be mined for engineering fill and replaced with fill or topsoil.
- h) Seeding of site with Town-approved seed mix. Maintenance of seed until acceptance by the Town.
- i) Parkland shall be conveyed free and clear of all encumbrances.
- j) When parkland parcels cannot be developed in a timely manner, they shall be graded to ensure positive drainage and seeded to minimize erosion and dust.
- k) Temporary fencing may also be required where there is no permanent fence to prevent illegal dumping.
- l) Temporary Park sign advising future residents that the site is a future park is a direct developer responsibility as a local service under s. 59 of the D.C.A.
- m) Perimeter fencing of parkland to the Town standard located on the public property side of the property line adjacent land uses (residential, industrial, commercial) as required by the Town is a direct developer responsibility as a local service under s. 59 of the D.C.A.
- n) The Park block shall not be used for topsoil or other construction material, equipment storage, or sales pavilions.
- o) Required heritage features within the park as set out within the Planning approval conditions.

14.2 Program facilities, including but limited to, sports facilities, creative play structures/equipment, shade shelters, multi-purpose courts, walkways, site furnishings, and other amenities (including associated utilities) within Parks are included in the parkland D.C.'s.

## 15. Open Space (General Open Space & Natural Open Space)

### General Open Space

15.1 General Open Space shall include golf courses, community gardens, picnic areas, open lawn areas, remnant parcels of open space lands, and



urban plazas, squares, and core spaces. These areas do not function as parks but are used for both active and passive recreational activities.

15.2 General Open Space to base condition is a direct developer responsibility as a local service provision under s. 59 of the D.C.A. and includes the following:

- a) Clearing and grubbing. Tree removals as per the subdivision's tree preservation and removals plan.
- b) Topsoil Stripping, screening, and stockpiling.
- c) Rough grading (pre-grading) to allow for positive drainage of the General Open Space, with minimum slopes of 2%. If necessary, this may include some minor drainage tile work and grading as per the overall subdivision grading design complete with any required swales or catch basins. Runoff from the development property shall not drain into the park unless approved by Town.
- d) Supply and spreading of topsoil to 200 mm depth (import topsoil if existing on-site is insufficient to reach required depth).
- e) Seeding of site with Town-approved seed mix. Maintenance of seed until acceptance by Town.
- f) General Open Space shall be free of any contaminated soil or subsoil.
- g) Parkland shall not be mined for engineering fill and replaced with fill or topsoil.
- h) General Open Space shall be conveyed free and clear of all encumbrances.
- i) Perimeter fencing of General Open Space to the Town standard located on the public property side of the property line adjacent land uses (residential, industrial, commercial) as required by the Town is a direct developer responsibility as a local service under s. 59 of the D.C.A.
- j) When General Open Space parcels cannot be developed in a timely manner, they shall be graded to ensure positive drainage and seeded to minimize erosion and dust. These shall be maintained by the developer until construction commences thereon.
- k) The General Open Space block shall not be used for topsoil or other construction material, equipment storage, or sales pavilions.



Commensurate with the above, the Town's prepared an A.M.P. in 2021 for its existing core infrastructure assets; however, it did not take into account future growth-related assets. As a result, the asset management requirement for the D.C. must be undertaken in the absence of this information.

In recognition to the schematic above, the following table (presented in 2023\$) has been developed to provide the annualized expenditures and revenues associated with new growth. Note that the D.C.A. does not require an analysis of the non-D.C. capital needs or their associated operating costs so these are omitted from the table below. As well, as all capital costs included in the D.C. eligible capital costs are not included in the Town's A.M.P., the present infrastructure gap and associated funding plan have not been considered at this time. Hence the following does not represent a fiscal impact assessment (including future tax/rate increases) but provides insight into the potential affordability of the new assets:

1. The non-D.C. recoverable portion of the projects that will require financing from municipal financial resources (i.e., rates, fees, etc.). This amount has been presented on an annual debt charge amount based on 20-year financing.
2. Lifecycle costs for the 2023 D.C. capital works have been presented based on a sinking fund basis. The assets have been considered over their estimated useful lives.
3. Incremental operating costs for the D.C. services (only) have been included.
4. The resultant total annualized expenditures are approximately \$40.36 million.
5. Consideration was given to the potential new tax and user fee revenue which will be generated as a result of new growth. These revenues will be available to assist in financing the expenditures above. The new operating revenues are \$61.48 million.
6. In consideration of the above, the capital plan is deemed to be financially sustainable.



Table F-1  
Town of Whitchurch-Stouffville  
Asset Management – Future Expenditures and Associated Revenues  
2023\$

	2051 (Total)
<b>Expenditures (Annualized)</b>	
Annual Debt Payment on Non-Growth Related Capital <sup>1</sup>	3,123,316
Annual Debt Payment on Post Period Capital <sup>2</sup>	637,255
<b>Lifecycle:</b>	
Annual Lifecycle - Municipal-wide Services	\$10,988,166
<b>Incremental Operating Costs (for D.C. Services)</b>	\$25,607,013
<b>Total Expenditures</b>	<b>\$40,355,749</b>
<b>Revenue (Annualized)</b>	
Total Existing Revenue <sup>3</sup>	\$90,417,296
Incremental Tax and Non-Tax Revenue (User Fees, Fines, Licences, etc.)	\$61,481,847
<b>Total Revenues</b>	<b>\$151,899,143</b>

<sup>1</sup> Non-Growth Related component of Projects including 10% mandatory deduction on soft services

<sup>2</sup> Interim Debt Financing for Post Period Benefit

<sup>3</sup> As per Sch. 10 of FIR



**SCHEDULE "B" TO BY-LAW  
SCHEDULE OF DEVELOPMENT CHARGES**

Town-Wide Service	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Multiple Dwellings	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
Services Related to a Highway	8,360	6,875	5,520	3,782	2,817	3.00



SCHEDULE "B" TO BY-LAW  
SCHEDULE OF DEVELOPMENT CHARGE

Town-Wide Service	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Multiple Dwellings	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
Fire Protection Services	2,178	1,791	1,438	985	734	1.78



SCHEDULE "B" TO BY-LAW  
SCHEDULE OF DEVELOPMENT CHARGE

Town-Wide Service	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Multiple Dwellings	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
Parks and Recreation Services	19,256	15,835	12,715	8,711	6,487	1.16





SCHEDULE "B" TO BY-LAW  
SCHEDULE OF DEVELOPMENT CHARGE

Town-Wide Service	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Multiple Dwellings	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
Library Services	2,619	2,154	1,729	1,185	882	0.22



SCHEDULE "B" TO BY-LAW  
SCHEDULE OF DEVELOPMENT CHARGES

Urban Serviced Areas	RESIDENTIAL					NON-RESIDENTIAL
	Single and Semi-Detached Dwelling	Multiple Dwellings	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	(per sq.ft. of Gross Floor Area)
Wastewater Services	5,665	4,659	3,741	2,563	1,909	2.88



# Appendix N

## Draft Services Related to a Highway Capital Program as per the 2023 Draft Transportation Master Plan



## Appendix N-1 Draft Capital Program – Services Related to a Highway

Item#	Source for Improvement	Road	From	To	Improvement Type	Road Class / Jurisdiction	Timing	Exist. Cross-section	Future Cross-section	Exist # of Lanes	Ultimate # of Lanes	Length / Qty	Unit s	Improvement Code	Benchmark cost (2023\$)*	Subtotal	Engineering (10%)	Contingency (10%)	Town's Project Management Cost (6%)	Property Cost	Total cost (2023\$)	Non-refundable HST (1.76%)	Total cost for DC (2023\$)	BTE%	Benefit to Existing	BTG%	Growth Related	
<b>Road Construction /</b>																												
1	WSTMP/Capital Budget	Bethesda Road	Ninth Line	York Durham Line	New Construction	Town Urban Arterial	Medium term	Rural	Urban	2	2	2.54	km	RUC RRD to URCI -110-01, 105-01	\$ 4,429,563	\$11,251,090	\$1,125,109	\$1,125,109	\$675,065		\$14,176,373	\$249,504	\$14,425,877	20%	\$2,885,175	80%	\$11,540,702	
2	WSTMP/Capital Budget	Bethesda Road	Highway 48	Ninth Line	New Construction	Town Urban Arterial	Short term	Rural	Urban	2	2	2.1	km	RUC RRD to URCI -110-01, 105-01	\$ 4,429,563	\$9,302,082	\$930,208	\$930,208	\$558,125		\$11,720,624	\$206,283	\$11,926,907	20%	\$2,385,381	80%	\$9,541,525	
3	WSTMP	Bethesda Road Extension	At Ninth Line		New Construction	Town Urban Arterial	Long term		Urban			2	0.75	km	NC URCI-105-01	\$ 4,507,697	\$3,380,773	\$338,077	\$338,077	\$202,846	\$12,150,000	\$16,409,773	\$288,812	\$16,698,585	0%	\$0	100%	\$16,698,585
4	WSTMP	New Connection	Lakeshore Road	Aurora Road	New Construction	Town Collector	Short term		Rural			2	0.60	km	NC-RRD-110-01	\$ 1,591,039	\$954,623	\$95,462	\$95,462	\$57,277		\$1,202,825	\$21,170	\$1,223,995	20%	\$244,799	80%	\$979,196
5	WSTMP	Tenth Line	Bethesda Road	Forsyth Farm Drive	New Construction	Town Urban Arterial	Short term	Rural	Urban	2	2	1.00	km	RUC RRD to URCI -110-01, 104-01	\$ 3,946,061	\$3,946,061	\$394,606	\$394,606	\$236,764		\$4,972,037	\$87,508	\$5,059,545	20%	\$1,011,909	80%	\$4,047,636	
6	WSTMP	Tenth Line (w Jog Elimination at Main Street)	Forsyth Farm Drive	Main Street	Reconstruction	Town Urban Arterial	Medium term	Urban	Urban	4	4	1.08	km	RC-URCI-105-01	\$ 4,364,887	\$4,714,078	\$471,408	\$471,408	\$282,845	\$4,698,000	\$10,637,738	\$187,224	\$10,824,962	50%	\$5,412,481	50%	\$5,412,481	
7	Capital Budget	Bethesda Road	Woodbine Avenue	Warden Avenue	Resurfacing	Town Rural Arterial	2023					2	2	2.00	km							\$2,196,109	\$38,652	\$2,234,760	50%	\$1,117,380	50%	\$1,117,380
8	Capital Budget	Main Street	Ninth Line	Stouffer Street	Reconstruction	Town Urban Arterial	2024-2027	Urban	Urban	2	2	1.60	km									\$15,200,000	\$267,520	\$15,467,520	50%	\$7,733,760	50%	\$7,733,760
9	Capital Budget	Lloyd Street	Main Street	Rose Avenue	Reconstruction	Town Urban Road	2023	Urban	Urban			0.37	km									\$4,000,000	\$70,400	\$4,070,400	50%	\$2,035,200	50%	\$2,035,200
10	Capital Budget	Edward Street	Main Street	Millard Street	Reconstruction	Town Urban Road	2024	Urban	Urban			0.68	km									\$7,560,000	\$133,056	\$7,693,056	50%	\$3,846,528	50%	\$3,846,528
<b>Multi-use pathways in boulevard</b>																												
11	WSTMP/WS ATSP/Capital Budget	Main Street	Highway 48	Ninth Line	Multi-use Pathway	Town Urban Arterial	2024-2027					2.00	km	SW_Trail-1-UR								\$573,800	\$10,099	\$583,899	50%	\$291,949	50%	\$291,949
12	WSTMP	Main Street	Park Drive	York Durham Line	Multi-use Pathway	Town Urban Arterial	Short term					1.81	km	SW_Trail-1-UR	\$ 585,879	\$1,060,441	\$106,044	\$106,044	\$63,626		\$1,336,156	\$23,516	\$1,359,672	50%	\$679,836	50%	\$679,836	
13	WSTMP	Hoover Park Drive	Park Drive	York Durham Line	Separated Cycling Facility	Town Urban Collector	Short term					2.01	km	SW_Trail-1-UR	\$ 585,879	\$1,177,617	\$117,762	\$117,762	\$70,657		\$1,483,797	\$26,115	\$1,509,912	50%	\$754,956	50%	\$754,956	
14	WSTMP	Sam's Way	Highway 48	Rougeview Avenue to the terminus	Separated Cycling Facility	Town Urban Road	Short term					0.84	km	SW_Trail-1-UR	\$ 585,879	\$492,138	\$49,214	\$49,214	\$29,528		\$620,094	\$10,914	\$631,008	50%	\$315,504	50%	\$315,504	
15	WSTMP	Rougeview Avenue	Hoover Park Drive	Sam's Way	Separated Cycling Facility	Town Urban Road	Short term					0.37	km	SW_Trail-1-UR	\$ 585,879	\$216,775	\$21,678	\$21,678	\$13,007		\$273,137	\$4,807	\$277,944	50%	\$138,972	50%	\$138,972	
16	WSTMP/WS ATSP/Capital Budget	Ninth Line	Bethesda Road	Rupert Avenue	Multi-use Pathway	Region Arterial	2025-2026					1.87	km	SW_Trail-1-UR								\$1,088,800	\$19,163	\$1,107,963	50%	\$553,981	50%	\$553,981
17	WSTMP/WS ATSP	Ninth Line	Main Street	Hoover Park Drive	Multi-use Pathway	Region Arterial	Short term					0.75	km	SW_Trail-1-UR	\$ 585,879	\$439,409	\$43,941	\$43,941	\$26,365		\$553,656	\$9,744	\$563,400	50%	\$281,700	50%	\$281,700	
18	WS TMP/Capital Budget	Highway 48	Ballantrae Road	Pine Vista Avenue	Multi-use Pathway	Provincial Highway	2023-2024					1.67	km	SW_Trail-1-UR								\$1,523,000	\$26,805	\$1,549,805	50%	\$774,902	50%	\$774,902
19	WSTMP	Highway 48	Bethesda Road	South Townline	Multi-use Pathway	Provincial Highway	Medium term					3.29	km	SW_Trail-1-UR	\$ 539,797	\$1,775,933	\$177,593	\$177,593	\$106,556		\$2,237,676	\$39,383	\$2,277,059	50%	\$1,138,530	50%	\$1,138,530	
20	WS ATSP	York Durham Line	North Limit of Urban Boundary	South Townline	Multi-use Pathway	Regional Arterial	2025-2026					3.68	km	SW_Trail-1-UR	\$ 539,797	\$1,986,454	\$198,645	\$198,645	\$119,187		\$2,502,932	\$44,052	\$2,546,984	50%	\$1,273,492	50%	\$1,273,492	
21	WSTMP	Tenth Line (East Side)	Mantle Street	South Townline	Multi-use Pathway	Town Urban Arterial	2023-2024					0.41	km	SW_Trail-1-UR	\$ 539,797	\$221,317	\$22,132	\$22,132	\$13,279		\$278,859	\$4,908	\$283,767	50%	\$141,884	50%	\$141,884	
<b>Paved Shoulders</b>																												
22	WSTMP	Bethesda Road	Highway 404	Highway 48	Rural Paved Shoulder	Town Rural Arterial	Short term					9.00	km	Rural Paved Shoulder	\$ 91,087	\$819,783	\$81,978	\$81,978	\$49,187		\$1,032,927	\$18,180	\$1,051,106	50%	\$525,553	50%	\$525,553	
23	YRTMP	Ninth Line	Bethesda Road	Aurora Road	Rural Paved Shoulder	Regional Arterial	Medium term					6.62	km	Rural Paved Shoulder	\$ 91,087	\$602,996	\$60,300	\$60,300	\$36,180		\$759,775	\$13,372	\$773,147	50%	\$386,574	50%	\$386,574	
24	WSTMP	Ninth Line	Aurora Road	Vivian Road	Rural Paved Shoulder	Regional Arterial	Short term					4.19	km	Rural Paved Shoulder	\$ 91,087	\$381,655	\$38,165	\$38,165	\$22,899		\$480,885	\$8,464	\$489,348	50%	\$244,674	50%	\$244,674	
25	WS ATSP	Tenth Line	Bethesda Sideroad	Approximately 2.2km north of Bethesda Road	Rural Paved Shoulder	Regional Arterial	Short term					2.21	km	Rural Paved Shoulder	\$ 91,087	\$201,302	\$20,130	\$20,130	\$12,078		\$253,641	\$4,464	\$258,105	50%	\$129,053	50%	\$129,053	
26	YRTMP	York Durham Line	Bloomington Road	Bethesda Sideroad	Rural Paved Shoulder	Regional Arterial	Medium term					2.3	km	Rural Paved Shoulder	\$ 91,087	\$209,500	\$20,950	\$20,950	\$12,570		\$263,970	\$4,646	\$268,616	50%	\$134,308	50%	\$134,308	
27	WS ATSP	Forsyth Farm Drive	Greenwood Road	Tenth Line	Urban Paved Shoulder	Town Urban Road	Short term					0.74	km	Urban Paved Shoulder	\$ 6,372	\$4,715	\$472	\$472	\$283		\$5,942	\$105	\$6,046	50%	\$3,023	50%	\$3,023	
28	WS ATSP	Greenwood Road	Millard Street	Forsyth Farm Drive	Urban Paved Shoulder	Town Urban Road	Short term					0.41	km	Urban Paved Shoulder	\$ 6,372	\$2,613	\$261	\$261	\$157		\$3,292	\$58	\$3,350	50%	\$1,675	50%	\$1,675	
29	WS ATSP	Millard Street	Baker Hill Boulevard	West Lawn Crescent	Urban Paved Shoulder	Town Urban Collector	Short term					1.25	km	Urban Paved Shoulder	\$ 6,372	\$7,965	\$797	\$797	\$478		\$10,036	\$177	\$10,213	50%	\$5,106	50%	\$5,106	
30	WS ATSP	Millard Street	Ninth Line	Main Street	Urban Paved Shoulder	Town Urban Collector	Short term					1.97	km	Urban Paved Shoulder	\$ 6,372	\$12,553	\$1,255	\$1,255	\$753		\$15,817	\$278	\$16,096	50%	\$8,048	50%	\$8,048	
31	WS ATSP	Mostar Street	Main Street	Hoover Park Drive	Urban Paved Shoulder	Town Urban Road	Short term					0.72	km	Urban Paved Shoulder	\$ 6,372	\$4,588	\$459	\$459	\$275		\$5,781	\$102	\$5,883	50%	\$2,941	50%	\$2,941	
32	WS ATSP	Stouffer Street	Main Street	Lori Avenue	Urban Paved Shoulder	Town Urban Road	Short term					0.58	km	Urban Paved Shoulder	\$ 6,372	\$3,696	\$370	\$370	\$222		\$4,657	\$82	\$4,739	50%	\$2,369	50%	\$2,369	
33	WS ATSP	Tenth Line	Approximately 430m south of Mantle Avenue	Community Area boundary	Urban Paved Shoulder	Town Urban Collector	Short term					0.06	km	Urban Paved Shoulder	\$ 6,372	\$382	\$38	\$38	\$23		\$482	\$8	\$490	50%	\$245	50%	\$245	
34	YRTMP	Woodbine Avenue	Davis Drive	South Townline	Rural Paved Shoulder	Regional Arterial	Medium term					16.38	km	Rural Paved Shoulder	\$ 91,087	\$1,492,005	\$149,201	\$149,201	\$89,520		\$1,879,927	\$33,087	\$1,913,014	50%	\$956,507	50%	\$956,507	
35	YRTMP	Warden Avenue	Davis Drive	South Townline	Rural Paved Shoulder	Regional Arterial	Medium term					16.5	km	Rural Paved Shoulder	\$ 91,087	\$1,502,936	\$150,294	\$150,294	\$90,176		\$1,893,699	\$33,329	\$1,927,028	50%	\$963,514	50%	\$963,514	
36	YRTMP	Kennedy Road	Davis Drive	South Townline	Rural Paved Shoulder	Regional Arterial	Medium term					16.32	km	Rural Paved Shoulder	\$ 91,087	\$1,486,540	\$148,654	\$148,654	\$89,192		\$1,873,041	\$32,966	\$1,906,006	50%	\$953,003	50%	\$953,003	
37	YRTMP	McCowan Road	Bloomington Road	Stouffville Road	Rural Paved Shoulder	Regional Arterial	Medium term					4.165	km	Rural Paved Shoulder	\$ 91,087	\$379,377	\$37,938	\$37,938	\$22,763		\$478,016	\$8,413	\$486,429	50%	\$243,214	50%	\$243,214	
38	WSTMP	Highway 48	Davis Drive	Ballantrae Road	Rural Paved Shoulder	Provincial Highway	Medium term					5.56	km	Rural Paved Shoulder	\$ 91,087	\$506,444	\$50,644	\$50,644	\$30,387		\$638,119	\$11,231	\$649,350	50%	\$324,675	50%	\$324,675	
39	WSTMP	Highway 48	Pine Vista Avenue	Bethesda Road	Rural Paved Shoulder	Provincial Highway	Medium term					5.72	km	Rural Paved Shoulder	\$ 91,087	\$521,018	\$52,102	\$52,102	\$31,261		\$656,482	\$11,554	\$668,037	50%	\$334,018	50%	\$334,018	
40	WSTMP	Bloomington Road	Highway 404	York Durham Line	Rural Paved Shoulder	Regional Arterial	Medium term					13.10	km	Rural Paved Shoulder	\$ 91,087	\$1,193,240	\$119,324	\$119,324	\$71,594		\$1,503,482	\$26,461	\$1,529,944	50%	\$764,972	50%	\$764,972	
41	YRTMP	Aurora Road	Highway 404	York Durham Line	Rural Paved Shoulder	Regional Arterial	Medium term					13.00	km	Rural Paved Shoulder	\$ 91,087	\$1,184,131	\$118,413	\$118,413	\$71,048		\$1,492,005	\$26,259	\$1,518,265	50%	\$759,132	50%	\$759,132	
42	YRTMP	Vivian Road	Highway 404	York Durham Line	Rural Paved Shoulder	Regional Arterial	Medium term					12.4	km	Rural Paved Shoulder	\$ 91,087	\$1,129,479	\$112,948	\$112,948	\$67,769		\$1,423,144	\$25,047	\$1,448,191	50%	\$724,096	50%	\$724,096	
43	YRTMP	Davis Drive	Highway 404	York-Durham Line	Rural Paved Shoulder	Regional Arterial	Medium term					12.1	km	Rural Paved Shoulder	\$ 91,087	\$1,102,153	\$110,215	\$110,215	\$66,129		\$1,388,713	\$24,441	\$1,413,154	50%	\$706,577	50%	\$706,577	



## Appendix N-1 Draft Capital Program – Services Related to a Highway

Item#	Source for Improvement	Road	From	To	Improvement Type	Road Class / Jurisdiction	Timing	Exist. Cross-section	Future Cross-section	Exist # of Lanes	Ultimate # of Lanes	Length / Qty	Units	Improvement Code	Benchmark cost (2023\$)*	Subtotal	Engineering (10%)	Contingency (10%)	Town's Project Management Cost (6%)	Property Cost	Total cost (2023\$)	Non-refundable HST (1.76%)	Total cost for DC (2023\$)	BTE%	Benefit to Existing	BTG%	Growth Related
<b>Shared Route Treatments</b>																											
45	WS ATSP	Aspen Crescent	250m north of Hemlock Drive	Hemlock Drive	Shared Route	Town Urban Road	Short term					0.25	km	Shared Route	\$ 7,455	\$1,864	\$186	\$186	\$112		\$2,348	\$41	\$2,390	50%	\$1,195	50%	\$1,195
46	WS ATSP	Bayberry Street	Pondmede Crescent	Millard Street	Shared Route	Town Urban Road	Short term					0.2	km	Shared Route	\$ 7,455	\$1,491	\$149	\$149	\$89		\$1,879	\$33	\$1,912	50%	\$956	50%	\$956
47	WS ATSP	Braith Crescent	225m south of Millard Street	150m south of Sugardale Street	Shared Route	Town Urban Road	Short term					0.09	km	Shared Route	\$ 7,455	\$671	\$67	\$67	\$40		\$845	\$15	\$860	50%	\$430	50%	\$430
48	WS ATSP	Burkholder Street / Booth Drive	O'Brien Avenue	Thicketwood Boulevard	Shared Route	Town Urban Road	Short term					0.51	km	Shared Route	\$ 7,455	\$3,802	\$380	\$380	\$228		\$4,790	\$84	\$4,875	50%	\$2,437	50%	\$2,437
49	WS ATSP	Byers Pond Way	Hoover Park Drive	30m south of Jonas Millway	Shared Route	Town Urban Road	Short term					0.46	km	Shared Route	\$ 7,455	\$3,429	\$343	\$343	\$206		\$4,321	\$76	\$4,397	50%	\$2,198	50%	\$2,198
50	WS ATSP	Edward Street	Millard Street	Main Street	Shared Route	Town Urban Road	2024					0.69	km	Shared Route	\$ 7,455	\$5,144	\$514	\$514	\$309		\$6,481	\$114	\$6,595	50%	\$3,298	50%	\$3,298
51	WS ATSP	Elm Road	Glad Park Avenue	Ninth Line	Shared Route	Town Urban Road	Short term					0.21	km	Shared Route	\$ 7,455	\$1,566	\$157	\$157	\$94		\$1,973	\$35	\$2,007	50%	\$1,004	50%	\$1,004
52	WS ATSP	Fred Silvester Road	Ken Laushway Avenue	Reeves Way Boulevard	Shared Route	Town Urban Road	Short term					0.25	km	Shared Route	\$ 7,455	\$1,864	\$186	\$186	\$112		\$2,348	\$41	\$2,390	50%	\$1,195	50%	\$1,195
53	WS ATSP	Gar Lehman Avenue	Joseph Todd	Elmer Daniels Court	Shared Route	Town Urban Road	Medium term					0.22	km	Shared Route	\$ 7,455	\$1,640	\$164	\$164	\$98		\$2,066	\$36	\$2,103	50%	\$1,051	50%	\$1,051
54	WS ATSP	Hemlock Drive	Millard Street	Tenth Line	Shared Route	Town Urban Road	Short term					0.72	km	Shared Route	\$ 7,455	\$5,367	\$537	\$537	\$322		\$6,763	\$119	\$6,882	50%	\$3,441	50%	\$3,441
55	WS ATSP	Joseph Todd	Reeves Way Boulevard	Gar Lehman Avenue	Shared Route	Town Urban Road	Medium term					0.18	km	Shared Route	\$ 7,455	\$1,342	\$134	\$134	\$81		\$1,691	\$30	\$1,721	50%	\$860	50%	\$860
56	WS ATSP	Lakeshore Road	Highway 48	Ninth Line	Shared Route	Town Urban Road	Short term					2.58	km	Shared Route	\$ 7,455	\$19,233	\$1,923	\$1,923	\$1,154		\$24,234	\$427	\$24,661	50%	\$12,330	50%	\$12,330
57	WS ATSP	Lori Avenue	Thicketwood Boulevard	Tenth Line	Shared Route	Town Urban Road	Short term					0.83	km	Shared Route	\$ 7,455	\$6,187	\$619	\$619	\$371		\$7,796	\$137	\$7,933	50%	\$3,967	50%	\$3,967
58	WS ATSP	Main Street	Ninth Line	Park Drive	Shared Route	Town Urban Arterial	Short term					1.1	km	Shared Route	\$ 7,455	\$8,200	\$820	\$820	\$492		\$10,332	\$182	\$10,514	50%	\$5,257	50%	\$5,257
59	WS ATSP	Mantle Avenue	Byers Pond Way	Tenth Line	Shared Route	Town Urban Road	Short term					0.46	km	Shared Route	\$ 7,455	\$3,429	\$343	\$343	\$206		\$4,321	\$76	\$4,397	50%	\$2,198	50%	\$2,198
60	WS ATSP	Mill Street	Frederick Street	Main Street	Shared Route	Town Urban Road	Short term					0.37	km	Shared Route	\$ 7,455	\$2,758	\$276	\$276	\$165		\$3,475	\$61	\$3,537	50%	\$1,768	50%	\$1,768
61	WS ATSP	Ninth Line	Cedarvale Boulevard	Lakeshore Road	Shared Route	Regional Arterial	Short term					1.19	km	Shared Route	\$ 7,455	\$8,871	\$887	\$887	\$532		\$11,178	\$197	\$11,375	50%	\$5,687	50%	\$5,687
62	WS ATSP	North Street	Millard Street	Tenth Line	Shared Route	Town Urban Road	Short term					0.59	km	Shared Route	\$ 7,455	\$4,398	\$440	\$440	\$264		\$5,542	\$98	\$5,639	50%	\$2,820	50%	\$2,820
63	WS ATSP	O'Brien Avenue	Main Street	100m south of Rose Avenue	Shared Route	Town Urban Road	Short term					0.45	km	Shared Route	\$ 7,455	\$3,355	\$335	\$335	\$201		\$4,227	\$74	\$4,301	50%	\$2,151	50%	\$2,151
64	WS ATSP	Park Drive	Millard Street	Main Street	Shared Route	Town Urban Collector	Short term					0.76	km	Shared Route	\$ 7,455	\$5,666	\$567	\$567	\$340		\$7,139	\$126	\$7,264	50%	\$3,632	50%	\$3,632
65	WS ATSP	Pennudtch Circle	Forsyth Farm Drive	Existing off road trail	Shared Route	Town Urban Road	Short term					0.14	km	Shared Route	\$ 7,455	\$1,044	\$104	\$104	\$63		\$1,315	\$23	\$1,338	50%	\$669	50%	\$669
66	WS ATSP	Richard Underhill Avenue	60m west of James McCullough Road	Ken Laushway Avenue	Shared Route	Town Urban Road	Short term					0.35	km	Shared Route	\$ 7,455	\$2,609	\$261	\$261	\$157		\$3,288	\$58	\$3,345	50%	\$1,673	50%	\$1,673
67	WS ATSP	Ringwood Drive	Main Street	225m south of Main Street	Shared Route	Town Urban Road	Medium term					0.23	km	Shared Route	\$ 7,455	\$1,715	\$171	\$171	\$103		\$2,160	\$38	\$2,198	50%	\$1,099	50%	\$1,099
68	WS ATSP	Sandale Road / Sandiford Drive	55m north of Elm Road	Hoover Park Drive	Shared Route	Town Urban Road	Short term					1.3	km	Shared Route	\$ 7,455	\$9,691	\$969	\$969	\$581		\$12,211	\$215	\$12,426	50%	\$6,213	50%	\$6,213
69	WS ATSP	Sunnyridge Avenue	Hoover Park Drive	30m south of Filbert Court	Shared Route	Town Urban Road	Short term					0.5	km	Shared Route	\$ 7,455	\$3,727	\$373	\$373	\$224		\$4,697	\$83	\$4,779	50%	\$2,390	50%	\$2,390
70	WS ATSP	Tenth Line	Main Street	Katherine Crescent	Shared Route	Town Urban Collector	Short term					0.39	km	Shared Route	\$ 7,455	\$2,907	\$291	\$291	\$174		\$3,663	\$64	\$3,728	50%	\$1,864	50%	\$1,864
71	WS ATSP	Thicketwood Boulevard	Hoover Park Drive	Stouffer Street	Shared Route	Town Urban Road	Short term					0.91	km	Shared Route	\$ 7,455	\$6,784	\$678	\$678	\$407		\$8,548	\$150	\$8,698	50%	\$4,349	50%	\$4,349
72	WS ATSP	Waite Crescent	150m south of Sugardale Street	225m south of Millard Street	Shared Route	Town Urban Road	Short term					0.06	km	Shared Route	\$ 7,455	\$447	\$45	\$45	\$27		\$574	\$10	\$584	50%	\$287	50%	\$287
73	WS ATSP	West Lawn Crescent	Millard Street	Rupert Avenue	Shared Route	Town Urban Road	Short term					0.52	km	Shared Route	\$ 7,455	\$3,876	\$388	\$388	\$233		\$4,884	\$86	\$4,970	50%	\$2,485	50%	\$2,485
74	WS ATSP	West Lawn Crescent	Development Limit	Millard Street	Shared Route	Town Urban Road	Short term					0.34	km	Shared Route	\$ 7,455	\$2,535	\$253	\$253	\$152		\$3,194	\$56	\$3,250	50%	\$1,625	50%	\$1,625
75	WS ATSP	Westwind Crescent	Millard Street	Winlane Drive	Shared Route	Town Urban Road	Short term					0.24	km	Shared Route	\$ 7,455	\$1,789	\$179	\$179	\$107		\$2,254	\$40	\$2,294	50%	\$1,147	50%	\$1,147
76	WS ATSP	Wheeler Crescent / Jacob Way	Lori Avenue	Hoover Park Drive	Shared Route	Town Urban Road	Short term					0.2	km	Shared Route	\$ 7,455	\$1,491	\$149	\$149	\$89		\$1,879	\$33	\$1,912	50%	\$956	50%	\$956
77	WS ATSP	Baker Hill Boulevard Extension	Millard Street	Ninth Line	Shared Route	Town Urban Collector	Short term					2.16	km	Shared Route	\$ 7,455	\$16,102	\$1,610	\$1,610	\$966		\$20,289	\$357	\$20,646	50%	\$10,323	50%	\$10,323
78	WS ATSP	Forsyth Farm Drive Extension	Tenth Line	York / Durham Line	Shared Route	Town Urban Road	Short term					0.64	km	Shared Route	\$ 7,455	\$4,771	\$477	\$477	\$286		\$6,012	\$106	\$6,117	50%	\$3,059	50%	\$3,059
79	WS ATSP	Baker Hill Boulevard	Millard Street	Main Street	Shared Route	Town Urban Collector	Short term					0.53	km	Shared Route	\$ 7,455	\$3,951	\$395	\$395	\$237		\$4,978	\$88	\$5,066	50%	\$2,533	50%	\$2,533
80	WS ATSP	Bartsvie Circle	80m west of Bigelow Road	75m east of Bigelow Road	Shared Route	Town Urban Road	Short term					0.16	km	Shared Route	\$ 7,455	\$1,193	\$119	\$119	\$72		\$1,503	\$26	\$1,529	50%	\$765	50%	\$765
81	WS ATSP	Blake Street / Burkholder Street	Main Street	O'Brien Avenue	Shared Route	Town Urban Road	Short term					0.45	km	Shared Route	\$ 7,455	\$3,355	\$335	\$335	\$201		\$4,227	\$74	\$4,301	50%	\$2,151	50%	\$2,151
82	WS ATSP	Cedarvale Boulevard	Ninth Line	Cedarvale Boulevard Terminus	Shared Route	Town Urban Road	2023					0.51	km	Shared Route	\$ 7,455	\$3,802	\$380	\$380	\$228		\$4,790	\$84	\$4,875	50%	\$2,437	50%	\$2,437
83	WS ATSP	Connor Drive	Cedarvale Boulevard Terminus	Lakeshore Road	Shared Route	Town Urban Road	Short term					0.44	km	Shared Route	\$ 7,455	\$3,280	\$328	\$328	\$197		\$4,133	\$73	\$4,206	50%	\$2,103	50%	\$2,103
84	WS ATSP	Glad Park Avenue	West Lawn Crescent	Development Boundary	Shared Route	Town Urban Road	Short term					0.95	km	Shared Route	\$ 7,455	\$7,082	\$708	\$708	\$425		\$8,923	\$157	\$9,080	50%	\$4,540	50%	\$4,540
85	WS ATSP	Hillsdale Drive	Hillsdale Drive (approximately 90m west of region line)	York / Durham Line	Shared Route	Town Rural Road	Short term					0.09	km	Shared Route	\$ 7,455	\$671	\$67	\$67	\$40		\$845	\$15	\$860	50%	\$430	50%	\$430
86	WS ATSP	Hillsdale Drive	Ninth Line	Hillsdale Road terminus	Shared Route	Town Rural Road	Short term					1.1	km	Shared Route	\$ 7,455	\$8,200	\$820	\$820	\$492		\$10,332	\$182	\$10,514	50%	\$5,257	50%	\$5,257
87	WS ATSP	Innovator Avenue	Sandiford Drive	Mostar Street	Shared Route	Town Urban Road	Short term					0.36	km	Shared Route	\$ 7,455	\$2,684	\$268	\$268	\$161		\$3,381	\$60	\$3,441	50%	\$1,721	50%	\$1,721
88	WS ATSP	John Davis Gate	West Lawn Crescent	Ninth Line	Shared Route	Town Urban Road	Short term					0.48	km	Shared Route	\$ 7,455	\$3,578	\$358	\$358	\$215		\$4,509	\$79	\$4,588	50%	\$2,294	50%	\$2,294
89	WS ATSP	Market Street	Main Street	Burkholder Street	Shared Route	Town Urban Road	Short term					0.25	km	Shared Route	\$ 7,455	\$1,864	\$186	\$186	\$112		\$2,348	\$41	\$2,390	50%	\$1,195	50%	\$1,195
90	WS ATSP	Millrose Crescent	80m north of Cossey Lane	125m east of Greenhouse Lane	Shared Route	Town Urban Road	Short term					0.57	km	Shared Route	\$ 7,455	\$4,249	\$425	\$425	\$255		\$5,354	\$94	\$5,448	50%	\$2,724	50%	\$2,724
91	WS ATSP	Mostar Street	Main Street	Hoover Park Drive	Shared Route	Town Urban Road	Short term					0.73	km	Shared Route	\$ 7,455	\$5,442	\$544	\$544	\$327		\$6,857	\$121	\$6,978	50%	\$3,489	50%	\$3,489
92	WS ATSP	Palmwood Gate	Rupert Avenue	Main Street	Shared Route	Town Urban Road	Short term					0.18	km	Shared Route	\$ 7,455	\$1,342	\$134	\$134	\$81		\$1,691	\$30	\$1,721	50%	\$860	50%	\$860
93	WS ATSP	Pondmede Crescent	125m west of Bayberry Street	Bayberry Street	Shared Route	Town Urban Road	Short term					0.12	km	Shared Route	\$												



## Appendix N-1 Draft Capital Program – Services Related to a Highway

Item#	Source for Improvement	Road	From	To	Improvement Type	Road Class / Jurisdiction	Timing	Exist. Cross-section	Future Cross-section	Exist # of Lanes	Ultimate # of Lanes	Length / Qty	Units	Improvement Code	Benchmark cost (2023\$)*	Subtotal	Engineering (10%)	Contingency (10%)	Town's Project Management Cost (6%)	Property Cost	Total cost (2023\$)	Non-refundable HST (1.76%)	Total cost for DC (2023\$)	BTE%	Benefit to Existing	BTG%	Growth Related
		<b>Off-Road Multi-Use Trails</b>																									
100	WS ATSP	Greenwood Parkette Multi-Use Trail	Greenwood Road	Existing hiking trail in Greenwood Parkette	Off-Road MUP		Medium term					0.18	km	Off-Road MUP	\$ 565,500	\$101,790	\$10,179	\$10,179	\$6,107		\$128,255	\$2,257	\$130,513	50%	\$65,256	50%	\$65,256
101	WS ATSP	Memorial Park Off Road trail	O'Brien Avenue terminus	Hoover Park Drive	Off-Road MUP		Short term					0.26	km	Off-Road MUP	\$ 565,500	\$147,030	\$14,703	\$14,703	\$8,822		\$185,258	\$3,261	\$188,518	50%	\$94,259	50%	\$94,259
102	WS ATSP	Memorial Park Off Road Trail	Park Drive	Existing off road trail	Off-Road MUP		Short term					0.2	km	Off-Road MUP	\$ 565,500	\$113,100	\$11,310	\$11,310	\$6,786		\$142,506	\$2,508	\$145,014	50%	\$72,507	50%	\$72,507
103	WS ATSP	Off Road Trail	Connor Drive Terminus	Cedarvale Boulevard Terminus	Off-Road MUP		Short term					0.04	km	Off-Road MUP	\$ 565,500	\$22,620	\$2,262	\$2,262	\$1,357		\$28,501	\$502	\$29,003	50%	\$14,501	50%	\$14,501
104	WS ATSP	Off Road Trail at 138 Sandford Drive	Sandford Drive	Existing hiking trail	Off-Road MUP		Short term					0.21	km	Off-Road MUP	\$ 565,500	\$118,755	\$11,876	\$11,876	\$7,125		\$149,631	\$2,634	\$152,265	50%	\$76,132	50%	\$76,132
105	WS ATSP	Off Road trail at Gar Lehman Avenue terminus	Development Area	Existing off road trail	Off-Road MUP		Medium term					0.15	km	Off-Road MUP	\$ 565,500	\$84,825	\$8,483	\$8,483	\$5,090		\$106,880	\$1,881	\$108,761	50%	\$54,380	50%	\$54,380
106	WS ATSP	Off Road Trail at Gar Lehman Avenue	Existing off road trail	Gar Lehman Avenue	Off-Road MUP		Medium term					0.04	km	Off-Road MUP	\$ 565,500	\$22,620	\$2,262	\$2,262	\$1,357		\$28,501	\$502	\$29,003	50%	\$14,501	50%	\$14,501
107	WS ATSP	Off Road Trail east of Baker Hill Boulevard	Main Street	Approximately 540m north of Main Street	Off-Road MUP		Medium term					0.54	km	Off-Road MUP	\$ 565,500	\$305,370	\$30,537	\$30,537	\$18,322		\$384,766	\$6,772	\$391,538	50%	\$195,769	50%	\$195,769
108	WS ATSP	Off Road Trail from Ringwood Drive	Ringwood Drive	Existing hiking trail	Off-Road MUP		Medium term					0.51	km	Off-Road MUP	\$ 565,500	\$288,405	\$28,841	\$28,841	\$17,304		\$363,390	\$6,396	\$369,786	50%	\$184,893	50%	\$184,893
109	WS ATSP	Off Road Trail through forest south of Hoover Park	Ninth Line	Existing off trail parallel railway	Off-Road MUP		Medium term					0.38	km	Off-Road MUP	\$ 565,500	\$214,890	\$21,489	\$21,489	\$12,893		\$270,761	\$4,765	\$275,527	50%	\$137,763	50%	\$137,763
110	WS ATSP	Off-Road trail at terminus of Hillsdale Road	Hillsdale Road terminus	Hillsdale Road (approximately 720m east)	Off-Road MUP		Short term					0.72	km	Off-Road MUP	\$ 565,500	\$407,160	\$40,716	\$40,716	\$24,430		\$513,022	\$9,029	\$522,051	50%	\$261,025	50%	\$261,025
111	WS ATSP	Proposed Off Road Trail in Duffins Creek	Existing off road trail in Duffins Creek	Main Street	Off-Road MUP		Short term					0.56	km	Off-Road MUP	\$ 565,500	\$316,680	\$31,668	\$31,668	\$19,001		\$399,017	\$7,023	\$406,039	50%	\$203,020	50%	\$203,020
112	WS ATSP	Off-Road Multi-Use Trails in Development Area			Off-Road MUP		Long Term					11.32	km	Off-Road MUP	\$ 565,500	\$6,401,460	\$640,146	\$640,146	\$384,088		\$8,065,840	\$141,959	\$8,207,798	50%	\$4,103,899	50%	\$4,103,899
113	Capital Budget	Asphalt Off Road Trail-SW Quadrant to Ninth Line			Off-Road MUP		2025							Off-Road MUP							\$87,272	\$1,536	\$88,808	50%	\$44,404	50%	\$44,404
114	Capital Budget	Off Road Trail in Memorial Park - Park Drive to Lori Avenue Path			Off-Road MUP		2026							Off-Road MUP							\$27,499	\$484	\$27,983	50%	\$13,991	50%	\$13,991
115	Capital Budget	Asphalt Off Road Trail-Bethesda Park Connection			Off-Road MUP		2025							Off-Road MUP							\$33,143	\$583	\$33,726	50%	\$16,863	50%	\$16,863
116	Capital Budget	Asphalt Off Road Trail-Stouffville Arena Field			Off-Road MUP		2026							Off-Road MUP							\$32,275	\$568	\$32,843	50%	\$16,421	50%	\$16,421
117	Capital Budget	Asphalt Off Road Trail-Ringwood Pond Connection			Off-Road MUP		2024							Off-Road MUP							\$33,143	\$583	\$33,726	50%	\$16,863	50%	\$16,863
118	Capital Budget	Asphalt Off Road Trail-Stouffville Cres.-Main to North of Mill Street (up to Stouffville Reservoir)			Off-Road MUP		2026							Off-Road MUP							\$54,563	\$960	\$55,523	50%	\$27,762	50%	\$27,762
		<b>Off-Road Hiking Trail</b>																									
119	WS ATSP	Stouffville Reservoir Trail Connection	Stouffville Reservoir Trail	Proposed development	Off-Road Hiking Trail		Medium term					0.18	km	Off-Road Hiking Trail	\$ 191,168	\$34,410	\$3,441	\$3,441	\$2,065		\$43,357	\$763	\$44,120	50%	\$22,060	50%	\$22,060
		<b>Naturalized Trails</b>																									
120	Trails MP	Off-Road trails (Unbuilt - Stouffville Trails Master Plan)			Naturalized Trail		Short term					1	km	Naturalized Trail	\$ 213,224	\$213,224	\$21,322	\$21,322	\$12,793		\$268,662	\$4,728	\$273,390	50%	\$136,695	50%	\$136,695
121	Trails MP	Off-Road trails (Unbuilt - Ballantrae Secondary Plan)			Naturalized Trail		Short term					10.1	km	Naturalized Trail	\$ 213,224	\$2,153,560	\$215,356	\$215,356	\$129,214		\$2,713,486	\$47,757	\$2,761,244	50%	\$1,380,622	50%	\$1,380,622
122	Capital Budget	McCowan Road	Faulkner Avenue	200m south of Cherry Street	Naturalized Trail		2030					0.3	km	Naturalized Trail							\$74,391	\$1,309	\$75,700	50%	\$37,850	50%	\$37,850
123	Capital Budget	Naturalized Off Road Trails-Hoover Park Drive Woodlot E			Naturalized Trail		2027							Naturalized Trail							\$30,827	\$543	\$31,370	50%	\$15,685	50%	\$15,685
124	Capital Budget	Naturalized Off Road Trail-Hoover Park Drive Woodlot W			Naturalized Trail		2027							Naturalized Trail							\$28,946	\$509	\$29,455	50%	\$14,728	50%	\$14,728
		<b>Illumination</b>																									
125	Capital Budget	Highway 48	Ballantrae Road	Pine Vista Avenue	Streetlights	Provincial Highway	2023-2024					1.7	km	Illumination	\$ 492,554	\$822,565	\$82,256	\$82,256	\$49,354		\$1,036,432	\$18,241	\$1,054,673	90%	\$949,206	10%	\$105,467
126	Capital Budget	Highway 48	Bethesda Road	Main Street	Streetlights	Provincial Highway	2025					1.7	km	Illumination							\$527,100	\$9,277	\$536,377	0%	\$0	100%	\$536,377
127	Capital Budget	Ninth Line	S limit of Hamlet of Bloomington	N limit of Hamlet of Bloomington	Streetlights	Regional Arterial	2025					0.6	km	Illumination	\$ 492,554	\$295,532	\$29,553	\$29,553	\$17,732		\$372,371	\$6,554	\$378,924	90%	\$341,032	10%	\$37,892
128	Capital Budget	Ninth Line	S limit existing Musselman Lake	N limit existing Musselman Lake	Streetlights	Regional Arterial	2024-2025					1.5	km	Illumination	\$ 492,554	\$738,831	\$73,883	\$73,883	\$44,330		\$930,927	\$16,384	\$947,311	90%	\$852,580	10%	\$94,731
129	Capital Budget	Tenth Line	Main Street	Bethesda Road N.	Streetlights	Town Urban Arterial	2025-2026					2.0	km	Illumination	\$ 492,554	\$985,108	\$98,511	\$98,511	\$59,106		\$1,241,236	\$21,846	\$1,263,081	0%	\$0	100%	\$1,263,081
130	WSTMP	Tenth Line	Mantle Street	South Townline	Streetlights	Town Urban Arterial	2023-2024					0.4	km	Illumination	\$ 492,554	\$201,947	\$20,195	\$20,195	\$12,117		\$254,453	\$4,478	\$258,932	0%	\$0	100%	\$258,932
131	Capital Budget	York-Durham Line	South Townline	N Limit of Development (Stouffville)	Streetlights	Regional Arterial	2025-2026					3.0	km	Illumination	\$ 492,554	\$1,477,661	\$147,766	\$147,766	\$88,660		\$1,861,853	\$32,769	\$1,894,622	0%	\$0	100%	\$1,894,622
132	WSTMP	Aurora Road	Grayfield Drive	Ballantrae School	Streetlights	Regional Arterial	Short term					2.4	km	Illumination	\$ 492,554	\$1,182,129	\$118,213	\$118,213	\$70,928		\$1,489,483	\$26,215	\$1,515,698	90%	\$1,364,128	10%	\$151,570
133	WS DC/Capital Budget	Bloomington Road	W limit of Hamlet of Bloomington	E limit of Hamlet of Bloomington	Streetlights	Regional Arterial	2025					1.0	km	Illumination	\$ 492,554	\$492,554	\$49,255	\$49,255	\$29,553		\$620,618	\$10,923	\$631,541	90%	\$568,387	10%	\$63,154
134	Capital Budget	LED Streetlight Conversion Project			Streetlights	Town	2024							Illumination							\$450,000	\$7,920	\$457,920	50%	\$228,960	50%	\$228,960



## Appendix N-1 Draft Capital Program – Services Related to a Highway

Item#	Source for Improvement	Road	From	To	Improvement Type	Road Class / Jurisdiction	Timing	Exist. Cross-section	Future Cross-section	Exist # of Lanes	Ultimate # of Lanes	Length / Qty	Units	Improvement Code	Benchmark cost (2023\$)*	Subtotal	Engineering (10%)	Contingency (10%)	Town's Project Management Cost (6%)	Property Cost	Total cost (2023\$)	Non-refundable HST (1.76%)	Total cost for DC (2023\$)	BTE%	Benefit to Existing	BTG%	Growth Related
		<b>Sidewalks (both sides unless indicated)</b>																									
135	WS ATSP	Aintree Drive	Tenth Line	Cam Fella Boulevard	1.8m sidewalk -2 sides	Town Urban Road	Medium term					0.5	km	Sidewalk-2-1.8	\$ 655,452	\$327,726	\$32,773	\$32,773	\$19,664		\$412,935	\$7,268	\$420,202	90%	\$378,182	10%	\$42,020
136	WS ATSP	Asbury Park Court	Aintree Drive	End of Asbury Park Court	1.8m sidewalk -2 sides	Town Urban Road	Medium term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$117,981	\$11,798	\$11,798	\$7,079		\$148,657	\$2,616	\$151,273	90%	\$136,146	10%	\$15,127
137	WS ATSP	Aspen Crescent	Hemlock Drive	Hemlock Drive	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.6	km	Sidewalk-2-1.8	\$ 655,452	\$380,162	\$38,016	\$38,016	\$22,810		\$479,004	\$8,430	\$487,435	90%	\$438,691	10%	\$48,743
138	WS ATSP	Baker Street	Willoway	Manitoba Street	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$78,654	\$7,865	\$7,865	\$4,719		\$99,104	\$1,744	\$100,849	90%	\$90,764	10%	\$10,085
139	WS ATSP	Basswood Court	Millard Street	Millard Street	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$72,100	\$7,210	\$7,210	\$4,326		\$90,846	\$1,599	\$92,445	90%	\$83,200	10%	\$9,244
140	WS ATSP	Bernick Crescent	Lori Avenue	Lori Avenue	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.3	km	Sidewalk-2-1.8	\$ 655,452	\$196,636	\$19,664	\$19,664	\$11,798		\$247,761	\$4,361	\$252,121	90%	\$226,909	10%	\$25,212
141	WS ATSP	Blair Road	Stouffer Street	Dorman Drive	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.3	km	Sidewalk-2-1.8	\$ 655,452	\$196,636	\$19,664	\$19,664	\$11,798		\$247,761	\$4,361	\$252,121	90%	\$226,909	10%	\$25,212
142	WS ATSP	Booth Drive	Thicketwood Boulevard	Thicketwood Boulevard	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.5	km	Sidewalk-2-1.8	\$ 655,452	\$314,617	\$31,462	\$31,462	\$18,877		\$396,417	\$6,977	\$403,394	90%	\$363,055	10%	\$40,339
143	WS ATSP	Boyer Street	Montreal Street	Tenth Line	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.3	km	Sidewalk-2-1.8	\$ 655,452	\$176,972	\$17,697	\$17,697	\$10,618		\$222,985	\$3,925	\$226,909	90%	\$204,218	10%	\$22,691
144	WS ATSP	Bramble Crescent	Millard Street	Millard Street	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.4	km	Sidewalk-2-1.8	\$ 655,452	\$281,844	\$28,184	\$28,184	\$16,911		\$355,124	\$6,250	\$361,374	90%	\$325,237	10%	\$36,137
145	WS ATSP	Burkholder Street	Rose Avenue	Franklin Street	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.3	km	Sidewalk-2-1.8	\$ 655,452	\$203,190	\$20,319	\$20,319	\$12,191		\$256,020	\$4,506	\$260,525	90%	\$234,473	10%	\$26,053
146	WS ATSP	Cam Fella Boulevard	End of Cam Fella Boulevard	End of Cam Fella Boulevard	1.8m sidewalk -2 sides	Town Urban Road	Medium term					1.2	km	Sidewalk-2-1.8	\$ 655,452	\$786,542	\$78,654	\$78,654	\$47,193		\$991,043	\$17,442	\$1,008,486	90%	\$907,637	10%	\$100,849
147	WS ATSP	Cemetery Lane	Main Street	90m South of Main Street	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$58,991	\$5,899	\$5,899	\$3,539		\$74,328	\$1,308	\$75,636	90%	\$68,073	10%	\$7,564
148	WS ATSP	Charles Street	Harold Avenue	Second Street	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$124,536	\$12,454	\$12,454	\$7,472		\$156,915	\$2,762	\$159,677	90%	\$143,709	10%	\$15,968
149	WS ATSP	Chessman Court	Willoway	End of Chessman Court	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$52,436	\$5,244	\$5,244	\$3,146		\$66,070	\$1,163	\$67,232	90%	\$60,509	10%	\$6,723
150	WS ATSP	Deborah Place	160m South of Hemlock Drive	Hemlock Drive	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$104,872	\$10,487	\$10,487	\$6,292		\$132,139	\$2,326	\$134,465	90%	\$121,018	10%	\$13,446
151	WS ATSP	Dorman Drive	Stouffer Street	Blair Road	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.6	km	Sidewalk-2-1.8	\$ 655,452	\$386,717	\$38,672	\$38,672	\$23,203		\$487,263	\$8,576	\$495,839	90%	\$446,255	10%	\$49,584
152	WS ATSP	Elmer Daniels Court	Gar Lehman Avenue	End of Elmer Daniels Court	1.8m sidewalk -2 sides	Town Urban Road	Medium term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$65,545	\$6,555	\$6,555	\$3,933		\$82,587	\$1,454	\$84,040	90%	\$75,636	10%	\$8,404
153	WS ATSP	Fairview Avenue	Elm Road	Rupert Avenue	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$144,199	\$14,420	\$14,420	\$8,652		\$181,691	\$3,198	\$184,889	90%	\$166,400	10%	\$18,489
154	WS ATSP	Flint Crescent	Lori Avenue	Lori Avenue	1.8m sidewalk -2 sides	Town Urban Road	Medium term					0.3	km	Sidewalk-2-1.8	\$ 655,452	\$190,081	\$19,008	\$19,008	\$11,405		\$239,502	\$4,215	\$243,717	90%	\$219,346	10%	\$24,372
155	WS ATSP	Gabrielle Mews	Hemlock Drive	Hemlock Drive	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$72,100	\$7,210	\$7,210	\$4,326		\$90,846	\$1,599	\$92,445	90%	\$83,200	10%	\$9,244
156	WS ATSP	Geoffrey Crescent	Hemlock Drive	Hemlock Drive	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.7	km	Sidewalk-2-1.8	\$ 655,452	\$432,598	\$43,260	\$43,260	\$25,958		\$545,074	\$9,593	\$554,667	90%	\$499,200	10%	\$55,467
157	WS ATSP	Gleggall Lane	Elm Road	Rupert Avenue	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$137,645	\$13,764	\$13,764	\$8,259		\$173,433	\$3,052	\$176,485	90%	\$158,837	10%	\$17,649
158	WS ATSP	Harding Gate	Main Street	Loretta Crescent	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$58,991	\$5,899	\$5,899	\$3,539		\$74,328	\$1,308	\$75,636	90%	\$68,073	10%	\$7,564
159	WS ATSP	Hazelnut Place	Hemlock Drive	Hemlock Drive	1.8m sidewalk -2 sides	Town Urban Road	Medium term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$98,318	\$9,832	\$9,832	\$5,899		\$123,880	\$2,180	\$126,060	90%	\$113,455	10%	\$12,606
160	WS ATSP/Capital Budget/WS DC	Highway 48	Sam's Way	Millard Street	1.8m sidewalk -2 sides	Provincial Highway	Short term					1.7	km	Sidewalk-2-1.8	\$ 655,452	\$1,114,268	\$111,427	\$111,427	\$66,856		\$1,403,978	\$24,710	\$1,428,688	10%	\$142,869	90%	\$1,285,819
161	WS ATSP	Ironwood Crescent	Millard Street	Millard Street	1.8m sidewalk -2 sides	Town Urban Road	2024					0.5	km	Sidewalk-2-1.8	\$ 655,452	\$301,508	\$30,151	\$30,151	\$18,090		\$379,900	\$6,686	\$386,586	90%	\$347,928	10%	\$38,659
162	WS ATSP	Ivy Crescent	Hemlock Drive	Hemlock Drive	1.8m sidewalk -2 sides	Town Urban Road	Medium term					0.4	km	Sidewalk-2-1.8	\$ 655,452	\$275,290	\$27,529	\$27,529	\$16,517		\$346,865	\$6,105	\$352,970	90%	\$317,673	10%	\$35,297
163	WS ATSP	Katherine Crescent	Tenth Line	Tenth Line	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.5	km	Sidewalk-2-1.8	\$ 655,452	\$308,062	\$30,806	\$30,806	\$18,484		\$388,159	\$6,832	\$394,990	90%	\$355,491	10%	\$39,499
164	WS ATSP	Linden Lane	130m North of Millard Street	Millard Street	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$85,209	\$8,521	\$8,521	\$5,113		\$107,363	\$1,890	\$109,253	90%	\$98,327	10%	\$10,925
165	WS ATSP	Loretta Crescent	York/Durham Line	Easter Gate Crescent	1.8m sidewalk -2 sides	Town Urban Road	Short term					1.1	km	Sidewalk-2-1.8	\$ 655,452	\$720,997	\$72,100	\$72,100	\$43,260		\$908,456	\$15,989	\$924,445	90%	\$832,001	10%	\$92,445
166	WS ATSP	Main Street	Eastern Gate Crescent	York/Durham Line	1.8m sidewalk -2 sides	Town Urban Arterial	Medium term					0.4	km	Sidewalk-2-1.8	\$ 655,452	\$262,181	\$26,218	\$26,218	\$15,731		\$330,348	\$5,814	\$336,162	90%	\$302,546	10%	\$33,616
167	WS ATSP	Main Street	Eastern Gate Crescent	Eastern Gate Crescent	1.8m sidewalk -2 sides	Town Urban Arterial	Medium term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$91,763	\$9,176	\$9,176	\$5,506		\$115,622	\$2,035	\$117,657	90%	\$105,891	10%	\$11,766
168	WS ATSP	Maurovisia Court	North of Olive's Gate	South of Olive's Gate	1.8m sidewalk -2 sides	Town Urban Road	Medium term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$104,872	\$10,487	\$10,487	\$6,292		\$132,139	\$2,326	\$134,465	90%	\$121,018	10%	\$13,446
169	WS ATSP	Maystone Court	Gleggall Lane	End of Maystone Court	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$104,872	\$10,487	\$10,487	\$6,292		\$132,139	\$2,326	\$134,465	90%	\$121,018	10%	\$13,446
170	WS ATSP	Millard Street	Stouffer Street	Main Street	1.8m sidewalk -2 sides	Town Urban Collector	Short term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$117,981	\$11,798	\$11,798	\$7,079		\$148,657	\$2,616	\$151,273	90%	\$136,146	10%	\$15,127
171	WS ATSP	Millard Street	Bramble Crescent	Park Drive	1.8m sidewalk -2 sides	Town Urban Collector	Short term					0.7	km	Sidewalk-2-1.8	\$ 655,452	\$439,153	\$43,915	\$43,915	\$26,349		\$553,333	\$9,739	\$563,071	90%	\$506,764	10%	\$56,307
172	WS ATSP	Millard Street	Ninth Line	Bramble Crescent	1.8m sidewalk -2 sides	Town Urban Collector	Short term					0.3	km	Sidewalk-2-1.8	\$ 655,452	\$203,190	\$20,319	\$20,319	\$12,191		\$256,020	\$4,506	\$260,525	90%	\$234,473	10%	\$26,053
173	WS ATSP	Millard Street	Willoway	Hawthorn Avenue	1.8m sidewalk -2 sides	Town Urban Collector	Short term					0.4	km	Sidewalk-2-1.8	\$ 655,452	\$262,181	\$26,218	\$26,218	\$15,731		\$330,348	\$5,814	\$336,162	90%	\$302,546	10%	\$33,616
174	WS ATSP	Montreal Street	North Street	Stouffer Street	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$52,436	\$5,244	\$5,244	\$3,146		\$66,070	\$1,163	\$67,232	90%	\$60,509	10%	\$6,723
175	WS ATSP	North Street	Millard Street	Tenth Line	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.6	km	Sidewalk-2-1.8	\$ 655,452	\$373,608	\$37,361	\$37,361	\$22,416		\$470,746	\$8,285	\$479,031	90%	\$431,128	10%	\$47,903
176	WS ATSP	Opal Court	Millard Street	End of Opal Court	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.1	km	Sidewalk-2-1.8	\$ 655,452	\$39,327	\$3,933	\$3,933	\$2,360		\$49,552	\$872	\$50,424	90%	\$45,382	10%	\$5,042
177	WS ATSP	Rose Avenue	Burkholder Street	Lloyd Street	1.8m sidewalk -2 sides	Town Urban Road	Short term					0.2	km	Sidewalk-2-1.8	\$ 655,452	\$131,090	\$13,109	\$13									



## Appendix N-1 Draft Capital Program – Services Related to a Highway

Item#	Source for Improvement	Road	From	To	Improvement Type	Road Class / Jurisdiction	Timing	Exist. Cross-section	Future Cross-section	Exist # of Lanes	Ultimate # of Lanes	Length / Qty	Units	Improvement Code	Benchmark cost (2023\$)*	Subtotal	Engineering (10%)	Contingency (10%)	Town's Project Management Cost (6%)	Property Cost	Total cost (2023\$)	Non-refundable HST (1.76%)	Total cost for DC (2023\$)	BTE%	Benefit to Existing	BTG%	Growth Related
202	Capital Budget	Ninth Line	S limit existing Musselman Lake	N limit existing Musselman Lake	1.8m sidewalk -2 sides	Regional Arterial	2024-2025					1.5	km	Sidewalk-2-1.8	\$ 655,452	\$983,178	\$98,318	\$98,318	\$58,991		\$1,238,804	\$21,803	\$1,260,607	90%	\$1,134,547	100%	\$126,061
203	Capital Budget	Aurora Road	Grayfield Drive	Ballantrae School	1.8m sidewalk -2 sides	Regional Arterial	Short term					2.4	km	Sidewalk-2-1.8	\$ 655,452	\$1,573,085	\$157,308	\$157,308	\$94,385		\$1,982,087	\$34,885	\$2,016,972	90%	\$1,815,274	100%	\$201,697
204	Capital Budget	Bloomington Road	W limit of Hamlet of Bloomington	E limit of Hamlet of Bloomington	1.8m sidewalk -2 sides	Regional Arterial	2025					1.0	km	Sidewalk-2-1.8	\$ 655,452	\$655,452	\$65,545	\$65,545	\$39,327		\$825,870	\$14,535	\$840,405	90%	\$756,364	100%	\$84,040
205	WS DC/Capital Budget	Downtown Intensification Area	various locations		1.8m sidewalk -2 sides	Town	2025					0.4	km	Sidewalk-2-1.8							\$100,800	\$1,774	\$102,574	90%	\$92,317	100%	\$10,257
<b>Creek Crossings- Structures</b>																											
206	Capital Budget	Crossing (R805) Forsyth Farm Road at Reesor Creek			Structures	Town Collector	2026							Structures							\$3,300,000	\$58,080	\$3,358,080	0%	\$0	100%	\$3,358,080
207	Capital Budget	Little Rouge at Ringwood SWM			Pedestrian Bridge	Town	2025					600	m2	AT Structures	\$ 4,569	\$2,741,449	\$274,145	\$274,145	\$164,487		\$3,454,226	\$60,794	\$3,515,020	50%	\$1,757,510	50%	\$1,757,510
208	Capital Budget	Crossing Reesor Creek within future Phase 3 lands connecting Tenth Line and York-Durham Line			Pedestrian Bridge	Town	2025					560	m2	AT Structures	\$ 4,569	\$2,558,686	\$255,869	\$255,869	\$153,521		\$3,223,944	\$56,741	\$3,280,685	0%	\$0	100%	\$3,280,685
209	Capital Budget	AT Farm bridge reconstruction between StoufCon 8.1 and 8.2			Pedestrian Bridge	Town	2027							Structures							\$870,000	\$15,312	\$885,312	0%	\$0	100%	\$885,312
210	WSTMP	Crossing Go rail - south of the Old Elm Go station			AT Bridge	Town	Medium term					600	m2	AT Structures	\$ 4,569	\$2,741,449	\$274,145	\$274,145	\$164,487		\$3,454,226	\$60,794	\$3,515,020	0%	\$0	100%	\$3,515,020
211	WSTMP	Cross Stouffville Creek - south of Bethesda Road			AT Bridge	Town	Short term					600	m2	AT Structures	\$ 4,569	\$2,741,449	\$274,145	\$274,145	\$164,487		\$3,454,226	\$60,794	\$3,515,020	0%	\$0	100%	\$3,515,020
212	Capital Budget	Cross Stouffville Creek - Savena Cove			Pedestrian Bridge	Town	2025					600	m2	AT Structures	\$ 4,569	\$2,741,449	\$274,145	\$274,145	\$164,487		\$3,454,226	\$60,794	\$3,515,020	0%	\$0	100%	\$3,515,020
213	WSTMP/Capital Budget	Cross Bloomington Creek - connecting Madori Park and Ken Betz Court			Pedestrian Bridge	Town	2025					540	m2	AT Structures	\$ 4,569	\$2,467,304	\$246,730	\$246,730	\$148,038		\$3,108,803	\$54,715	\$3,163,518	50%	\$1,581,759	50%	\$1,581,759
214	Capital Budget	Conversion of Pedestrian Bridge to Vehicle bridge/EA - Vandorf Park			Structures	Town	2025							Structures							\$350,000	\$6,160	\$356,160	50%	\$178,080	50%	\$178,080
215	Capital Budget	Stouffville Creek Pedestrian Bridge & Foot Path, Design & Construction			Pedestrian Bridge	Town	2025					400.0	m2	AT Structures	\$ 4,569	\$1,827,633	\$182,763	\$182,763	\$109,658		\$2,302,817	\$40,530	\$2,343,347	50%	\$1,171,673	50%	\$1,171,673
<b>Signals</b>																											
216	Capital Budget	Highway 48 / Bethesda Road North Leg			Signals	Provincial Highway	2025					1	LS	Traffic Signals							\$285,000	\$5,016	\$290,016	0%	\$0	100%	\$290,016
217	Capital Budget	(TS27) Tenth Line North / Forsyth Farm Road			Signals	Town Urban Arterial	2024					1	LS	Traffic Signals							\$285,000	\$5,016	\$290,016	0%	\$0	100%	\$290,016
218	Capital Budget	(TS28) Regional Road 30 / Hoover Park Drive			Signals	Regional Arterial	2024					1	LS	Traffic Signals							\$285,000	\$5,016	\$290,016	0%	\$0	100%	\$290,016
219	Capital Budget	Main Street Pedestrian Crossing	Lloyd Street	Freel Lane	Pedestrian Crossing	Town Urban Arterial	2023					1	LS	Traffic Signals							\$125,400	\$2,207	\$127,607	50%	\$63,804	50%	\$63,804
<b>Roundabouts</b>																											
220	Capital Budget	Tenth Line / Street G			Roundabout	Town Urban Arterial	2025					1	LS	Roundabout							\$919,000	\$16,174	\$935,174	0%	\$0	100%	\$935,174
<b>Intersection Improvements</b>																											
221	Capital Budget	Lakeshore Road @ Highway 48				Provincial Highway	2024-2025														\$153,000	\$2,693	\$155,693	0%	\$0	100%	\$155,693
<b>Traffic Management Systems</b>																											
222	Capital Budget	Traffic Systems - collector roads				Town Collector	2023														\$177,700	\$3,128	\$180,828	0%	\$0	100%	\$180,828
223	Capital Budget	Traffic Timing System - Other Roads			TMS	Town	2027														\$149,200	\$2,626	\$151,826	0%	\$0	100%	\$151,826
<b>Studies</b>																											
224	WSTMP	Feasibility study for EcoMobility Hubs			Studies	Town-wide	Short term					1	each	Studies	\$ 100,000	\$100,000		\$10,000	\$6,000		\$116,000	\$2,042	\$118,042	0%	\$0	100%	\$118,042
225	WSTMP	EV Readiness Plan Study			Studies	Town-wide	Short term					1	each	Studies	\$ 100,000	\$100,000		\$10,000	\$6,000		\$116,000	\$2,042	\$118,042	0%	\$0	100%	\$118,042
226	Capital Budget	Complete Streetscape Design, Public Realm and Standards Manual			Studies	Town-wide	2023					1	each	Studies							\$100,000	\$1,760	\$101,760	0%	\$0	100%	\$101,760
227	Capital Budget/WS DC	Traffic Operation Study (Linked to Transportation Master Plan)			Studies	Town-wide	2026					1	each	Studies							\$266,700	\$4,694	\$271,394	0%	\$0	100%	\$271,394
228	Capital Budget	Transportation Master Plan Update			Studies	Town-wide	2026					1	each	Studies							\$275,000	\$4,840	\$279,840	0%	\$0	100%	\$279,840
229	WS DC	Growth management studies (DC)			Studies	Town-wide	Short term					4	each	Studies	\$ 106,612	\$426,448		\$42,645	\$25,587		\$494,679	\$8,706	\$503,386	0%	\$0	100%	\$503,386
230	WSTMP	Complete Street Design Guidelines			Studies	Town-wide	Short term					1	each	Studies	\$ 100,000	\$100,000		\$10,000	\$6,000		\$116,000	\$2,042	\$118,042	0%	\$0	100%	\$118,042
231	WS DC	Growth management studies (TMP)			Studies	Town-wide	Short term					4	each	Studies	\$ 274,145	\$1,096,580		\$109,658	\$65,795		\$1,272,032	\$22,388	\$1,294,420	0%	\$0	100%	\$1,294,420
232	WS DC	Bethesda Road Environmental Assessment (including studies on two special policy areas)			Studies	Town Urban Arterial	Short term					1	each	Studies	\$ 600,000	\$600,000		\$60,000	\$36,000		\$696,000	\$12,250	\$708,250	0%	\$0	100%	\$708,250





## Appendix N-1 Draft Capital Program – Services Related to a Highway

Item#	Source for Improvement	Road	From	To	Improvement Type	Road Class / Jurisdiction	Timing	Exist. Cross-section	Future Cross-section	Exist # of Lanes	Ultimate # of Lanes	Length / Qty	Units	Improvement Code	Benchmark cost (2023\$)*	Subtotal	Engineering (10%)	Contingency (10%)	Town's Project Management Cost (6%)	Property Cost	Total cost (2023\$)	Non-refundable HST (1.76%)	Total cost for DC (2023\$)	BTE%	Benefit to Existing	BTG%	Growth Related
233	Capital Budget	Corridor Improvement Studies and Municipal Class Eas			Studies	Town	2024					1	each	Studies							\$200,000	\$3,520	\$203,520	0%	\$0	100%	\$203,520
234	Capital Budget	Lakeshore Road Environmental Assessment			Studies	Town Urban Road	2024					1	each	Studies							\$168,300	\$2,962	\$171,262	0%	\$0	100%	\$171,262
235	Capital Budget/WSTMP	10th Line Improvements and Jog Elimination Environmental Assessment			Studies	Town Urban Arterial	2026					1	each	Studies							\$224,400	\$3,949	\$228,349	0%	\$0	100%	\$228,349
<b>TOTAL</b>																<b>\$ 109,623,756</b>	<b>\$ 10,720,073</b>	<b>\$ 10,962,376</b>	<b>\$ 6,577,425</b>	<b>\$ 16,848,000</b>	<b>\$ 197,054,997</b>	<b>\$ 3,468,168</b>	<b>\$ 200,523,165</b>		<b>\$76,428,802</b>		<b>\$124,094,362</b>

\*NOTE: All costs are approximate and based on unit cost assumptions. Detailed cost estimates are subject to further study. A list of benchmark cost estimates is provided in Appendix D-1.



# Appendix O

## Draft Water and Wastewater Capital Program as per the 2023 Draft Water and Wastewater Master Plan



## Appendix O-1 Draft Water Capital Program

an ID	Project Name	Project Description	Year in Service	Class EA	Size/ Capacity	Length (m)	Class Estimate Type	Project Complexity	Area Condition	Base Construction Cost (\$2023)	Crossings (\$2023)	Additional Costs (\$2023)	Sub-Total Construction Costs	Soft Costs (Engineering + In- House) (\$2023)	Property Costs (\$2023)	Project Contingency (\$2023)	Non- Refundable HST (\$2023)	Total Estimated Cost (\$2023)	Benefit to Existing (%)	Benefit to Existing (\$)	Growth (\$2023)	Development Charge Ineligible	Local Service Cost (\$2023)	Marginal Cost (\$2023)	Post Period Benefit (\$2023)	Development Charges (\$2023)	DC Criteria
	Bethesda Side Road #1	New 300 mm diameter watermain along Bethesda Side Road from W09 to W08. Two creek crossings.	2031-2036	A+	300 mm	845	Class 4	High	Suburban	1,009,681	104,544	357,000	1,471,000	368,000	29,000	467,000	39,000	\$ 2,374,000	0%	\$ -	\$ 2,374,000				\$ 2,374,000	DC Criteria 2	
	Bethesda Side Road #2	New 300 mm diameter watermain along Bethesda Side Road from W10 to W09	2023-2026	A+	300 mm	240	Class 4	Med	Rural	243,483	-	65,000	308,000	74,000	5,000	58,000	7,000	\$ 452,000	0%	\$ -	\$ 452,000				\$ 452,000	DC Criteria 2	
	Bethesda Side Road 3	New 300 mm diameter watermain along Bethesda Side Road from Ninth Line to W10	2026-2031	A+	300 mm	695	Class 4	Med	Suburban	807,643	-	214,000	1,022,000	245,000	15,000	192,000	25,000	\$ 1,499,000	0%	\$ -	\$ 1,499,000				\$ 1,499,000	DC Criteria 2	
	Hwy 48 #1	New 300mm diameter watermain along Hwy 48 from Main Street to Hoover Park Drive. One creek crossing	2023-2026	A+	300 mm	862	Class 4	High	Suburban	1,013,515	500,000	484,000	1,998,000	500,000	40,000	634,000	53,000	\$ 3,225,000	0%	\$ -	\$ 3,225,000				\$ 3,225,000	DC Criteria 1	
	PRV Highway 48	PRV on Highway 48 south of Stouffville Road/Main Street	2023-2026	A+	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 1,000,000	0%	\$ -	\$ 1,000,000				\$ 1,000,000	DC Criteria 1	
	York Durham Line #1	New 300 mm diameter watermain along Main Street and York Durham Line, from Stouffville Well 1&2 to Loretta Crescent	2031-2036	A+	300 mm	483	Class 4	High	Suburban	566,023	-	181,000	747,000	187,000	15,000	237,000	20,000	\$ 1,206,000	50%	\$ 603,000	\$ 603,000				\$ 603,000	DC Criteria 5	
	York Durham Line #2	New 200 mm diameter watermain along York Durham Line, between Bethesda Side Road and proposed Post Gate Road	2031-2036	A+	200 mm	446	Class 4	High	Rural	335,734	-	107,000	443,000	111,000	9,000	141,000	12,000	\$ 716,000	0%	\$ -	\$ 716,000				\$ 716,000	DC Criteria 5	
	Bethesda Side Road #4	New 300 mm diameter watermain along Bethesda Side Road from W01 to Hwy 48	2046-2051	A+	300 mm	267	Class 4	Med	Rural	269,127	-	71,000	340,000	82,000	5,000	64,000	8,000	\$ 499,000	50%	\$ 249,500	\$ 249,500				\$ 249,500	DC Criteria 2	
	Future Road #2	New 300 mm diameter watermain along future road connecting Baker Hill Boulevard to Bethesda Side Road and Main Street	2026-2031	A+	300 mm	440	Class 4	Med	Rural	433,436	-	115,000	548,000	132,000	8,000	103,000	13,000	\$ 804,000	0%	\$ -	\$ 804,000		\$ 804,000			Non-DC (DC Criteria 4)	
	Future Road #3	New 300 mm diameter watermain along future road connecting Baker Hill Boulevard to Bethesda Side Road	2026-2031	A+	300 mm	410	Class 4	Low	Rural	404,943	-	85,000	490,000	115,000	5,000	61,000	11,000	\$ 682,000	0%	\$ -	\$ 682,000		\$ 682,000			Non-DC (DC Criteria 4)	
	Future Road #9	New 300 mm diameter watermain along future road in northeast corner of Stouffville, connecting W37 to Bethesda Side Road	2026-2031	A+	300 mm	870	Class 4	High	Rural	841,834	-	269,000	1,111,000	278,000	22,000	353,000	30,000	\$ 1,794,000	0%	\$ -	\$ 1,794,000		\$ 1,794,000			Non-DC (DC Criteria 4)	
	Future Road #10	New 300 mm diameter watermain along future road in northeast corner of Stouffville, connecting W19 to W16	2026-2031	A+	300 mm	455	Class 4	High	Rural	463,223	52,111	165,000	680,000	170,000	14,000	216,000	18,000	\$ 1,098,000	0%	\$ -	\$ 1,098,000		\$ 1,098,000			Non-DC (DC Criteria 4)	
	Future Road #11	New 300 mm diameter watermain along future road in northeast corner of Stouffville, connecting W19 to W16	2026-2031	A+	300 mm	580	Class 4	High	Rural	581,943	52,111	203,000	837,000	209,000	17,000	266,000	22,000	\$ 1,351,000	0%	\$ -	\$ 1,351,000		\$ 1,351,000			Non-DC (DC Criteria 4)	
	Future Road #12	New 300 mm diameter watermain along future road in northeast corner of Stouffville, connecting W17 and W18	2026-2031	A+	300 mm	350	Class 4	High	Rural	347,957	-	111,000	459,000	115,000	9,000	146,000	12,000	\$ 741,000	0%	\$ -	\$ 741,000		\$ 741,000			Non-DC (DC Criteria 4)	
	PRV Future Road	PRV west of W34	2041-2046	A+	-	-	Class 4	-	-	-	-	-	-	-	-	-	-	\$ 900,000	20%	\$ 180,000	\$ 720,000				\$ 720,000	DC Criteria 1	
	Main Street	300 mm watermain upgrade along Main Street from Ninth Line to Park Drive. One railway and one creek crossing.	2023-2026	A+	300 mm	1000	Class 4	High	Urban	1,186,336	1,000,000		2,886,000	722,000	58,000	916,000	77,000	\$ 4,658,000	50%	\$ 2,329,000	\$ 2,329,000				\$ 2,329,000	DC Criteria 2	
	Second Street	200 mm watermain upgrade along Second Street from Ninth Line to Albert Street.	2023-2026	A+	200 mm	345	Class 4	Low	Urban	323,353	104,221	90,000	517,000	122,000	5,000	64,000	12,000	\$ 720,000	50%	\$ 360,000	\$ 360,000				\$ 360,000	DC Criteria 2	
	Commercial Street	150 mm watermain upgrade along Commercial Street from Church Street North to Mill Street	2023-2026	A+	150 mm	145	Class 4	High	Urban	116,571	-	37,000	154,000	39,000	3,000	49,000	4,000	\$ 249,000	50%	\$ 124,500	\$ 124,500				\$ 124,500	DC Criteria 2	
	Church Street North	200 mm watermain upgrade along Church Street North from Main Street to Warriner Street	2023-2026	A+	200 mm	276	Class 4	High	Urban	250,771	-	80,000	331,000	83,000	7,000	105,000	9,000	\$ 534,000	50%	\$ 267,000	\$ 267,000				\$ 267,000	DC Criteria 2	
	O'Brien Avenue	150 mm watermain upgrade along O'Brien Avenue from Main Street to Burkholder Street	2023-2026	A+	150 mm	231	Class 4	High	Urban	187,549	52,111	77,000	316,000	79,000	6,000	100,000	8,000	\$ 510,000	50%	\$ 255,000	\$ 255,000				\$ 255,000	DC Criteria 2	
	Lloyd Street	150 mm watermain upgrade along Lloyd Street from Main Street to Rose Avenue	2023-2026	A+	150 mm	375	Class 4	Med	Urban	298,827	52,111	93,000	444,000	107,000	7,000	84,000	11,000	\$ 652,000	50%	\$ 326,000	\$ 326,000				\$ 326,000	DC Criteria 2	
	Orchard Park Boulevard	200 mm watermain upgrade along Orchard Park Boulevard from Main Street to Sunset Boulevard	2023-2026	A+	200 mm	197	Class 4	High	Urban	180,610	-	58,000	238,000	60,000	5,000	76,000	6,000	\$ 385,000	50%	\$ 192,500	\$ 192,500				\$ 192,500	DC Criteria 2	
	PRV Millard Street	New PRV on Millard Street and Willoway	2023-2026	A+	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 1,000,000	50%	\$ 500,000	\$ 500,000				\$ 500,000	DC Criteria 1	
	Future Road #14	New 200 mm diameter watermain along a future road from Forsyth Farm Drive to Auctioneers Crescent	2026-2031	A+	200 mm	180	Class 4	Med	Rural	138,868	-	37,000	176,000	42,000	3,000	33,000	4,000	\$ 258,000	50%	\$ 129,000	\$ 129,000		\$ 129,000			Non-DC (DC Criteria 4)	
	Mill Street	200 mm watermain upgrade along Mill Street from Main Street to George Street	2023-2026	A+	200 mm	98	Class 4	High	Urban	92,686	-	30,000	122,000	31,000	2,000	39,000	3,000	\$ 197,000	50%	\$ 98,500	\$ 98,500				\$ 98,500	DC Criteria 2	
	HWY 48 #3	New 250 mm diameter watermain along HWY 48 from Spruceview Place to existing dead end.	2023-2026	A+	250 mm	1173	Class 4	High	Rural	1,000,800	-	320,000	1,321,000	330,000	26,000	419,000	35,000	\$ 2,132,000	100%	\$ 2,132,000	\$ -					No DC Eligible	
1	Future Road #15	New 300 mm diameter watermain along future road in northeast corner of Stouffville, connecting W19 to W20. One railway crossing	2026-2031	A+	300 mm	408	Class 4	High	Rural	418,584	500,000	294,000	1,213,000	303,000	24,000	385,000	32,000	\$ 1,958,000	20%	\$ 391,600	\$ 1,566,400				\$ 1,566,400	DC Criteria 1	
3	Future Road #15	New 300 mm diameter watermain along future road in northeast corner of Stouffville, connecting W19 to W20. One creek crossing	2041-2046	A+	300 mm	889	Class 4	High	Rural	875,420	500,000	440,000	1,816,000	454,000	36,000	577,000	48,000	\$ 2,932,000	20%	\$ 586,400	\$ 2,345,600				\$ 2,345,600	DC Criteria 1	
	HWY 48 #2	New 300 mm diameter watermain along Hwy 48	2046-2051	A+	300 mm	540	Class 4	Med	Rural	543,953	52,272	158,000	754,000	181,000	11,000	142,000	18,000	\$ 1,106,000	50%	\$ 553,000	\$ 553,000				\$ 553,000	DC Criteria 2	



## Appendix O-1 Draft Water Capital Program

an ID	Project Name	Project Description	Year in Service	Class EA	Size/ Capacity	Length (m)	Class Estimate Type	Project Complexity	Area Condition	Base Construction Cost (\$2023)	Crossings (\$2023)	Additional Costs (\$2023)	Sub-Total Construction Costs	Soft Costs (Engineering + In- House) (\$2023)	Property Costs (\$2023)	Project Contingency (\$2023)	Non- Refundable HST (\$2023)	Total Estimated Cost (\$2023)	Benefit to Existing (%)	Benefit to Existing (\$)	Growth (\$2023)	Development Charge Ineligible	Local Service Cost (\$2023)	Marginal Cost (\$2023)	Post Period Benefit (\$2023)	Development Charges (\$2023)	DC Criteria
	Future Road #16	New 300 mm diameter watermain along future road in northeast corner of Stouffville, connecting W30 to W16	2026-2031	A+	300 mm	268	Class 4	High	Rural	270,077	-	86,000	357,000	89,000	7,000	113,000	10,000	\$ 576,000	0%	\$ -	\$ 576,000		\$ 576,000				Non-DC (DC Criteria 4)
	York Durham Line #3	New 200 mm diameter watermain along York Durham Line, between Bethesda Side Road and Main Street	2026-2031	A+	200 mm	268	Class 4	High	Rural	203,997	-	65,000	269,000	67,000	5,000	85,000	7,000	\$ 434,000	0%	\$ -	\$ 434,000					\$ 434,000	DC Criteria 5
	Gormley Fire Protection	New 300 mm diameter fire protection watermain on Stouffville Road from Union Street west	2023-2026	A+	300 mm	347	Class 4	Low	Suburban	411,022	-	86,000	497,000	117,000	5,000	62,000	11,000	\$ 692,000	23%	\$ 159,160	\$ 532,840					\$ 532,840	DC Criteria 2
	Gormley Fire Protection	New 300 mm diameter fire protection watermain on Union Street from Stouffville Street south	2023-2026	A+	300 mm	453	Class 4	Low	Suburban	531,831	-	112,000	644,000	151,000	6,000	80,000	15,000	\$ 896,000	23%	\$ 206,080	\$ 689,920					\$ 689,920	DC Criteria 2
	Master Plan	Water Master Plan (occurs every 5 years at \$300k each)	2026-2051	-														\$ 1,500,000	0%	\$ -	\$ 1,500,000	\$ 1,500,000					Non-DC
	Future Studies	Vandorf Future Service Area Study	2026-2031	-														\$ 250,000	0%	\$ -	\$ 250,000	\$ 250,000					Non-DC
	Future Studies	Gormley Future Service Area Study	2026-2031	-														\$ 250,000	0%	\$ -	\$ 250,000	\$ 250,000					Non-DC
	Future Studies	Whitebelt Lands Future Service Area Study	2026-2031	-														\$ 250,000	0%	\$ -	\$ 250,000	\$ 250,000					Non-DC
	Stouffville Road	600mm Watermain twinning on Stouffville Road from the Z2 BPS to Hwy48 (Town owned section)	2036-2041	A+	600 mm	530	Class 4	High	Rural	1,301,798	1,490,460	894,000	3,686,000	922,000	74,000	1,170,000	98,000	\$ 5,949,000	0%	\$ -	\$ 5,949,000					\$ 5,949,000	DC Criteria 5
	Main Street	The existing aged 250mm watermain along Main Street from Hwy 48 to Weldon Road to be upgraded to 300mm	2041-2046	A+	300 mm	1230	Class 4	High	Urban	1,448,471	104,221	497,000	2,050,000	513,000	41,000	651,000	54,000	\$ 3,309,000	50%	\$ 1,654,500	\$ 1,654,500					\$ 1,654,500	DC Criteria 2
	Millard Street and Bearings Avenue	connect the existing 150mm watermain on Bearings Avenue to the existing 300mm watermain on Millard Street to improve resiliency	2041-2046	A+	300 mm	10	Class 4	Low	Urban	26,937	-	6,000	33,000	8,000	-	4,000	1,000	\$ 46,000	50%	\$ 23,000	\$ 23,000					\$ 23,000	DC Criteria 2
	Cam Fella Boulevard	Upgrade to the existing 150mm watermain along Cam Fella Boulevard cul-de-sac to 200mm, and a new 200mm watermain on easement connecting Auctioneers Crescent	2026-2031	A+	200 mm	350	Class 4	Low	Suburban	322,143	42,383	77,000	441,000	104,000	300,000	84,000	16,000	\$ 944,000	50%	\$ 472,000	\$ 472,000					\$ 472,000	Non-DC (DC Criteria 4)
	Ninth Line	New 300mm Watermain twinning on Ninth Line from Musselman Lake to Windsor Drive	2023-2026	A+	300 mm	660	Class 4	High	Suburban	783,293	52,111	267,000	1,103,000	276,000	22,000	350,000	29,000	\$ 1,780,000	50%	\$ 890,000	\$ 890,000					\$ 890,000	DC Criteria 5
	Forsyth Farm Road	New 300mm Watermain on Forsyth Farm Road connecting W37 and Existing watermain on Forsyth Farm Road	2026-2031	A+	300 mm	250	Class 4	Med	Rural	252,981	-	67,000	320,000	77,000	5,000	60,000	8,000	\$ 469,000	50%	\$ 234,500	\$ 234,500					\$ 234,500	Non-DC (DC Criteria 4)
	Forsyth Farm Road	New 200mm Watermain on Forsyth Farm Road connecting W37 and future watermain on York Durham Line	2026-2031	A+	200 mm	220	Class 4	High	Rural	174,123	500,000	216,000	890,000	223,000	18,000	283,000	24,000	\$ 1,437,000	0%	\$ -	\$ 1,437,000					\$ 1,437,000	Non-DC (DC Criteria 4)
	Future Road #17	New 250 mm diameter watermain along future road in northeast corner of Stouffville, connecting W16 to W56	2026-2031	A+	250 mm	170	Class 4	High	Rural	150,359	-	48,000	198,000	50,000	4,000	63,000	5,000	\$ 320,000	0%	\$ -	\$ 320,000					\$ 320,000	Non-DC (DC Criteria 4)
	Future Road #17	New 200 mm diameter watermain along future road in northeast corner of Stouffville, connecting W56 to W07	2031-2036	A+	200 mm	170	Class 4	High	Rural	137,119	500,000	204,000	841,000	210,000	17,000	267,000	22,000	\$ 1,357,000	0%	\$ -	\$ 1,357,000					\$ 1,357,000	Non-DC (DC Criteria 4)
	Hwy 48	New 300mm diameter watermain along Hwy 48 from Hoover Park Dr to new road within MZO 1 lands (Street A)	2023-2026	A+	300 mm	900	Class 4	High	Suburban	1,041,284	-	333,000	1,374,000	344,000	28,000	436,000	37,000	\$ 2,218,000	0%	\$ -	\$ 2,218,000					\$ 2,218,000	Non-DC (DC Criteria 4)
	MZO1 Loop	New 250mm diameter watermain within MZO 1 Lands to new Street A	2023-2026	A+	250 mm	820	Class 4	High	Rural	707,708	42,383	240,000	990,000	248,000	20,000	314,000	26,000	\$ 1,598,000	0%	\$ -	\$ 1,598,000					\$ 1,598,000	Non-DC (DC Criteria 4)
	Future Road #18	New 250mm diameter watermain within MZO 2 lands connecting W61 and W62	2031-2036	A+	250 mm	1650	Class 4	High	Rural	1,411,464	500,000	612,000	2,523,000	631,000	51,000	801,000	67,000	\$ 4,072,000	0%	\$ -	\$ 4,072,000					\$ 4,072,000	Non-DC (DC Criteria 4)
	Future Road #19	New 250mm diameter watermain within MZO 2 lands connecting W61 and south end of W62	2031-2036	A+	250 mm	1400	Class 4	High	Rural	1,205,705	542,383	559,000	2,307,000	577,000	46,000	732,000	61,000	\$ 3,723,000	0%	\$ -	\$ 3,723,000					\$ 3,723,000	Non-DC (DC Criteria 4)
	Future Road #20	New 250mm watermain within in MZO2 development connecting W59 and W60	2031-2036	A+	300 mm	350	Class 4	Med	Rural	347,957	-	92,000	440,000	106,000	7,000	83,000	11,000	\$ 646,000	0%	\$ -	\$ 646,000					\$ 646,000	Non-DC (DC Criteria 4)
	McCowan Road	New 250mm watermain on McCowan Road connecting W59 and W60	2031-2036	A+	300 mm	760	Class 4	High	Suburban	881,724	-	282,000	1,164,000	291,000	23,000	370,000	31,000	\$ 1,879,000	0%	\$ -	\$ 1,879,000					\$ 1,879,000	DC Criteria 5
	McCowan Road	New 300mm watermain on McCowan Road from new pumping station to MZO2 development	2031-2036	A+	300 mm	505	Class 4	High	Suburban	591,097	-	189,000	780,000	195,000	16,000	248,000	21,000	\$ 1,259,000	0%	\$ -	\$ 1,259,000					\$ 1,259,000	DC Criteria 5
	Ninth Line	New 200mm Watermain twinning on Ninth Line from Cedarvale Boulevard to Legendary Trail	2031-2036	A+	200 mm	1300	Class 4	High	Suburban	1,160,202	-	371,000	1,531,000	383,000	31,000	486,000	41,000	\$ 2,471,000	50%	\$ 1,235,500	\$ 1,235,500					\$ 1,235,500	DC Criteria 5
	MZO1 Loop	New 200mm diameter watermain within MZO 1 Lands along new Street A from W58 to W57.	2023-2026	A+	200 mm	270	Class 4	High	Rural	211,128	500,000	228,000	939,000	235,000	19,000	298,000	25,000	\$ 1,516,000	0%	\$ -	\$ 1,516,000					\$ 1,516,000	Non-DC (DC Criteria 4)
	MZO1 Servicing	New 250mm diameter watermain within MZO 1 Lands along new Street A from W58 to the West	2023-2026	A+	250 mm	200	Class 4	Low	Rural	175,796	-	37,000	213,000	50,000	2,000	27,000	5,000	\$ 297,000	0%	\$ -	\$ 297,000					\$ 297,000	Non-DC (DC Criteria 4)
	Future Railway Crossing	New 300mm watermain connecting W18 and W34 crossing the Go Transit Railway	2026-2031	A+	300 mm	650	Class 4	High	Rural	648,427	500,000	367,000	1,516,000	379,000	30,000	481,000	40,000	\$ 2,447,000	0%	\$ -	\$ 2,447,000					\$ 2,447,000	Non-DC (DC Criteria 4)
	Water Meter AMI	7 antennas/towers for water meter AMI	2026-2051	-														\$ 475,219	0%	\$ -	\$ 475,219					\$ 475,219	
<b>Total Program 2051</b>																		<b>\$78,692,219</b>	<b>\$14,151,740</b>	<b>\$64,540,479</b>	<b>\$2,250,000</b>	<b>\$27,512,500</b>	<b>\$0</b>	<b>\$0</b>	<b>\$34,777,979</b>		



## Appendix O-2 Draft Water Capital Program – Additional Cost Elements

Cost Component	Complexity	Class 1 Cost Estimate Multiplier	Class 2 Cost Estimate Multiplier	Class 3 Cost Estimate Multiplier	Class 4 Cost Estimate Multiplier	Notes
Construction Unit Cost Estimate		Project specific costs based on detailed study of work methods, resources and materials. For example, material costs based on current supplier quotes. All project components costed individually and entered into Halifax Water's Schedule of Quantities and Unit Prices.	Uses features from both the unit rate method (for low risk items) and first principles method (for high risk items). Majority of project value based on first principles	More accurate unit rates, still largely inclusive "all in" rates although cost based on historic unit rates. (E.g. sewer cost per meter, cost per manhole, consider crossings etc.)	An approximate method of estimating using an inclusive "all in" unit rates. (E.g. sewer cost per meter)	
Accuracy Range	Low				30%	For information only
	Med				40%	
	High				50%	
<b>Base Construction Cost</b>						
<b>Additional Costs</b>						
Additional Construction Costs	Low				10%	Additional Construction Costs not included in unit rate, valves and crossings. Includes Mod/Demob, connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Med				15%	
	High				20%	
<b>Provisional &amp; Allowance</b>						
Provisional & Allowance					10%	Covering provisional items typically included in Tender (Additional materials and labour)
<b>Soft Costs</b>						
<b>Geotechnical / Hydrogeological / Materials</b>						
Geotechnical / Hydrogeological / Materials	Low				0.50%	Applied generally to all projects
	Med				1.00%	
	High				2.00%	
<b>Property Requirements</b>						
Property Requirements	Low				1.00%	Applied generally to all projects for potential property/easement needs.
	Med				1.50%	
	High				2.00%	
<b>Consultant Engineering/Design (External)</b>						
Total Construction Cost <\$10M	\$10,000,000				15%	Design / Contract Administration (External)
Total Construction Cost \$10M - \$50M	\$50,000,000				12%	
Total Construction Cost >\$50M	\$50,000,000				10%	
<b>In House Labour/Engineering/Wages/CA (Internal)</b>						
Total Construction Cost <\$10M	\$10,000,000				8%	Engineering / Design (Internal)
Total Construction Cost \$10M - \$50M	\$50,000,000				6%	
Total Construction Cost >\$50M	\$50,000,000				4%	
<b>Project Contingency</b>						
Project Contingency	Low	10%	10%	10%	10%	Contingency will change based on high/low complexity projects. Complex project can have higher uncertainty in design costs as well as construction
	Med	10%	10%	15%	15%	
	High	10%	15%	20%	25%	
<b>Non-Refundable HST</b>						
Non-Refundable HST		1.76%	1.76%	1.76%	1.76%	



## Appendix O-3 Draft Wastewater Capital Program

Master Plan ID	Project Name	Project Description	Year in Service	Size / Capacity	Depth	Length (m)	Class Estimate Type	Project Complexity	Area Condition	Base Construction Cost (\$2023)	Crossings (\$2023)	Additional Costs (\$2023)	Sub-Total Construction (\$2023)	Soft Costs (Engineering + In-House) (\$2023)	Property Costs (\$2023)	Project Contingency (\$2023)	Non-Refundable HST (\$2023)	Total Estimated Cost (\$2023)	Benefit to Existing (%)	Benefit to Existing (\$)	Growth (\$2023)	Development Charges Ineligible	Local Service Cost (\$2023)	Marginal Cost (Criteria 4) (\$2023)	Post Period Benefit (\$2023)	Development Charges (\$2023)	DC Criteria
WW01	Subtrunk 13 Extension	200mm sewer on Highway 48 from Norman Jones Place to Bethesda Road	2046-2051	200 mm	Sewer 5m	600	Class 4	Med	Rural	480,271	93,242	152,000	725,000	174,000	11,000	137,000	17,000	\$ 1,064,000	100%	\$ 1,064,000	\$ -						No DC Eligible
WW02	Subtrunk 11 Extension	250/300mm sewer on future road south of Main Street to YDSS West Trunk Sewer	2026-2031	300 mm	Sewer 5m	545	Class 4	High	Rural	484,367	1,000,000	475,000	1,959,000	490,000	39,000	622,000	52,000	\$ 3,162,000	0%	\$ -	\$ 3,162,000		\$ 3,162,000				Non-DC (DC Criteria 3)
WW05	Subtrunk 9 Extension	375mm sewer on future road from the existing Rougeview SPS to Highway 48	2031-2036	300 mm	Sewer 10m	700	Class 4	High	Urban	3,483,149	-	1,115,000	4,598,000	1,150,000	92,000	1,460,000	122,000	\$ 7,422,000	0%	\$ -	\$ 7,422,000		\$ 7,422,000				Non-DC (DC Criteria 3)
WW08	Subtrunk 1 Extension (Part 1 of 6)	600mm sewer on York/Durham Line from the existing subtrunk 1 sewer north of Hoover Park Drive to Main Street	2026-2031	600 mm	Tunnel Sewer	700	Class 4	High	Urban	6,230,263	-	1,994,000	8,224,000	2,056,000	165,000	2,611,000	218,000	\$ 13,274,000	0%	\$ -	\$ 13,274,000				\$ 13,274,000		DC Criteria 5
WW09	Subtrunk 1 Extension (Part 2 of 6)	450mm sewer on York/Durham Line from Main Street to the north limit of CamFella development	2026-2031	450 mm	Tunnel Sewer	360	Class 4	High	Suburban	3,204,135	-	1,025,000	4,229,000	1,057,000	85,000	1,343,000	112,000	\$ 6,826,000	0%	\$ -	\$ 6,826,000				\$ 6,826,000		DC Criteria 5
WW10	Subtrunk 1 Extension (Part 3 of 6)	450mm sewer on York/Durham Line from the north limit of CamFella development to Forsyth Farm Drive	2026-2031	450 mm	Tunnel Sewer	660	Class 4	High	Suburban	5,874,248	-	1,880,000	7,754,000	1,939,000	155,000	2,462,000	206,000	\$ 12,515,000	0%	\$ -	\$ 12,515,000				\$ 12,515,000		DC Criteria 5
WW11	Subtrunk 1 Extension (Part 4 of 6)	450mm sewer on Forsyth Farm Drive from York/Durham Line to Keeler Avenue	2026-2031	450 mm	Sewer 10m	510	Class 4	High	Rural	2,022,977	1,433,949	1,106,000	4,563,000	1,141,000	91,000	1,449,000	121,000	\$ 7,365,000	0%	\$ -	\$ 7,365,000		\$ 7,124,000	\$ 241,000	\$ 241,000		DC Criteria 4
WW12	Subtrunk 1 Extension (Part 5 of 6)	450mm sewer on Keeler Avenue from Forsyth Farm Drive to the connection to subtrunk 15 on future road to the north	2026-2031	450 mm	Sewer 10m	130	Class 4	High	Rural	515,661	-	165,000	681,000	170,000	14,000	216,000	18,000	\$ 1,099,000	0%	\$ -	\$ 1,099,000		\$ 263,000	\$ 836,000	\$ 836,000		DC Criteria 4
WW13A	Subtrunk 1 Extension (Part 6 of 6)	375mm sewer on future road east of Tenth Line from the connection to subtrunk 15 to Bethesda Road (Deep Excavation Required)	2026-2031	375 mm	Sewer 10m	450	Class 4	High	Rural	1,722,436	-	551,000	2,274,000	569,000	46,000	722,000	60,000	\$ 3,670,000	0%	\$ -	\$ 3,670,000		\$ 3,670,000				Non-DC (DC Criteria 3)
WW13B	Subtrunk 1 Extension (Part 6 of 6)	375mm sewer on future road east of Tenth Line from the connection to subtrunk 15 to Bethesda Road (Shallow Excavation Required)	2026-2031	375 mm	Sewer 5m	660	Class 4	High	Rural	625,482	1,000,000	520,000	2,146,000	537,000	43,000	681,000	57,000	\$ 3,463,000	0%	\$ -	\$ 3,463,000		\$ 3,463,000				Non-DC (DC Criteria 3)
WW14	Subtrunk 15 (Part 1 of 2)	300mm on future road from the connection to subtrunk 1 to the west crossing Tenth Line	2026-2031	300 mm	Sewer 5m	580	Class 4	High	Rural	515,473	52,111	182,000	749,000	187,000	15,000	238,000	20,000	\$ 1,209,000	0%	\$ -	\$ 1,209,000		\$ 1,209,000				Non-DC (DC Criteria 3)
WW15	Subtrunk 15 (Part 2 of 2)	300mm on future road west of Tenth Line and south of the Go Transit Railway	2026-2031	300 mm	Sewer 5m	610	Class 4	High	Rural	542,136	-	173,000	716,000	179,000	14,000	227,000	19,000	\$ 1,155,000	0%	\$ -	\$ 1,155,000		\$ 1,155,000				Non-DC (DC Criteria 3)
WW16	Subtrunk 3 Extension	300mm sewer from the existing subtrunk 3 sewer north of Greenwood Road to the north side of the Go Transit Railway	2026-2031	300 mm	Sewer 10m	110	Class 4	High	Rural	408,998	1,000,000	451,000	1,860,000	465,000	37,000	591,000	49,000	\$ 3,003,000	0%	\$ -	\$ 3,003,000		\$ 3,003,000				Non-DC (DC Criteria 3)
WW17	Subtrunk 18	300mm sewer on future road from Baker Hill Boulevard to Bethesda Road (Subtrunk 18)	2023-2026	300 mm	Sewer 10m	590	Class 4	Med	Rural	2,193,719	-	581,000	2,775,000	666,000	42,000	522,000	67,000	\$ 4,071,000	0%	\$ -	\$ 4,071,000				\$ 227,000	\$ 3,844,000	DC Criteria 2
WW18	Subtrunk 18	300mm sewer on Bethesda Road from future sewer to the west of the creek (Subtrunk 18)	2031-2036	300 mm	Sewer 5m	480	Class 4	High	Rural	426,598	186,484	196,000	809,000	202,000	16,000	257,000	22,000	\$ 1,306,000	0%	\$ -	\$ 1,306,000				\$ 91,000	\$ 1,215,000	DC Criteria 2
WW24	Rougeview SPS Decommission	Rougeview Sanitary Pumping Station Decommission	2031-2036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 450,000	0%	\$ -	\$ 450,000				\$ 450,000		DC Criteria 1
WW29	Main Street Sewer	300mm sewer on Main Street from Mohawk Gate to York Durham Line	2031-2036	300 mm	Sewer 10m	560	Class 4	High	Suburban	2,498,608	-	-	3,367,000	842,000	67,000	1,069,000	89,000	\$ 5,434,000	0%	\$ -	\$ 5,434,000		\$ 5,434,000				Non-DC (DC Criteria 3)
WW30A	Cam Fella Boulevard Sewer (Part 1 of 2)	200mm sewer on Cam Fella Boulevard to Main St	2031-2036	200 mm	Sewer 5m	450	Class 4	Low	Suburban	432,244	-	91,000	523,000	123,000	5,000	65,000	12,000	\$ 728,000	0%	\$ -	\$ 728,000		\$ 728,000				Non-DC (DC Criteria 3)
WW30B	Cam Fella Boulevard Sewer (Part 2 of 2)	200mm sewer on Cam Fella Boulevard to Main St	2031-2036	200 mm	Sewer 5m	800	Class 4	Low	Suburban	768,434	-	161,000	930,000	219,000	9,000	116,000	21,000	\$ 1,295,000	0%	\$ -	\$ 1,295,000		\$ 1,295,000				Non-DC (DC Criteria 3)
WW31	Flow Monitoring	Flow Monitoring Program (ongoing, 4 more years remaining at \$160k per year)	2021-2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 640,000	50%	\$ 320,000	\$ 320,000				\$ 320,000		
WW32	Stouffville Road Sewer Upgrade	the existing 200mm sewer along Stouffville Road to be upgraded to 300mm	2036-2041	300 mm	Sewer 5m	500	Class 4	High	Rural	444,373	1,000,000	462,000	1,907,000	477,000	38,000	605,000	51,000	\$ 3,078,000	0%	\$ -	\$ 3,078,000				\$ 3,078,000		DC Criteria 5
WW33	Bona Land Development	375mm sewer on proposed Street A within Bona Land Development	2023-2026	375 mm	Sewer 10m	400	Class 4	Low	Rural	1,531,054	-	322,000	1,853,000	436,000	19,000	231,000	42,000	\$ 2,580,000	0%	\$ -	\$ 2,580,000				\$ 214,000	\$ 2,366,000	DC Criteria 2
WW34	Highway 48 Crossing	600mm sewer crossing Hwy 48 from Smartcentres to MZ01 lands	2031-2036	600 mm	Sewer 10m	300	Class 4	High	Rural	1,343,061	1,433,949	889,000	3,666,000	917,000	73,000	1,164,000	97,000	\$ 5,917,000	0%	\$ -	\$ 5,917,000				\$ 5,917,000		DC Criteria 2
WW35	MZ01 Lands Sewer	600mm sewer on future road	2023-2026	600 mm	Sewer 5m	365	Class 4	Low	Rural	519,506	-	109,000	629,000	148,000	6,000	78,000	14,000	\$ 875,000	0%	\$ -	\$ 875,000				\$ 875,000		DC Criteria 2
WW36	MZ02 Lands Sewer	600mm sewer on future road	2031-2036	600 mm	Sewer 10m	930	Class 4	High	Rural	4,163,490	553,801	1,510,000	6,227,000	1,557,000	125,000	1,977,000	165,000	\$ 10,051,000	0%	\$ -	\$ 10,051,000				\$ 10,051,000		DC Criteria 2
WW41	Master Plan	Wastewater Master Plan (occurs every 5 years at \$300k each)	2026-2051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 1,500,000	0%	\$ -	\$ 1,500,000	\$ 1,500,000					Non-DC
WW42	Future Studies	Vandorf Future Service Area Study	2026-2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 250,000	0%	\$ -	\$ 250,000	\$ 250,000					Non-DC
WW43	Future Studies	Gormley Future Service Area Study	2026-2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 250,000	0%	\$ -	\$ 250,000	\$ 250,000					Non-DC
WW44	Future Studies	Whitebelt Lands Future Service Area Study	2026-2031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 250,000	0%	\$ -	\$ 250,000	\$ 250,000					Non-DC
WW45	Flow Monitoring	Flow Monitoring Program (24 years; annual costs of \$200k expected)	2026-2051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ 4,800,000	50%	\$ 2,400,000	\$ 2,400,000				\$ 2,400,000		
<b>Total Program 2051</b>																		<b>\$108,702,000</b>		<b>\$3,784,000</b>	<b>\$104,918,000</b>	<b>\$2,250,000</b>	<b>\$37,928,000</b>	<b>\$1,077,000</b>	<b>\$532,000</b>	<b>\$64,208,000</b>	



## Appendix O-4 Draft Wastewater Capital Program – Additional Cost Elements

Cost Component	Complexity	Class 1 Cost Estimate Multiplier	Class 2 Cost Estimate Multiplier	Class 3 Cost Estimate Multiplier	Class 4 Cost Estimate Multiplier	Notes
Construction Unit Cost Estimate		Project specific costs based on detailed study of work methods, resources and materials. For example, material costs based on current supplier quotes. All project components costed individually and entered into Halifax Water's Schedule of Quantities and Unit Prices.	Uses features from both the unit rate method (for low risk items) and first principles method (for high risk items). Majority of project value based on first principles	More accurate unit rates, still largely inclusive "all in" rates although cost based on historic unit rates. (E.g. sewer cost per meter, cost per manhole, consider crossings etc.)	An approximate method of estimating using an inclusive "all in" unit rates. (E.g. sewer cost per meter)	
Accuracy Range	Low				30%	For information only
	Med				40%	
	High				50%	
<b>Base Construction Cost</b>						
<b>Additional Costs</b>						
Additional Construction Costs	Low				10%	Additional Construction Costs not included in unit rate, valves and crossings. Includes Mod/Demob, connections, inspection, hydrants, signage, traffic management, bonding, insurance
	Med				15%	
	High				20%	
<b>Provisional &amp; Allowance</b>						
Provisional & Allowance					10%	Covering provisional items typically included in Tender (Additional materials and labour)
<b>Soft Costs</b>						
<b>Geotechnical / Hydrogeological / Materials</b>						
Geotechnical / Hydrogeological / Materials	Low				0.50%	
	Med				1.00%	
	High				2.00%	
<b>Property Requirements</b>						
Property Requirements	Low				1.00%	
	Med				1.50%	
	High				2.00%	
<b>Consultant Engineering/Design (External)</b>						
Total Construction Cost <\$10M	\$10,000,000				15%	Design / Contract Administration (External)
Total Construction Cost \$10M - \$50M	\$50,000,000				12%	
Total Construction Cost >\$50M	\$50,000,000				10%	
<b>In House Labour/Engineering/Wages/CA (Internal)</b>						
Total Construction Cost <\$10M	\$10,000,000				8%	Engineering / Design (Internal)
Total Construction Cost \$10M - \$50M	\$50,000,000				6%	
Total Construction Cost >\$50M	\$50,000,000				4%	
<b>Project Contingency</b>						
Project Contingency	Low	10%	10%	10%	10%	Contingency will change based on high/low complexity projects. Complex project can have higher uncertainty in design costs as well as construction
	Med	10%	10%	15%	15%	
	High	10%	15%	20%	25%	
<b>Non-Refundable HST</b>						
Non-Refundable HST		1.76%	1.76%	1.76%	1.76%	