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## **2016 Capital Budget Briefing Note Basement Flooding Protection Program – Project List: 2016 to 2020**

### **Issue:**

City Council directed the General Manager of Toronto Water to submit an updated five year list of Basement Flooding Protection Program capital projects through the annual Capital Budget submission process.

### **Background:**

On September 21, 2011 City Council adopted the recommendations contained within the Wet Weather Flow Master Plan and Basement Flooding Protection Program Update Report. The report, which can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.PW7.6>, provides a description of the methodology used to prioritize and plan sewer system improvement projects for the Basement Flooding Protection Program, and contains the following recommendations:

- 1) City Council direct that the prioritization of Basement Flooding Protection Program projects be consistent with the principle that the greatest number of properties are protected as soon as possible within approved funding envelopes and coordinated with other City capital programs;
- 2) City Council direct that projects identified through completed Environmental Assessments in the 32 identified Chronic Basement Flooding Study Areas, proceed to detailed design and construction, if the cost to benefiting property, as determined during the preliminary design phase, is less than or equal to \$32,000; and
- 3) City Council direct the General Manager, Toronto Water to submit an updated five year list of projects, through the annual Capital Budget submission process, where Class Environmental Assessment studies have been completed, and the projects be prioritized in conformance with Recommendations 1 and 2, and where the first two years of projects will be identified for construction (when their preliminary designs are completed) and the following three years of projects will be subject to confirmation for implementation through the preliminary design phases where cost estimates will be refined, and the project scheduling will be coordinated with Transportation Services and other utilities.

As a result of the extreme storm event of July 8, 2013, the Basement Flooding Protection Program was expanded city wide to include 67 study areas. The staff report

that provides background information for the expansion of the Basement Flooding Protection Program to 67 study areas can be viewed at:

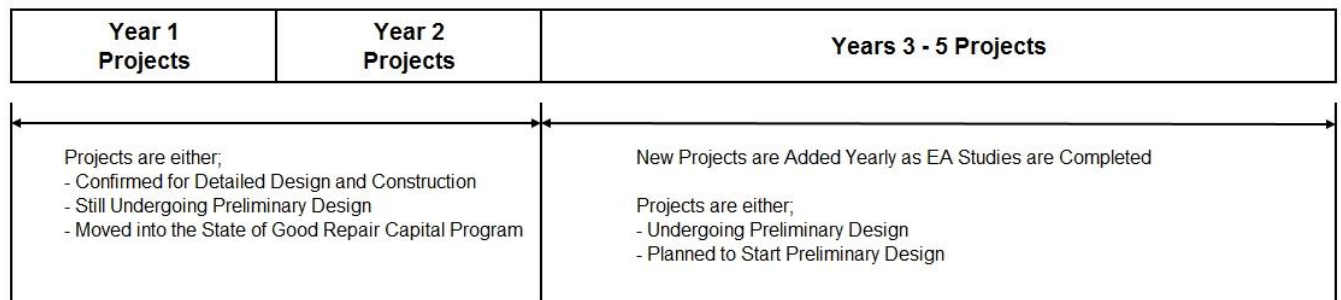
<http://www.toronto.ca/legdocs/mmis/2015/ex/bgrd/backgroundfile-77355.pdf>

Basement Flooding Protection Program projects are identified through Environmental Assessment Studies, which assess an area's drainage system capacity. Of the 67 City Council approved Basement Flooding Protection program priority study areas, Environmental Assessments for twenty six of the study areas have been completed as of September 2015, fifteen are underway with seven planned to be completed in early 2016 (Study areas 20, 21, 23-27) and eight planned for completion in late 2017 (Study areas 34 to 41).

As part of the Environmental Assessment Study process, a construction cost is estimated along with a calculation of the number of benefitting homes for each recommended project. Projects where the EA study cost estimate per benefitting home is less than the City Council approved threshold value of \$32,000 per benefitting home are moved into the preliminary design stage of the implementation program. These projects first appear in the Year 3 to Year 5 grouping of projects, as highlighted by the following schematic.

**Figure 1**

**Schematic of Basement Flooding Protection Program  
5 Year Capital Planning of Projects**



The goal of the preliminary design stage is to ensure the physical constructability of projects, and to better define project cost estimates. Through various field investigations, the design is refined and the full extent of the construction impacts can be understood (e.g. the extent of road works, and adjustments to existing utilities can be better quantified). This design refinement can result in changes to the scope and extent of the EA Study recommendations, and can result in significant project cost increases.

Projects that continue to meet the \$32,000 per benefitting home cost threshold at the completion of the preliminary design stage are moved into the detailed design stage. While it is typical for construction to start within two years following the completion of the preliminary design, projects can sometimes be delayed to allow coordination with the schedules of works being delivered by other City of Toronto divisions and utilities.

Only once projects are moved into the detailed design stage, should they be communicated to the public as being projects that will be proceeding to construction.

Projects that no longer meet the \$32,000 per benefitting home cost threshold, at the completion of the preliminary design stage, are moved from the Basement Flooding Protection Program's 5 year capital plan and into the State of Good Repair's long term capital plan (i.e. 'the Infrastructure Backlog'). These projects will be sequenced for detailed design and construction, as the replacement of the existing drainage systems becomes warranted due to poor structural condition or to address land development needs.

### **Key Points:**

- Table 1 (attached) contains a 5-year list of projects organized by year and by Ward. This list corresponds to the budget request contained within the recommended Toronto Water 2015 Capital Budget, and the 2016 to 2019 Capital Budget Plan.
- The projects identified in Table 1 fall into one of 5 categories, namely;

Under Construction Projects: These projects are projects that have already been awarded to a contractor for construction. These works are in various stages of completion.

Projects Confirmed for Construction: Preliminary Design for these projects has been completed, and it has been confirmed that the projects' preliminary design estimated costs meet the allowable maximum cost of \$32,000 per benefitting home. These projects have been coordinated with the known capital programs of Transportation Services and other utilities.

Projects Undergoing Preliminary Design: Preliminary Design for these projects has not yet been completed. For these projects, it has not yet been confirmed that the allowable maximum cost of \$32,000 per benefitting home can be met, and as a result, these projects cannot yet be confirmed for detailed design and construction. These projects are in the process of being cleared and coordinated with the capital programs of Transportation Services and other utilities

Projects Planned for Preliminary Design: Preliminary Design for these projects has not yet been initiated. These projects are in the process of being assigned to consultants to begin the preliminary design process.

Deferred Projects: Preliminary Design for these projects has been completed and the costs for these projects exceed the allowable maximum cost of \$32,000 per benefitting home. Due to their elevated costs, the detailed design and construction of these projects will be 'deferred' until such time as the remainder of the projects costing less than \$32,000 per benefitting home can be completed.

Projects No Longer Required: Through the preliminary design efforts it was determined that the construction of these projects would not be required in order to meet the enhanced service standards required by the Basement Flooding

Protection Program. This was mostly achieved by adjusting nearby sewer upgrade works to control the storm and sanitary flows.

- The scheduling of projects in the 2018 to 2020 time frame is subject to change, due to capital coordination issues and regulatory approvals which may be necessary; and this schedule will be further updated in future year Toronto Water Capital Budget submissions.
- The projects in the 5 year list have been identified from the 26 completed Environmental Assessment (EA) studies. Early in 2016, many additional projects will be added to the 5 year plan, from the seven EA studies that are scheduled for completion by the end of 2015. Preliminary design efforts for some of these new projects may be initiated prior to appearing in the next annual Basement Flooding Protection Program project list Briefing Note document. This approach will be used to ensure that as many projects as possible are initiated without delay.

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**Table 1: Basement Flooding Protection Program – Project list: 2016 – 2020**

**2015 and Earlier Projects**

**Under Construction Projects - Completion is expected in 2015**

<b>Project #</b>	<b>Location</b>	<b>Project Description</b>	<b>Ward</b>	<b>Councillor</b>	<b>Preliminary Design Cost Estimate (\$)</b>	<b>Cost / Benefitting Home</b>
11-01	Evangeline Crt.	Storm and Sanitary Sewer Replacements / Upgrades	1	Crisanti	\$395,000	\$23,235
11-02	Kidron Valley Dr.	Storm and Sanitary Sewer Replacements / Upgrades	1	Crisanti	\$467,000	\$23,350
10-02	Martin Grove Rd. Don Albert Rd. Northglen Ave.	Storm Sewer Upgrades	3	Holyday	\$1,679,000	\$7,957
10-03	Glen Meadow Crt.	Storm Sewer Upgrades	3	Holyday	\$585,000	\$19,500
12-01 (Construction began in 2013)	Seacliff Blvd Navenby Cres. Gracedale Blvd. Cherrylawn Ave. Hasbrooke Dr. Finch Ave. W. Crimscott Rd. Pearldale Ave. Easement	Storm and Sanitary Sewer Replacements / Upgrades	7	Mammoliti	\$26,239,668	\$41,064 <sup>1</sup>
11-03	Dorward Dr. Silverstone Dr. Mount Olive Dr.	Storm and Sanitary Sewer Replacements / Upgrades	8	Perruzza	\$3,866,000	\$15,341
14-08	Fulwell Cres. Easement.	Storm Sewer Replacements	8	Perruzza	\$1,534,051	\$22,233
3-01 B	Keele St. Yore Rd. Lonsborough Ave. Trethewey Dr.	Storm Sewer Replacements / New Storm Sewer	12	Di Giorgio	\$9,321,000	\$40,351 <sup>2</sup>
3-02 A	Old Weston Rd. Hillary Ave. Rosethorn Ave. Silverthorn Ave. Rowntree Ave.	Storm and Sanitary Sewer Replacements / Upgrades	12	Di Giorgio	\$7,892,000	\$13,993
16-01	North Park Ravine	Sanitary Sewer Replacements / Inline Storage	12	Di Giorgio	\$1,181,000	N/A <sup>3</sup>
16-13	Queens Dr.	Storm and Sanitary Sewer Replacements / Upgrades	12	Di Giorgio	\$257,000	\$5,244
16-26	Blue Springs Rd. Rustic Rd. Culford Rd.	Storm Sewer Upgrades	12	Di Giorgio	\$1,207,000	\$30,990
16-31	Jane St.	Storm Sewer Replacements / Upgrades	12	Di Giorgio	\$670,600	\$10,160
16-40	Woolton Cres. Culford Rd	Storm Sewer Replacements / Upgrades	12	Di Giorgio	\$332,000	\$10,200

16-41	Cavern Crt.	Storm Sewer Upgrades	12	Di Giorgio	\$240,730	\$30,091
16-06	Paul David St. Cartwright Ave.	Additional Inlet Capacity & Storm Sewer Upgrades / Offline storm Storage / Watermain replacement	15	Colle	\$3,630,000	\$29,040
16-07	Jane Olser Blvd.	Storm Sewer Replacements / Upgrades	15	Colle	\$338,000	\$21,125
3-04 (Construction began in 2013)	Charlies Caccia Tank Charles Caccia Park Nairn Ave.	Combined Sewer Storage Replacement	17	Palacio	\$7,651,124	\$19,770
32-03	Ivy Ave.	New Storm Sewer	30	Fletcher	\$380,000	\$31,666
32-16 A	Eastern Ave.	Storm Sewer Replacement	32	McMahon	\$1,171,014	\$9,678

### **2016 - Year 1 Projects**

#### **Under Construction Projects - Construction started in 2015 or earlier and continuing into 2016**

<b>Project #</b>	<b>Location</b>	<b>Project Description</b>	<b>Ward</b>	<b>Councillor</b>	<b>Preliminary Design Cost Estimate (\$)</b>	<b>Cost / Benefitting Home</b>
14-07	Derrydown Rd. Paulvale Cres. Romfield Dr. Villata Gdns. Romfield Dr. E	Storm Sewer Replacements / Upgrades	8	Perruzza	\$6,466,000	\$28,235
16-23 B	Alladin Ave. Seabrook Ave. Rustic Rd. Culford Rd Maple Leaf Dr.	Storm and Sanitary Sewer Replacements / Upgrades	12	Di Giorgio	\$2,431,000	\$18,500
16-28	Beckett Ave. Falstaff Ave. Fleetwood Ave. Maidstone St.	Storm Sewer Upgrades / Additional inlet storage	12	Di Giorgio	\$2,672,132	\$31,811
16-29	Rustic Park.	Storm Dry Pond	12	Di Giorgio	\$367,000	\$3,248
16-30	Maple Leaf Park.	Engineered Wetland	12	Di Giorgio	\$618,000	\$30,990
16-32	Dante Rd. Demarco Blvd.	Sanitary Sewer Upgrades/ Replacements / In-line Storm Storage	12	Di Giorgio	\$960,000	\$19,200
16-37	Culford Rd. Dante Rd. Gracefield Park Easement	Storm Sewer Upgrades / Additional Inlet Storage / Storm Dry Pond	12	Di Giorgio	\$814,000	\$9,465
16-38	Sorlyn Ave.	Storm Sewer Replacements / Upgrades	12	Di Giorgio	\$343,000	\$19,055
16-27	Blue Springs Rd. Brief Rd. Falstaff Ave.	Storm Sewer Upgrades / Additional Inlet Storage	12	Di Giorgio	\$1,739,000	\$30,990

29-20	Loganberry Cres. Easement	Storm Sewer Replacements / New Storm Sewer	24	Shiner	\$741,000	\$28,500
31-12	Stonebridge Blvd.	Storm Sewer Upgrades/ Trench Drain Installation	39	Karygiannis	\$383,000	\$26,320
31-18	Robintide Crt. Bridlewood Blvd.	Storm Sewer Replacements / Upgrades	40	Kelly	\$677,097	\$29,439

**2016 - Year 1 Projects**  
**Projects Confirmed to Start Construction in 2016**

Project #	Location	Project Description	Ward	Councillor	Preliminary Design Cost Estimate (\$)	Cost / Benefitting Home
14-03	Conamore Cres. Dundee Dr. Hucknall Rd. Madron Cres. Derrydown Rd. Catford Rd. Killamarsh Dr. Council Cres. Sentinel Rd.	Storm Sewer Replacements / New Storm Sewer	8	Perruzza	\$15,157,000	\$46,925 <sup>4</sup>
14-05	Gosford Blvd. Fletcherdon Cres. Hullmar (east of Gosford) York Gate Blvd. Artech Crt Secroft Cres. Jane St. Shoreham Dr.	Storm Sewer Replacements / Upgrades	8	Perruzza	\$7,003,000	\$31,688
14-09	Blacksmith Cres. Hullmar Dr. Skye Crt. Bamford Cres. Easement Hissey Cres. Janet St. Wheelwright Cres.	Storm Sewer Replacements	8	Perruzza	\$8,415,000	\$23,055
14-10	Kennerly Crt.	New Storm Sewer	8	Perruzza	\$1,540,000	\$66,957 <sup>4</sup>
18-02	Grey Rd	Storm and Sanitary Sewer Replacements / Upgrades	16	Greb	\$515,600	\$5,926
29-07 A	Bestview Dr. Harrington Cres. Kentland Cres. Goldenwood Rd. Easement	New Storm Sewer, Trench Drain Installation	24	Shiner	\$6,994,826	\$31,508
30-18	Reiber Cres Pineway Blvd	Storm Sewer Replacements / New Storm Sewer	24	Shiner	\$591,000	\$5,794

**2017 - Year 2 Projects**

**Projects Confirmed to Start Construction in 2017**

Project #	Location	Project Description	Ward	Councillor	Preliminary Design Cost Estimate (\$)	Cost / Benefitting Home
29-02 C	Kempsell Cres Houston Cres Hobart Dr Deerford Rd Ashtead Pl Easement	Storm Sewer Replacements / New Storm Sewer	33	Carroll	\$9,013,378	\$20,625

**2017 - Year 2 Projects**

**Projects Undergoing Preliminary Design - Targeted construction start year of 2017**

Project #	Location	Project Description	Ward	Councillor	EA Study Cost Estimate (\$)	Cost / Benefitting Home
14-12	Derrydown Rd. Candlewood Cres. Lamberton Blvd. Clayhall Cres. Keegan Cres.	Storm Sewer Replacements / Upgrades	8	Perruzza	\$5,080,000	\$31,358
13-01	Friary Crt.	Storm Sewer Replacements	9	Augimeri	\$97,034	\$6,065
19-03	Westgate Blvd.	New Storm Sewer / Storm & Sanitary Sewer Upgrades	10	Pastemak	\$12,853,700	\$13,986
19-06	Ellison Ave. Westgate Blvd.( not Westgate Ravine) Garratt Blvd. Timberlane Dr.	Storm Sewer Upgrade / Sanitary Sewer Upgrades / New Sanitary Sewer / Sanitary In-line Storage	10	Pastemak	\$11,303,600	\$18,115
19-11	Clifton Ave. Maxwell St. Hove St. Shaftesbury St. Overbrook Pl. Beaver valley Rd.	Sanitary Sewer Upgrades / New Sanitary Sewers	10	Pastemak	\$1,917,600	\$3,938
19-16	Bathurst St. Palm Dr. Bonnacord Dr. Delia Crt. Laurelcrest Ave. Erica Ave. Clanton Park Rd. Romney Rd. Collinson Blvd. Midvale Rd. Raeburn Ave.	New Storm Sewers/ Storm Sewer Upgrades Storm Storage Sewer	10	Pastemak	\$3,876,200	\$14,966
17-01	Dufferin St Mulholland Ave	Sanitary Sewer Replacement / Sanitary Sewer upgrade	15	Colle	\$320,000	\$13,333
17-02	Playfair Ave.	Sanitary Sewer Upgrade	15	Colle	\$244,000	\$4,436



17-05	William R Allen Rd. N	Sanitary In-Line Storage	15	Colle	\$994,200	\$4,213
17-06	Coldstream / Glenmount Ave. / Bathurst St.	New Storm Sewer / Underground Storage	15	Colle	\$3,077,500	\$25,225
17-07	Claver Ave.	New Storm Sewer	15	Colle	\$74,300	\$5,715
17-08	Marlee Ave	Storm Sewer Upgrade	15	Colle	\$105,200	\$3,757
17-09	Marlee Ave. Enid Cres. Marlee Ave. Stayner Ave.	Storm Sewer Upgrade / New Storm Sewer / Underground Storage	15	Colle	\$1,292,500	\$9,718
17-10	Glen Long Ave.	Storm Underground Storage	15	Colle	\$990,500	\$21,533
17-12	Prue Ave	New Storm Sewer for Storage	15	Colle	\$368,100	\$24,540
17-13	Hillhurst Blvd.	Storm Inline Storage (Superpipe)	15	Colle	\$403,900	\$10,356
18-10	Wasdale Cres.	Storm Sewer Inline Storage	15	Colle	\$1,321,900	\$15,552
17-04	Ruby Cres. Cortleigh Blvd.	Sanitary Sewer Upgrades	16	Carmichael Greb	\$289,600	\$17,035
17-14	Alexandra Wood.	Storm Sewer Upgrade	16	Carmichael Greb	\$189,900	\$14,608
18-04	Dunblaine Ave.	Storm Sewer Inline Storage	16	Carmichael Greb	\$1,668,700	\$17,943
25-01	Franklin Ave. Florence Ave. Pewter Rd. Cameron Ave. Poyntz Ave. Radine Ave. Poyntz Ave. Johnston Ave.	Sanitary Sewer Replacement/ Storm Sewer Replacements	23	Fillion	\$4,821,000	\$19,055
29-12	Easement James Gray Dr.	Storm Sewer Replacements / Upgrades	24	Shiner	\$980,000	\$12,098
32-04	Eastern Ave. Winnifred Ave. Mosley St. Leslie St. Easement	Storm Sewer upgrades	30	Fletcher	\$1,886,868	\$11,793
32-18	Ravina Cres. Earl Grey Rd. Shudell Ave. Hunter St.	New storm sewer	30	Fletcher	\$998,648	\$14,473
32-19	Gerrard St E. First Ave.	New Storm Sewer and Combined Sewer Upgrades	30	Fletcher	\$256,726	\$4,209
32-20	Pape Ave.	New Storm Sewer	30	Fletcher	\$419,438	\$2,330
32-21	Queen St E.	New Storm Sewer and	30	Fletcher	\$2,009,746	\$9,949

	Leslie St. Jones Ave. Coady Ave.	Combined Sewer Upgrades				
32-23	Morse St.	Storm Sewer upgrades	30	Fletcher	\$440,166	\$6,379
32-24	Booth Ave. Empire Ave	Storm Sewer Upgrades	30	Fletcher	\$647,393	\$4,434
32-25	Saulter St. Eastern Ave.	New Storm Sewer	30	Fletcher	\$613,927	\$11,162
32-17	Alton Ave. Queen St E. Laing St.	Combined Sewer Upgrades	30 / 32	Fletcher / McMahon	\$532,782	\$8,325
01-01	Joanith Dr. Glenwood Cr. Westview Blvd. St. Clair Ave E. Amsterdam Ave. O'connor Dr. Peard Rd. Taylor Creek Trl. Valor Blvd. Topham Rd. Squires Ave. Furnival Rd. St. Columba Pl. Merritt Rd. Glenburn Ave.	Storm Sewer Replacements, New Storm Sewers, Storm Sewer Inline Storage	31	Davis	\$15,547,950	\$12,850
32-05	Glen Manor Dr.	New Storm Sewer	32	McMahon	\$178,200	\$4,816
32-06	Rainsford Rd.	Combined Sewer Upgrades	32	McMahon	\$35,323	\$1,039
32-07	Elmer Ave.	Storm Sewer upgrades	32	McMahon	\$120,815	\$6,041
32-08	Queen St. E	Install Diversion Sewers	32	McMahon	\$26,680	\$834
32-10	Lake Shore Blvd E.	New Storm Sewer / Storm Sewer Replacements	32	McMahon	\$1,132,380	\$18,873
32-11	Woodbine Ave. Kewbeach Ave. Buller Ave. Kippendavie Ave. Kenilworth Ave.	Storm and Combined Sewer Upgrade	32	McMahon	\$1,633,693	\$9,610
32-15	Kerr Rd.	Storm Sewer Upgrades	32	McMahon	\$103,596	\$2,302
32-16B	Minto Ave.	New Storm Sewer Installation, Storm Sewer Upgrades, Install Backflow Valve, Sanitary Sewer Upgrades	32	McMahon	\$1,277,274	\$10,555

**2018, 2019, 2020 - Year 3, 4, and 5 Projects**

**Projects Undergoing Preliminary Design - Targeted construction start in 2018, 2019 & 2020**

Project #	Location	Project Description	Ward	Councillor	EA Study Cost Estimate (\$)	Cost / Benefitting Home
03-03	Dynevor Rd. Hanson Rd. Blandford St. Glenholme Ave. Genessee Ave. Lauder Ave. Northcliff Blvd. Westmount Ave. Martin St. Holmesdale Rd. Ennerdale Rd. Chudleigh Rd. Harvie Ave. Kirknewton Rd. Dufferin St. Allenvale St. Easement Kitchener Ave. Eglinton Ave. W. Snider Ave. Caledonia Rd. Croham Rd. Bowie Ave. Little Blvd. Chamberlain Ave. Gilbert Ave. Dunraven Dr. Silverthorn Ave. Dunraven Dr. Hyde Ave. Nashville Ave. Dynevor Rd. Rogers Rd.	New Storm Tunnels / Storm Sewers / Combined Sewer Replacements	12,/15/17	DiGiorgio/Colle/Palacio	\$157,000,000	\$60,947 <sup>5</sup>

**2018, 2019, 2020 - Year 3, 4, and 5 Projects**

**Projects Planned for Preliminary Design (targeted construction start in 2018, 2019 & 2020)**

Project #	Location	Project Description	Ward	Councillor	EA Study Cost Estimate (\$)	Cost / Benefitting Home
8-03	Beaverbrook Ave.	Sanitary Sewer Replacements	3	Holyday	\$627,900	\$3,651
9-01	Renforth Dr. Allonsius Dr. Windust Gt. Burnhamthorpe Rd. Tranquil Dr. Boreal Rd.	Sanitary / Storm Sewer Replacements /New Storm Sewer	3	Holyday	\$29,113,900	\$53,518 <sup>6</sup>

	Saturn Rd. Easements Renforth Dr. Carsbrooke Rd. Crendon Dr. Glos Rd. Botley Rd. Elderfield Cres.					
8-04 A & B	Thorncrest Rd. Kipling Ave. Great Oak Dr.	Sanitary / Storm Sewer Replacements / New Sanitary Sewer	4	Campbell	\$2,826,100	\$23,165
13-02	Larchwood Rd. Laura Rd. Frith Rd. Ryewood Dr. Jane St. Lomar Dr. Sheppard Ave. W. Snowood CRT.	Storm Sewer Replacements / New Storm Sewer / Trench Drain Installation / New Overland Shallow Storm Sewer	7	Mammoliti	\$13,292,367	\$23,361
15-02	Forthbridge Cres. Lexfield Ave. Calvington Dr.	Storm Sewer Replacements	9	Augimeri	\$770,027	\$5,969
15-05	Exbury Rd. Troutbrooke Dr. Buxton Rd. Peacham Cres.	Storm Sewer Replacements/ New Storm Sewers	9	Augimeri	\$1,276,722	\$12,896
15-06	Camborne Ave.	Storm Sewer Replacement	9	Augimeri	\$658,361	\$6,856
15-08	Clevedon St. Lexfield Ave. Richard Clark Dr. Tumpane St. Letchworth Cres. Deevale Rd. Deevale Rd. Heathrow Dr.	Storm Sewer Replacements / New Storm Sewer	9	Augimeri	\$2,879,643	\$11,427
15-09	Epsom downs Dr. Tumpane St.	Storm Sewer Replacements	9	Augimeri	\$1,475,623	\$11,012
15-10	William Cragg Dr. Dana Ave. Westcliffe Rd. Richard Clark Dr. Tumpane St.	Storm Sewer Replacements	9	Augimeri	\$2,062,009	\$12,573
15-11	Jane St. Heathrow Dr.	Storm Sewer Replacements	9	Augimeri	\$546,214	\$12,702
15-12	Troutbrooke Dr. Monclova Rd. Jane St.	Storm Sewer Replacements	9	Augimeri	\$1,374,245	\$10,411
19-04	Honiton St. Cavotti Cres.	Storm Sewer Upgrade / Inline Storage	10	Pastemak	\$936,600	\$22,844

19-08	Barksdale Ave. Wilmington Ave.	Storm Sewer Upgrade	10	Pastemak	\$283,100	\$4,718
19-12	Wilmington Ave. Maxwell St. Elder St.	New Storm Sewers	10	Pastemak	\$2,051,500	\$12,068
19-13	Tillplain Rd. Waterloo Ave. Cocksfield Ave. Wilmington Ave. Searle Ave. Hove St. Shaftesbury St. Baintree Crt. Bryant St. Brighton Ave. Goddard St. Wilson Heights Blvd. Tokay Crt. Codsell Ave. Amos Cres.	Storm Sewer Upgrades/ New Sanitary Sewer	10	Pastemak	\$12,880,300	\$14,703
19-14	Brockington Cres.	New Storm Sewer for Storage	10	Pastemak	\$487,000	\$11,326
19-15	Wild Gingerway	Storm Sewer Upgrades	10	Pastemak	\$83,700	\$1,993
19-17	Tresillian Rd. Romney Rd.	New Storm Sewer for Storage	10	Pastemak	\$1,335,200	\$4,526
19-18	Ridley Blvd. Armour Blvd.	Storm Sewer Upgrades	10	Pastemak	\$110,700	\$1,419
19-19	Sheppard Ave W. Reiner Rd. Banting Ave.	Storm Sewer Upgrade/ New Storm Sewer for Storage	10	Pastemak	\$2,056,800	\$23,916
19-20	Bainsbridge Ave. Faywood Blvd. Harlock Blvd.( at Ellison Park)	New Storm Sewers for Storage	10	Pastemak	\$3,094,500	\$25,788
19-22	Tillplain Rd.	Storm Sewer Upgrades	10	Pastemak	\$59,600	\$1,923
19-23	Bainbridge Ave. Sandale Gdns. Wilmington Ave. Reiner Rd. Alexis Blvd. Bathurst St. Harlock Blvd. Cocksfield Ave. Maxwell St.	Sanitary Sewer Upgrade / Storm Sewer Upgrade/ New Storm Sewer for Storage	10	Pastemak	\$17,091,500	\$21,717
19-24	Wilson Ave. Wilson Heights Blvd. Goodwill Ave. Tippett Rd. Model Ave.	Storm Sewer Upgrades/ ICI Parking Lot Storage Outlet	10	Pastemak	\$1,810,600	\$22,080

4-13	Hilldale Rd.	New Storm Sewer	11	Nunziata	\$2,071,000	\$28,370
6-01	Weston Rd.	Sanitary Sewer Replacement	11	Nunziata	\$190,000	\$3,065
6-02	Sykes Ave.	Sanitary Sewer Replacements/ New Storm Sewer	11	Nunziata	\$165,000	\$6,600
6-03	Pellatt Ave.	Sanitary Sewer Replacement	11	Nunziata	\$150,000	\$7,500
6-04	Robert St. Church St. Grattan St. Joseph St. Queens Dr. Patika Ave. Macdonald Ave. Vimy Ave. Wright Ave. King St. William St. Pine St. Elm St. John St.	Storm / Sanitary / Combined Sewer Replacements/ New Storm Sewers	11	Nunziata	\$6,886,000	\$9,108
6-06	Centre Rd. Edmund Ave.	Sanitary Sewer Replacements	11	Nunziata	\$377,000	\$13,464
6-07	Clouston Ave.	New Storm Sewer	11	Nunziata	\$135,000	\$16,875
6-08	Wendell Ave. Gary Dr. Queenslea Ave. Walwyn Ave. Lamont Ave. Langside Ave. Woodward Ave.	New Storm Sewer/ Storm / Sanitary Sewer Replacements	11	Nunziata	\$2,199,000	\$21,772
16-12	Gracefield Ave Keele St	Storm Sewer Upgrades	12	Di Giorgio	\$229,200	\$22,920
4-01	Humbercrest Blvd.	New Storm Sewer	13	Doucette	\$283,000	\$4,288
4-02	Watson Ave.	New Storm Sewer	13	Doucette	\$317,000	\$4,117
4-03	Durie St.	New Storm Sewer	13	Doucette	\$211,000	\$3,403
5-01	Riverview Gdns. Halford Ave. Old Mill Dr. Catherine St.	Storm Sewer Replacements	13	Doucette	\$1,299,000	\$8,777
16-45	Tycos Dr. Glencairn Ave. Easement	Sanitary Sewer Upgrade	15	Colle	N/A	N/A <sup>3</sup>
17-03	Dalemount Ave	Sanitary Sewer Upgrade	15	Colle	\$97,100	\$4,222
18-01	Prince Charles Dr.	Sanitary Sewer upgrades	15	Colle	\$131,400	\$3,754

18-11	Ameer Ave. Sultana Ave. Baycrest Ave.	Storm Sewer Upgrade / New Storm Sewer / Storm In-line/ Off -line Storage	15	Colle	\$5,920,100	\$52,529 <sup>4</sup>
17-15	Hillhurst Blvd. Prue Ave. Viewmount Ave. Hillmount Ave. Dalemount Ave. Chaplin Cres. Glencairn Ave. Glen Park Ave.	Storm Sewer Upgrades / New Storm Sewers Storm Underground Storage	15/16	Colle/Carmichael Greb	\$40,914,000	\$72,789 <sup>4</sup>
18-03	Ledbury St.	Storm Sewer Upgrade	16	Carmichael Greb	\$166,000	\$15,091
18-05	Barse St.	Storm Sewer Upgrade/ New Storm Sewer	16	Carmichael Greb	\$113,500	\$5,405
18-06	St. Germain Ave.	Storm Sewer Upgrade	16	Carmichael Greb	\$134,700	\$16,838
18-07	Glengarry Ave.	Storm Sewer Inline Storage	16	Carmichael Greb	\$453,500	\$14,629
18-08	Douglas Ave.	Storm Sewer Upgrade	16	Carmichael Greb	\$58,900	\$6,544
18-09	Fairlawn Ave.	Storm Sewer Upgrade	16	Carmichael Greb	\$51,500	\$1,392
18-12	Brooke Ave.	New Storm In-line Storage	16	Carmichael Greb	\$2,093,400	\$41,868 <sup>4</sup>
19-25	Mcgillivray Ave. Carmichael Ave. Marquette Ave.	Storm Sewer Upgrades / New Storm Sewers	16	Carmichael Greb	\$3,535,000	\$5,245
02-01	Rykert Crescent Broadway Ave.	Storm Sewer Replacements, New Storm Sewers	26	Burnside	\$690,120	\$14,084
02-02	Eglinton Ave. East	Sanitary Sewer Upgrades	26	Burnside	\$980,000	\$29,818
02-03	Donlea Drive Bessborough Drive Rumsey Road	New Storm Sewers	26	Burnside	\$2,161,250	\$8,750
02-04	Vanderhoof Ave. Hanna Road Fleming Crescent Sutherland Drive MacNaughton Road	New Storm Sewers	26	Burnside	\$1,547,659	\$6,586
02-05	Sutherland Drive Markham Ave.	New Storm Sewers	26	Burnside	\$795,825	\$10,202
02-07	Mcrae Drive	Storm sewer Replacements / New Storm Sewers	26	Burnside	\$297,675	\$5,132
02-08	Rumsey Road Hanna Road	New Storm Sewers	26	Burnside	\$282,488	\$12,282
32-22	Carlaw Ave	Combined Sewer Replacement	30	Fletcher	\$1,234,913	\$26,845
32-14	Craven Rd. Rhodes Ave. Queen St E.	New Storm Sewer and Combined Sewer Upgrades	30 / 32	Fletcher / McMahon	\$2,449,387	\$9,568

32-09	Hambly Ave.	Storm Sewer Upgrades	32	McMahon	\$194,666	\$2,949
32-12	Waverley Rd.	New Storm Sewer and bypass	32	McMahon	\$215,679	\$6,740
32-13	Lee Ave.	New Storm Sewer and bypass	32	McMahon	\$232,706	\$10,118
32-26	Victoria Park Ave.	Combined Sewer Upgrades	32	McMahon	\$497,248	\$6,294
32-27	Kingswood Rd. Queen St E. Neville Park Blvd.	New Storm Sewer and Storm Sewer Upgrades	32	McMahon	\$989,376	\$17,667
22-01	Pitcairn Cres.	Storm Sewer Replacements	34	Minnan-Wong	\$126,506	\$1,040
22-02	Sundial Cres. Sulkara Crt. Sweeney Dr.	Storm Sewer Replacements	34	Minnan-Wong	\$1,014,543	\$6,855
22-04	Ruscica Dr. Victoria Park Ave.	New Storm Sewer/ Storm Sewer Replacement	34	Minnan-Wong	\$3,826,256	\$18,220
22-07	Tinder Cres. Sloane Ave. Trophy Dr. Eccleston Dr. Elvaston Dr.	Storm Sewer Replacements	34	Minnan-Wong	\$3,580,256	\$17,049
22-09	Eccleston Dr. Swift Dr.	Storm Sewer Replacements	34	Minnan-Wong	\$530,254	\$16,570
22-10	Anewen Dr. Woodthorpe Rd.	Storm Sewer Replacements	34	Minnan-Wong	\$1,145,860	\$17,361
22-15	Carnforth Rd. Sweeney Dr. Daleside Cres. Teak Ave.	Storm Sewer Replacements	34	Minnan-Wong	\$4,777,378	\$17,759
22-17	Knighton Dr.	Storm Sewer Replacements	34	Minnan-Wong	\$586,670	\$17,130
22-18	Cobham Cres.	Storm Sewer Replacement	34	Minnan-Wong	\$120,172	\$17,170
22-21	Salvi Crt. Ruscica Dr.	Storm Sewer Replacements	34	Minnan-Wong	\$589,166	\$17,300
22-22	Murellen Cres.	Storm Sewer Replacements	34	Minnan-Wong	\$246,246	\$17,650
33-01	Avalon Blvd.	New Storm Sewers	36	Crawford	\$500,000	\$19,231
33-03	Kennedy Rd. Haslam St. Malta St. Preston St. Craiglee Dr.	New storm sewers	36	Crawford	\$2,500,000	\$21,739
33-05	Chine Dr. Montvale Dr. St Clair Ave E	New Sanitary Sewer for Storage	36	Crawford	\$2,900,000	N/A <sup>7</sup>



**Projects moved to the State of Good Repair Program  
(i.e. Preliminary Design Costs > \$32,000 per benefitting home)**

Project #	Location	Project Description	Ward	Councillor	Preliminary Design Cost Estimate (\$)	Cost / Benefitting Home
16-16	Wilson Ave. at Keele St.	Storm Sewer Replacements / Upgrades	9	Augimeri	\$970,960	\$80,913
16-10	Circle Ridge Treelawn Pkwy North Park Dr	Additional Inlet Capacity & Storm Sewer Upgrades	12	Di Giorgio	\$1,169,000	\$48,708
16-05	Bridgeland Ave.	Additional Inlet Capacity & Storm Sewer Upgrades	15	Colle	\$1,386,000	\$39,600
29-06 A	Newton Dr. Conacher Dr Bayview Ave.	Storm and Sanitary Sewer Upgrades, Trench Drain and Sub-surface Sanitary Storage Installation	24	Shiner	N/A	N/A <sup>8</sup>
29-19	Woodthrust Crt. Page Ave. Easement	Trench Drain Installation & Storm Sewer Upsizing	24	Shiner	\$1,024,000	\$53,895
29-21	Beardmore Cres. Easement	Trench Drain Installation & Storm Sewer Upsizing	24	Shiner	N/A	N/A <sup>9</sup>
29-25	Saddletree Cres. Easement	Trench Drain Installation & Storm Sewer Upsizing	24	Shiner	N/A	N/A <sup>9</sup>
29-26	Janus Crt.	Trench Drain Installation & Storm Sewer Upsizing	24	Shiner	\$876,100	\$67,392
29-05	Alamosa Dr. Alamosa St. Geraldton Cres. Allview Cres. Appian Dr. Pineway Blvd. Easement	Trench Drain Installation & Storm Sewer Upsizing, Inline Sanitary Storage and Sewer Replacements	33	Carroll	\$5,565,000	\$60,489
29-11	Angus Dr Silas Hill Dr Seneca Hill Dr Easement	Storm Sewer Replacements / Upgrades	33	Carroll	\$29,532,763	\$100,794
29-28	Parkway Forest Dr at Capella Starway	Regrading of Intersection (surface flow reduction)	33	Carroll	N/A	N/A <sup>9</sup>
29-30	Longhope Pl. Easement	Trench Drain Installation & Storm Sewer Upsizing	33	Carroll	N/A	N/A <sup>9</sup>
30-05	Kingslake Rd. BaronessCres. Sandbourne Cres.	Storm Sewer Replacements / Upgrades & Sanitary Sewer Inline Storage	33	Carroll	\$8,811,800	\$63,854
30-17	Snapdragon Dr. Clematis Rd. Brian Dr.	Storm Sewer Upgrades	33	Carroll	\$3,000,000	\$75,000

	Sheppard Ave E.					
31-13	Orangewood Cres.	Storm Sewer Replacements / Upgrades	40	Kelly	\$590,000	\$41,800

### Projects that are no longer required<sup>10</sup>

Project #	Location	Project Description	Ward	Councillor	EA Study Cost Estimate (\$)	Cost / Benefitting Home
16-39	Culford Rd. South of Woolton	Storm Sewer Replacements / Upgrades	12	Di Giorgio	N/A	N/A
16-43	Flamborough Dr. west of Keele	Sanitary Sewer Replacements / Upgrades	12	Di Giorgio	N/A	N/A
31-04	Hawkshead Cres.	Storm Sewer Replacements / Upgrades	39	Karygiannis	N/A	N/A

#### Notes:

1. Design and construction for this project was committed to prior to the implementation of the current cost threshold of \$32,000 per benefitting home, and as such it is proceeding to completion.
2. Even though this project exceeds \$32,000 per benefitting home, it is proceeding to construction to allow completion in advance of the Eglinton Crosstown LRT project. The cost estimate provided is the combined cost estimate for Assignments 3-01 A, and 3-01 B. The project has been split into parts to coordinate with the Metrolinx project schedule.
3. This project was initiated due to the poor structural condition of the existing sewers, and as such the \$32,000 per benefitting home rule is not applicable.
4. Even though this project exceeds \$32,000 per benefitting home, the project is proceeding into detailed design and construction as the existing 2 year level of service is not being provided by the existing sewer system.
5. As this project will provide both basement flooding protection and combined sewer overflow reduction to Black Creek, it is proceeding through preliminary and detailed design even though it exceeds the \$32,000 per benefitting home threshold.
6. A detailed Infiltration / Inflow study, as recommended by the Area 9 EA study, was initiated in 2015. The goal of this study will be to adjust the scope of construction works required to bring the costs down below the allowable threshold of \$32,000 per benefitting home.
7. The number of benefitting homes is not yet available, but based on preliminary information, the cost per benefitting home is expected to be less than \$32,000 per benefitting home.
8. This project cost substantially exceeds \$32,000 as defined by the EA study. A review was undertaken to determine whether a portion of the recommended upgrades could proceed to coincide with required State of Good Repair works. This review noted that the required basement flooding protection program infrastructure upgrades would be needed along sewer routes other

than the sewers requiring State of Good Repair works. As a result of this and the project cost, the project has been deferred.

9. These projects were determined to be not constructable and the design did not proceed sufficiently to create updated cost estimates. A re-analysis of possible solutions is required to develop a constructable solution that can be reassigned to Engineering and Construction Services for implementation.
10. Due to analysis refinements and/or the installation of other nearby upgrades, these works are no longer needed to meet the basement flooding protection level of service targets.