



2019 Development Charges Background Study – Draft Capital Listings

City of Hamilton

Development Charges Stakeholders Sub-Committee

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1. Services Related to a Highway



1.1 Services Related to a Highway

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Services Related to a Highway

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Length	Capital Improvement	Gross Capital Cost Estimate (2019\$)	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
	2019-2031											50%	50%
	AEGD Projects												
1	Airport Road - Upper James Street to East Cargo Road	2019-2022	1.07	2r-3i	4,437,000	-		4,437,000	1,775,000	-	2,662,000	1,331,000	1,331,000
2	Airport Road - East Cargo Road to Terminal Access Road	2019-2022	0.32	2r-4u	2,423,000	-		2,423,000	969,000	-	1,454,000	727,000	727,000
3	Airport Road - Terminal Access Road to Glancaster Road	2023-2031	1.68	2r-3i	7,325,000	-		7,325,000	2,930,000	-	4,395,000	2,197,500	2,197,500
4	Airport Road* - Butter Road to Glancaster Road	2032-2041	0.86	2r-4u	7,470,000	7,470,000		-	-	-	-	-	-
5	Book Road - Fiddler's Green Road to Highway 6	2032-2041	0.99	2r-4u	6,340,000	6,340,000		-	-	-	-	-	-
6	Book Road* - Highway 6 to Southcote Road	2032-2041	1.11	2r-4u	6,158,000	6,158,000		-	-	-	-	-	-
7	Book Road - Highway 6 to Southcote Road	2032-2041	1.11	4u-6u	6,421,000	6,421,000		-	-	-	-	-	-
8	Book Road - Collector 2W to Glancaster Road	2032-2041	0.59	2r-2u	1,984,000	1,984,000		-	-	-	-	-	-
9	Butter Road East - Airport Road to Glancaster Road	2023-2031	0.97	2r-2u	3,961,000	-		3,961,000	594,000	-	3,367,000	1,683,500	1,683,500
10	Butter Road East* - Highway 6 to Airport Road	2023-2031	0.37	2r-4u	3,428,000	3,428,000		-	-	-	-	-	-
11	Butter Road East - Fiddlers Green Road to Highway 6	2032-2041	0.94	2r-4u	8,708,000	8,708,000		-	-	-	-	-	-
12	Carluke Road East - Fiddler's Green Road to Glancaster Road	2032-2041	1.05	2r-4u	6,291,000	6,291,000		-	-	-	-	-	-
13	Collector Road 6N (oversizing) - Glancaster Road to Collector Road 6E	2032-2041	1.93	4u	2,896,000	2,896,000		-	-	-	-	-	-
14	Collector Road 6N (oversizing) - Collector Road 6E to Collectror Road 7E	2032-2041	2.56	4u	3,635,000	3,635,000		-	-	-	-	-	-
15	Collector Road 7E (oversizing) - Collector 6N to Upper James Street	2032-2041	0.58	4u	1,312,000	1,312,000		-	-	-	-	-	-
16	Dickenson Road - Glancaster Road to Upper James Street	2025	2.90	2r-4u	14,282,000	-		14,282,000	2,142,000	-	12,140,000	6,070,000	6,070,000
17	Dickenson Road Extension - Southcote Road to Smith Road	2019-2022	0.42	4u	3,195,000	-		3,195,000	-	-	3,195,000	1,597,500	1,597,500
18	Dickenson Road Extension - Southcote Road to Smith Road	2032-2041	0.42	4u-6u	2,435,000	2,435,000		-	-	-	-	-	-
19	Dickenson Road Extension - Smith Road to Glancaster Road	2023-2031	0.80	4u	6,149,000	-		6,149,000	-	-	6,149,000	3,074,500	3,074,500
20	Garner Road* - Fiddler's Green Road to Glancaster Road	2023-2031	4.44	2r-4u	19,920,000	-		19,920,000	2,988,000	-	16,932,000	8,466,000	8,466,000
21	Garth Street extension (oversizing) - Twenty Road to Dickenson Road	2023-2031	1.50	5u	2,391,000	-		2,391,000	-	-	2,391,000	1,195,500	1,195,500
22	Garth Street extension (oversizing) - Dickenson Road to Collector 2E	2023-2031	0.62	5u	1,359,000	-		1,359,000	-	-	1,359,000	679,500	679,500
23	Glancaster Road - Collector 1N to Airport Boundary	2032-2041	0.49	2r-2u	2,019,000	2,019,000		-	-	-	-	-	-
24	Glancaster Road - Dickenson Road Extension to Collector 1N	2032-2041	0.37	2r-4u	2,426,000	2,426,000		-	-	-	-	-	-
25	Glancaster Road - Garner Road to Dickenson Road	2023-2031	2.46	2r-4u	16,844,000	-		16,844,000	2,527,000	-	14,317,000	7,158,500	7,158,500
26	Smith Road* - Dickenson Road extension to Collector 1N	2032-2041	0.65	2r-4u	4,055,000	4,055,000		-	-	-	-	-	-
27	Smith Road (except Hydro Corridor) - Garner Road to Dickenson Road extension	2032-2041	1.57	2u	9,919,000	9,919,000		-	-	-	-	-	-
28	Smith Road - Collector 1N to Airport Boundary	2032-2041	0.35	2r-2u	1,919,000	1,919,000		-	-	-	-	-	-
29	Smith Road extension - Hydro corridor north crossing	2032-2041	0.26	2u	1,037,000	1,037,000		-	-	-	-	-	-
30	Southcote Road* - Garner to Twenty Road extension	2019-2022	0.97	2r-4u	9,306,000	-		9,306,000	1,396,000	-	7,910,000	3,955,000	3,955,000
31	Southcote Road - Twenty Road extension to Book Road	2023-2031	0.97	2r-4u	8,541,000	-		8,541,000	1,281,000	-	7,260,000	3,630,000	3,630,000
32	Twenty Road - Glancaster Road to Aldercrest Avenue	2023-2031	3.08	2r-4u	17,826,000	-		17,826,000	2,674,000	-	15,152,000	7,576,000	7,576,000
33	Twenty Road extension - Southcote Road to Glancaster Road	2023-2031	1.86	4u	14,296,000	-		14,296,000	-	-	14,296,000	7,148,000	7,148,000
34	Fiddler's Green Road - Garner Road to Carluke Road	2032-2041	6.07	2r-4u	38,881,000	38,881,000		-	-	-	-	-	-
35	Glancaster Road* - Butter Road to Highway 6	2032-2041	1.40	2r-4u	13,210,000	13,210,000		-	-	-	-	-	-
36	Glancaster Road - Highway 6 to White Church Road	2032-2041	0.89	2r-4u	7,911,000	7,911,000		-	-	-	-	-	-
37	Southcote Road - Book Road to Collector 1N	2023-2031	0.65	2r-4u	4,210,000	4,210,000		-	-	-	-	-	-
38	Southcote Road - Airport Boundary to Butter Road	2032-2041	0.81	2r-2u	3,855,000	3,855,000		-	-	-	-	-	-
39	Upper James Street - Alderlea Avenue to Homestead Drive	2023-2031	3.67	4u-6u	30,929,000	-		30,929,000	4,639,000	-	26,290,000	13,145,000	13,145,000
40	White Church Road - Glancaster Road to Highway 6	2032-2041	2.31	2r-4u	19,651,000	19,651,000		-	-	-	-	-	-
41	Upper James Street* - Homestead to Highway 6	2023-2031	2.78	4r-5u_NBR	12,395,000	-		12,395,000	1,859,000	-	10,536,000	5,268,000	5,268,000
South Mountain Area Transportation Study Projects													



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Services Related to a Highway

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Length	Capital Improvement	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Benefit to Existing Development	Less:	Potential D.C. Recoverable Cost		
										Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 50%	Non-Residential Share 50%
2019-2031													
42	West 5th Street - Rymal Road to Stone Church Road	2025	1.00	2r-3u	3,096,000	-		3,096,000	1,238,000	-	1,858,000	929,000	929,000
43	Rymal Road - Glancaster Road to Garth Street	2019-2022	1.30	2r-5u	7,993,000	-		7,993,000	1,199,000	-	6,794,000	3,397,000	3,397,000
44	Rymal Road - Fletcher Road to Upper Centennial	2020	2.49	2r-5u	15,717,000	-		15,717,000	2,358,000	-	13,359,000	6,679,500	6,679,500
45	Rymal Road* - Upper Wentworth to West of Dartnall	2019-2022	3.29	2r-5u	22,520,000	-		22,520,000	3,378,000	-	19,142,000	9,571,000	9,571,000
46	Rymal Road - Upper James Street to Upper Wellington Street	2026	0.87	2r-5u	4,624,000	-		4,624,000	694,000	-	3,930,000	1,965,000	1,965,000
47	Rymal Road - Upper Wellington Street to Upper Wentworth Street	2030	0.86	2r-5u	4,664,000	-		4,664,000	700,000	-	3,964,000	1,982,000	1,982,000
Stoney Creek Urban Boundary Expansion Projects													
48	Arvin Avenue - McNeilly to Lewis Road	2023-2031	0.80	2i	3,652,000	-		3,652,000	-	-	3,652,000	1,826,000	1,826,000
49	Arvin Avenue - Jones Road to Existing east end	2023-2031	0.50	2i	2,564,000	-		2,564,000	-	-	2,564,000	1,282,000	1,282,000
50	Arvin Avenue - McNeilly to Existing west end	2019-2022	0.40	2i	2,201,000	-		2,201,000	-	-	2,201,000	1,100,500	1,100,500
51	Fruitland Road - Highway 8 to Barton Street	2023-2031	1.05	2r-4u	8,207,000	-		8,207,000	1,231,000	-	6,976,000	3,488,000	3,488,000
52	McNeilly Road* - Highway 8 to Barton Street	2023-2031	0.89	2r-4u	6,797,000	-		6,797,000	1,020,000	-	5,777,000	2,888,500	2,888,500
53	Lewis Road* - Highway 8 to Barton Street	2023-2031	0.52	2r-4u	4,290,000	-		4,290,000	644,000	-	3,646,000	1,823,000	1,823,000
54	Glover Road* - Highway 8 to Barton Street	2023-2031	0.82	2r-4u	6,323,000	-		6,323,000	948,000	-	5,375,000	2,687,500	2,687,500
55	Jones Road* - Highway 8 to Barton Street	2023-2031	0.93	2r-4u	7,068,000	-		7,068,000	1,060,000	-	6,008,000	3,004,000	3,004,000
Ancaster Industrial Park and Transportation Master Plan Projects													
56	Garner Road - Fiddler's Green Road to Highway 2/Wilson Street	2019-2022	3.50	2r-4u	20,208,000	-		20,208,000	3,031,000	-	17,177,000	8,588,500	8,588,500
57	Golf Links Road - McNiven Road to Kitty Murray Lane	2023-2031	0.80	2r-3u	4,646,000	-		4,646,000	697,000	-	3,949,000	1,974,500	1,974,500
58	Jerseyville Road - Shaver Road to Wilson Street	2023-2031	3.10	2r-3u	16,438,000	-		16,438,000	6,575,000	-	9,863,000	4,931,500	4,931,500
59	Springbrook Avenue - Regan Drive to Garner Road	2020	0.69	2r-2u	3,096,000	-		3,096,000	464,000	-	2,632,000	1,316,000	1,316,000
60	Trinity Road - 1km south of Wilson to Highway 403	2019-2022	2.20	2r-4u	12,985,000	-		12,985,000	1,948,000	-	11,037,000	5,518,500	5,518,500
61	Shaver Road - Trustwood to Garner Road	2023-2031	1.00	2r-2i	4,840,000	-		4,840,000	726,000	-	4,114,000	2,057,000	2,057,000
62	Shaver Road - Highway 403 to Wilson Street	2019-2022	1.50	2r-2u	6,189,000	-		6,189,000	928,000	-	5,261,000	2,630,500	2,630,500
63	Southcote Road - Calder Street to Garner Road	2022	1.26	2r-3u	5,871,000	-		5,871,000	2,348,000	-	3,523,000	1,761,500	1,761,500
64	McNiven Road - Rousseaux Street to Golf Links Road	2028	0.63	2r-3u	3,218,000	-		3,218,000	2,574,000	-	644,000	322,000	322,000
65	Mohawk Road - McNiven Road to Highway 403	2019-2022	1.30	2r-3u	7,656,000	-		7,656,000	3,062,000	-	4,594,000	2,297,000	2,297,000
66	Stone Church Road - Harrogate Drive to Stonehenge Drive	2023-2031	0.34	2r-4u	3,114,000	-		3,114,000	467,000	-	2,647,000	1,323,500	1,323,500
Red Hill Business Park Projects													
67	Dartnall Road Extension - Twenty Road to Dickenson Road	2022	1.65	2i	4,988,000	-		4,988,000	-	-	4,988,000	2,494,000	2,494,000
68	Dickenson Road - west of Nebo to west of Glover	2023-2031	1.10	2r-2i	5,585,000	-		5,585,000	2,234,000	-	3,351,000	1,675,500	1,675,500
69	Dickenson Road East* - Upper James Street to west of Nebo Road	2023-2031	4.60	2r-2u	18,170,000	-		18,170,000	7,268,000	-	10,902,000	5,451,000	5,451,000
70	Nebo Road - Rymal Road to Twenty Road	2020	1.30	2r-2i	5,870,000	-		5,870,000	881,000	-	4,989,000	2,494,500	2,494,500
71	Nebo Road* - 800m South of Twenty Road to Dickenson Road	2019-2022	0.60	2r-2i	3,649,000	-		3,649,000	547,000	-	3,102,000	1,551,000	1,551,000
72	Regional Road 56 - Rymal Road to ROPA 9 Boundary	2019	1.20	2r-5u	8,587,000	-		8,587,000	1,288,000	-	7,299,000	3,649,500	3,649,500
73	Regional Road 56* - Cemetery Road to South Limits of ROPA 9	2023-2031	4.56	2r-5u	11,867,000	-		11,867,000	1,780,000	-	10,087,000	5,043,500	5,043,500
74	Twenty Road extension - Glover Road to Upper Red Hill Valley Parkway	2023-2031	0.60	3i	3,077,000	-		3,077,000	-	-	3,077,000	1,538,500	1,538,500
75	Glover Road - Twenty Road to Rymal Road	2023-2031	2.60	2r-2i	9,400,000	-		9,400,000	1,410,000	-	7,990,000	3,995,000	3,995,000
76	Upper Red Hill Valley Parkway - Rymal Road to Twenty Road	2023-2031	1.23	5u	10,375,000	-		10,375,000	-	-	10,375,000	5,187,500	5,187,500
Waterdown Projects													
77	Burke Street - Skinner Road to Mountain Brow	2023-2031	0.47	4u	3,948,000	-		3,948,000	197,000	-	3,751,000	1,875,500	1,875,500
78	Parkside Drive - Highway 6 to Hollybush Drive	2023-2031	1.10	2r-4u	6,297,000	-		6,297,000	2,519,000	-	3,778,000	1,889,000	1,889,000
79	Parkside Drive - Main Street to Churchill (500 m east)	2023-2031	0.61	2r-4u	4,749,000	-		4,749,000	1,900,000	-	2,849,000	1,424,500	1,424,500



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
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Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Length	Capital Improvement	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Benefit to Existing Development	Less:	Potential D.C. Recoverable Cost		
										Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 50%	Non-Residential Share 50%
2019-2031													
80	E-W Road Corridor (Waterdown By-Pass) - Dundas Street to Highway 6	2019-2022	6.29	4u	52,207,000	-		52,207,000	2,610,000	-	49,597,000	24,798,500	24,798,500
81	Waterdown Road (Burlington portion) - Mountain Brow Road to Craven Avenue ³	2019	1.90	2r-4u	24,720,000	-		24,720,000	-	-	24,720,000	22,248,000	2,472,000
82	Mountain Brow Road - Waterdown Road to New N-S Link (Burke Street)	2019-2022	0.91	2r-4u	7,654,000	-		7,654,000	1,148,000	-	6,506,000	3,253,000	3,253,000
83	Dundas Street - New north-south link to Hamilton Boundary	2023-2031	0.87	4u-6u	8,039,000	-		8,039,000	1,206,000	-	6,833,000	3,416,500	3,416,500
84	Centre Road - Northlawn to Parkside Drive	2019-2022	0.40	2r-3u	2,434,000	-		2,434,000	974,000	-	1,460,000	730,000	730,000
Fruitland Winona Projects													
85	Barton Street - Fruitland Road to Fifty Road	2026	5.00	2r-3u	24,938,000	-		24,938,000	9,975,000	-	14,963,000	7,481,500	7,481,500
86	Fifty Road - Q.E.W (South Service Road) to Highway 8	2023-2031	0.80	2r-4u	5,277,000	-		5,277,000	792,000	-	4,485,000	2,242,500	2,242,500
87	Fruitland Road By-pass - Barton Street to Highway 8	2019	1.10	4u	8,761,000	-		8,761,000	1,314,000	-	7,447,000	3,723,500	3,723,500
88	Fruitland Road - Arvin Avenue to Barton Street	2023-2031	0.30	2u-4u	3,010,000	-		3,010,000	452,000	-	2,558,000	1,279,000	1,279,000
89	Highway 8 (Stoney Creek)* - Dewitt Road to Fruitland Road	2023-2031	0.80	2r-5u	6,534,000	-		6,534,000	2,614,000	-	3,920,000	1,960,000	1,960,000
90	Highway 8 (Stoney Creek) - Fruitland Road to East City Limit	2023-2031	6.18	2r-4r NBR	20,674,000	-		20,674,000	8,270,000	-	12,404,000	6,202,000	6,202,000
Elfrida Boundary Expansion Projects													
91	First Road East - Highway 20 to Mud Street	2023-2031	2.10	2r-3u	12,229,000	8,071,000		4,158,000	624,000	-	3,534,000	1,767,000	1,767,000
92	First Road East (oversizing) - Highway 20 to Golf Club Road	2023-2031	2.21	3u	3,225,000	2,129,000		1,096,000	-	-	1,096,000	548,000	548,000
93	Fletcher Road* - 500m South of Rymal to Golf Club Road	2023-2031	1.60	2r-3u	10,124,000	6,682,000		3,442,000	516,000	-	2,926,000	1,463,000	1,463,000
94	Golf Club Road - Trinity Church Road to Hendershot Road	2023-2031	7.00	2r-2u	29,795,000	19,665,000		10,130,000	1,520,000	-	8,610,000	4,305,000	4,305,000
95	Hendershot Road - Highway 20 to Golf Club Road	2023-2031	2.10	2r-3u	10,729,000	7,081,000		3,648,000	547,000	-	3,101,000	1,550,500	1,550,500
96	Highland Road - Upper Centennial Parkway to Second Road East	2023-2031	2.00	2r-3u	10,308,000	6,803,000		3,505,000	526,000	-	2,979,000	1,489,500	1,489,500
97	Mud Street - Upper Centennial Parkway to Second Road East	2023-2031	2.00	2r-2u	9,166,000	6,049,000		3,117,000	468,000	-	2,649,000	1,324,500	1,324,500
98	Second Road East - Highway 20 to Mud Street	2023-2031	3.00	2r-3u	15,267,000	10,076,000		5,191,000	779,000	-	4,412,000	2,206,000	2,206,000
99	Trinity Church Road* - Hydro corridor to Golf Club Road	2023-2031	2.00	2r-2u	9,541,000	6,297,000		3,244,000	487,000	-	2,757,000	1,378,500	1,378,500
100	Upper Centennial Parkway - Green Mountain Road to Highway 20	2023-2031	2.90	4r-5u	20,111,000	13,273,000		6,838,000	1,026,000	-	5,812,000	2,906,000	2,906,000
Other Road Projects													
101	Binbrook Road - Royal Winter Dr/Binhaven Rd to Fletcher Road	2019	0.70	2r-3u	6,840,000	-		6,840,000	1,026,000	-	5,814,000	2,907,000	2,907,000
102	Highway 8 (Dundas) - Bond Street to Dundas Limits	2023-2031	0.40	2r-3u	3,199,000	-		3,199,000	1,280,000	-	1,919,000	959,500	959,500
103	Highway 8 (Dundas) - Hillcrest to Park Ave	2020	0.60	2r-3u	2,566,000	-		2,566,000	1,026,000	-	1,540,000	770,000	770,000
104	Jones Road - Barton Street to South Service Road	2023-2031	0.90	2r-2i	3,739,000	-		3,739,000	1,870,000	-	1,869,000	934,500	934,500
105	Lewis Road - Barton Street to South Service Road	2023-2031	0.80	2r-2i	3,402,000	-		3,402,000	1,701,000	-	1,701,000	850,500	850,500
106	Longwood Road - Aberdeen Avenue to Main Street	2023-2031	0.65	various/ESR	5,561,000	-		5,561,000	2,781,000	-	2,780,000	1,390,000	1,390,000
107	Miles Road - Rymal Road to Hydro Corridor	2023-2031	2.00	2r-3i	10,769,000	-		10,769,000	1,615,000	-	9,154,000	4,577,000	4,577,000
108	Millen Road - Barton Street to South Service Road	2023-2031	1.00	2r-3i	6,118,000	-		6,118,000	2,447,000	-	3,671,000	1,835,500	1,835,500
109	Fletcher Road - Binbrook Road to Golf Club Road	2023-2031	4.20	2r-2u	17,568,000	-		17,568,000	7,027,000	-	10,541,000	5,270,500	5,270,500
110	South Service Road - Millen Road to Gray	2023-2031	1.70	2r-2u	8,019,000	-		8,019,000	1,203,000	-	6,816,000	3,408,000	3,408,000
111	Trinity Church Road - Binbrook Road to Golf Club Road	2023-2031	5.20	2r-2u	9,032,000	-		9,032,000	3,613,000	-	5,419,000	2,709,500	2,709,500
112	Twenty Road - Aldercrest Avenue to 600m west of Nebo Road	2023-2031	4.10	2r-2u	16,290,000	-		16,290,000	6,516,000	-	9,774,000	4,887,000	4,887,000
113	Upper Gage Street - Mohawk Road to Thorley	2023-2031	0.60	4u-5u	5,281,000	-		5,281,000	2,641,000	-	2,640,000	1,320,000	1,320,000
114	Upper Wellington Street - Limeridge Street to Stone Church Road	2019-2022	1.20	2r-5u	9,350,000	-		9,350,000	3,740,000	-	5,610,000	2,805,000	2,805,000
115	Shaver Road - Highway 403 to Wilson Street	2019-2022	1.50	2r-2u	6,189,000	-		6,189,000	928,000	-	5,261,000	2,630,500	2,630,500
116	Scenic Drive - Lavender Drive (south leg) to Old City Limits	2019-2022	1.40	2r-2u	6,571,000	-		6,571,000	2,628,000	-	3,943,000	1,971,500	1,971,500
117	North Service Road - Green Road to East City Limits	2019-2022	-	Intersection	3,013,000	-		3,013,000	-	-	3,013,000	1,506,500	1,506,500
118	Victoria Avenue - Ferrie Street to Burlington Street	2019	0.46	2-way conversion	1,224,000	-		1,224,000	184,000	-	1,040,000	520,000	520,000
119	Hwy 5/6 municipal roads (City portion)	2019-2022	-	Service Roads	22,981,000	-		22,981,000	-	-	22,981,000	11,490,500	11,490,500
120	Post Period Benefit Deduction	2019-2031	-	-	-	175,000,000		(175,000,000)	-	-	(175,000,000)	(87,500,000)	(87,500,000)
Major Structures													
121	Highway 5/6 interchange	2019-2022	-	Structure	18,299,000	-		18,299,000	-	-	18,299,000	9,149,500	9,149,500



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									Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 50%	Non-Residential Share 50%
	2019-2031												
122	Strathcona Pedestrian Bridge	2027	-	Structure	7,601,000	-		7,601,000	1,140,000	-	6,461,000	3,230,500	3,230,500
123	Fifty Road - Grade Separation	2029	-	Structure	25,765,000	12,882,000		12,883,000	3,221,000	-	9,662,000	4,831,000	4,831,000
124	Other Grade Separation - Grade Separation	2024	-	Structure	25,765,000	12,882,000		12,883,000	3,221,000	-	9,662,000	4,831,000	4,831,000
125	Mohawk Road	2019-2022	-	Hwy 403 WB on-ramp	3,934,000	-		3,934,000	1,967,000	-	1,967,000	983,500	983,500
	Programs												
126	Intersection Pedestrian Signal	2019-2031	-	City-Wide Program	11,700,000	-		11,700,000	585,000	-	11,115,000	5,557,500	5,557,500
127	Traffic Count Program	2019-2031	-	City-Wide Program	2,000,000	-		2,000,000	100,000	-	1,900,000	950,000	950,000
128	Geotechnical Investigation Program	2019-2031	-	City-Wide Program	9,100,000	-		9,100,000	7,735,000	-	1,365,000	682,500	682,500
129	Mapping Update Program	2019-2031	-	City-Wide Program	305,000	-		305,000	15,000	-	290,000	145,000	145,000
130	Active Transportation Benchmarking	2019-2031	-	City-Wide Program	390,000	-		390,000	20,000	-	370,000	185,000	185,000
131	Development Road Urbanization	2019-2031	-	City-Wide Program	6,500,000	-		6,500,000	325,000	-	6,175,000	3,087,500	3,087,500
132	Street Lighting Enhancement Program	2019-2031	-	City-Wide Program	3,250,000	-		3,250,000	163,000	-	3,087,000	1,543,500	1,543,500
133	Pedestrian Crossovers	2019-2031	-	City-Wide Program	900,000	-		900,000	45,000	-	855,000	427,500	427,500
134	Advanced Traffic Management Systems	2019-2031	-	City-Wide Program	14,390,000	-		14,390,000	10,793,000	-	3,597,000	1,798,500	1,798,500
135	Express Bus (L.A.S.T. Line) Enhanced Passenger Amenities	2019-2031	-	City-Wide Program	8,010,000	-		8,010,000	4,005,000	-	4,005,000	2,002,500	2,002,500
136	Miscellaneous Land Acquisitions	2019-2031	-	City-Wide Program	5,000,000	-		5,000,000	250,000	-	4,750,000	2,375,000	2,375,000
137	Transit Shelter Expansion Program	2019-2031	-	City-Wide Program	1,950,000	-		1,950,000	975,000	-	975,000	487,500	487,500
138	Bus Stop Shelter Rehabilitation Program	2019-2031	-	City-Wide Program	1,625,000	-		1,625,000	1,381,000	-	244,000	122,000	122,000
139	Cordon Count Program	2019-2031	-	City-Wide Program	330,000	-		330,000	17,000	-	313,000	156,500	156,500
140	New Sidewalk Program	2019-2031	-	City-Wide Program	6,500,000	-		6,500,000	325,000	-	6,175,000	3,087,500	3,087,500
141	New Traffic Signals	2020-2031	-	City-Wide Program	12,000,000	-		12,000,000	600,000	-	11,400,000	5,700,000	5,700,000
142	New Traffic Signal - Waterdown Road/Mill St at Mountain Brow	2019	-	Traffic Signal	250,000	-		250,000	13,000	-	237,000	118,500	118,500
143	New Traffic Signal - Rymal Road west of Walmart Access	2019	-	Traffic Signal	100,000	-		100,000	5,000	-	95,000	47,500	47,500
144	New Traffic Signal - Regional Road 56 at Dalgleish Road	2019	-	Traffic Signal	250,000	-		250,000	13,000	-	237,000	118,500	118,500
145	New Traffic Signal - Rymal at Canadian Tire Access	2019	-	Traffic Signal	200,000	-		200,000	10,000	-	190,000	95,000	95,000
146	New Traffic Signal - Rymal (opposite Celestial Crescent)	2019	-	Traffic Signal	100,000	-		100,000	5,000	-	95,000	47,500	47,500
147	New Traffic Signal - Drakes at North Service Road	2019	-	Traffic Signal	350,000	-		350,000	18,000	-	332,000	166,000	166,000
148	New Traffic Signal - Fifty at North Service Road	2019	-	Traffic Signal	350,000	-		350,000	18,000	-	332,000	166,000	166,000
149	Unidentified intersection improvements (excluding Traffic Signals)	2019-2031	-	City-Wide Program	3,250,000	-		3,250,000	163,000	-	3,087,000	1,543,500	1,543,500
150	Annual A and B Line Enhanced Bus Stops & Shelters	2019-2031	-	City-Wide Program	919,000	-		919,000	460,000	-	459,000	229,500	229,500
151	Annual Express Bus/Rapid Transit Enhanced Bus Stops & Shelters	2019-2031	-	City-Wide Program	5,054,000	-		5,054,000	2,527,000	-	2,527,000	1,263,500	1,263,500
152	Annual Transit Priority Measures	2019-2031	-	City-Wide Program	17,472,000	-		17,472,000	8,736,000	-	8,736,000	4,368,000	4,368,000
153	Annual Bike Parking at B/A Line Stops	2019-2031	-	City-Wide Program	46,000	-		46,000	23,000	-	23,000	11,500	11,500
154	Annual Enhanced Bike Parking at Express Bus/Rapid Transit Stops	2019-2031	-	City-Wide Program	275,000	-		275,000	138,000	-	137,000	68,500	68,500
155	Transportation Demand Management	2019-2031	-	City-Wide Program	2,000,000	-		2,000,000	1,000,000	-	1,000,000	500,000	500,000
	Studies/Environmental Assessments												
156	Complete and Liveable Streets Guidelines	2019-2022	-	Study	250,000	-		250,000	-	-	250,000	125,000	125,000
157	Cycling Master Plan Review	2023-2031	-	Study	200,000	-		200,000	-	-	200,000	100,000	100,000
158	E.M.M.E. Model Management	2019-2031	-	Monitoring	1,040,000	-		1,040,000	-	-	1,040,000	520,000	520,000
159	Goods Movement Study Review and Update	2019-2022	-	Study	150,000	-		150,000	-	-	150,000	75,000	75,000
160	Intelligent Transportation System Strategy	2019-2022	-	Study	250,000	-		250,000	-	-	250,000	125,000	125,000
161	Lincoln Alexander and Red Hill Valley Parkway Widening Feasibility Study	2019-2022	-	Study	500,000	-		500,000	-	-	500,000	250,000	250,000
162	Multi-modal Level of Service Guidelines	2019-2022	-	Study	250,000	-		250,000	-	-	250,000	125,000	125,000
163	Pedestrian Mobility Plan Review	2023-2031	-	Study	200,000	-		200,000	-	-	200,000	100,000	100,000
164	Revenue Tools Study	2019-2022	-	Study	250,000	-		250,000	-	-	250,000	125,000	125,000
165	Transportation Master Plan Review	2023-2031	-	Study	250,000	-		250,000	-	-	250,000	125,000	125,000



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									Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share	
2019-2031														
166	Truck Route Master Plan Review	2019-2022	-	Study	250,000	-		250,000	-	-	250,000	125,000	125,000	
167	Escarpment Crossing People Mover Study	2023-2031	-	Study	200,000	-		200,000	-	-	200,000	100,000	100,000	
Active Transportation Projects														
168	Red Hill Pedestrian Crossing - Eugene Street to Glengrove Avenue	2019-2031	-	Pedestrian Crossing	1,750,000	525,000		1,225,000	184,000	-	1,041,000	520,500	520,500	
169	Heritage Green Trail Link	2019-2031	-	Commuter/Trail	525,000	157,000		368,000	55,000	-	313,000	156,500	156,500	
170	Flamborough Y.M.C.A Trail Link	2019-2031	-	Commuter/Trail	565,000	169,000		396,000	59,000	-	337,000	168,500	168,500	
171	Centre Road Link	2019-2031	-	Commuter/Trail	640,000	192,000		448,000	67,000	-	381,000	190,500	190,500	
172	Kerns Road/Waterdown South Link	2019-2031	-	Multi-Use Trail	957,000	287,000		670,000	101,000	-	569,000	284,500	284,500	
173	Hunter - MacNab to Catharine	2019-2031	0.47	Bike Lane	78,000	23,000		55,000	8,000	-	47,000	23,500	23,500	
174	Hunter - Liberty to Claremont Access	2019-2031	0.23	Bike Lane	31,000	9,000		22,000	3,000	-	19,000	9,500	9,500	
175	Wilson - James to Sherman	2019-2031	2.55	Bike Lane	81,000	24,000		57,000	9,000	-	48,000	24,000	24,000	
176	Ferguson - Hunter to Charlton	2019-2031	0.20	Bike Lane	2,000	-		2,000	-	-	2,000	1,000	1,000	
177	King over Red Hill Valley Parkway - Lawrence to Pottruff	2019-2031	0.50	Bike Lane	27,000	8,000		19,000	3,000	-	16,000	8,000	8,000	
178	Locke - King to Hunter	2019-2031	1.28	Bike Lane	8,000	2,000		6,000	1,000	-	5,000	2,500	2,500	
179	Barton - Red Hill Valley to Lake	2019-2031	1.61	Bike Lane	234,000	70,000		164,000	25,000	-	139,000	69,500	69,500	
180	Wilson in Ancaster - Rousseaux to Halson	2019-2031	0.85	Bike Lane	20,000	6,000		14,000	2,000	-	12,000	6,000	6,000	
181	Barton - Brockley to Fruitland	2019-2031	3.95	Bike Lane	123,000	37,000		86,000	13,000	-	73,000	36,500	36,500	
182	Gage - Industrial to Lawrence	2019-2031	2.96	Bike Lane	115,000	34,000		81,000	12,000	-	69,000	34,500	34,500	
183	Hunter Street - Escarpment Rail Trail Link - Hunter to West 5th at Fennell	2019-2031	3.50	Multi-Use Trail	3,275,000	982,000		2,293,000	344,000	-	1,949,000	974,500	974,500	
184	Cannon - Sherman to Lottridge	2019-2031	0.42	Bike Lane	16,000	4,000		12,000	2,000	-	10,000	5,000	5,000	
185	First Rd W/Whitedeer/Terryberry & Picardy/ Highbury - Glover Mtn Road/ Ridgeview Dr to Rymal/ Bellagio	2019-2031	4.08	Bike Lane	48,000	15,000		33,000	5,000	-	28,000	14,000	14,000	
186	Olympic Park Twin Pad Arena Link - Chedoke Rail Trail to Old Mohawk Road	2019-2031	1.50	Multi-Use Trail	831,000	249,000		582,000	87,000	-	495,000	247,500	247,500	
187	Dundas St - Main to Cootes	2019-2031	0.68	Bike Lane	16,000	5,000		11,000	2,000	-	9,000	4,500	4,500	
188	Mohawk - Old Mohawk to Upper Paradise	2019-2031	1.83	Bike Lane	47,000	14,000		33,000	5,000	-	28,000	14,000	14,000	
189	Hatt - Peel to Main	2019-2031	0.93	Bike Lane	29,000	9,000		20,000	3,000	-	17,000	8,500	8,500	
190	Eastport Drive Lift Bridge Link	2019-2031	-	Multi-Use Trail	1,750,000	525,000		1,225,000	184,000	-	1,041,000	520,500	520,500	
191	Beach Bike Lane - under QEW	2019-2031	0.24	Bike Lane	7,000	2,000		5,000	1,000	-	4,000	2,000	2,000	
192	Beach Boulevard - lift bridge to Van Wagner's	2019-2031	4.25	Bike Lane	94,000	28,000		66,000	10,000	-	56,000	28,000	28,000	
193	Van Wagner's - Beach Bike Lane to Centennial Parkway	2019-2031	2.50	Bike Lane	78,000	23,000		55,000	8,000	-	47,000	23,500	23,500	
194	Montclair/ Central/ Graham/ Frederick	2019-2031	3.80	Bike Lane	19,000	6,000		13,000	2,000	-	11,000	5,500	5,500	
195	Melvin - Strathearne/ Shelby to Red Hill Valley Trail	2019-2031	1.90	Bike Lane	59,000	18,000		41,000	6,000	-	35,000	17,500	17,500	
196	Britania - Cannon to Walter	2019-2031	0.84	Bike Lane	22,000	6,000		16,000	2,000	-	14,000	7,000	7,000	
197	Creighton/ Market - Hatt/ King to Governor's	2019-2031	0.95	Bike Lane	25,000	8,000		17,000	3,000	-	14,000	7,000	7,000	
198	Ogilvie/ Old Ancaster - Hatt/ King to Hamilton-Brantford Rail Trail	2019-2031	0.80	Bike Lane	14,000	5,000		9,000	1,000	-	8,000	4,000	4,000	
199	Longwood - Franklin to King	2019-2031	0.73	Bike Lane	17,000	5,000		12,000	2,000	-	10,000	5,000	5,000	
200	Mountain Brow in Waterdown - Mill to Burke to King Road	2019-2031	1.20	Multi-Use Trail	660,000	198,000		462,000	69,000	-	393,000	196,500	196,500	
201	Golf Links/ Halson - Wilson to Southcote	2019-2031	1.19	Bike Lane	28,000	9,000		19,000	3,000	-	16,000	8,000	8,000	
202	Meadowbrook	2019-2031	1.00	Bike Lane	16,000	5,000		11,000	2,000	-	9,000	4,500	4,500	
203	West 5th - Mohawk College Access to Marlowe	2019-2031	1.13	Bike Lane	70,000	21,000		49,000	7,000	-	42,000	21,000	21,000	
204	Limeridge - Garth/ Bonaventure to West 5th/ Hawkridge	2019-2031	1.37	Bike Lane	53,000	16,000		37,000	6,000	-	31,000	15,500	15,500	
205	Scenic - Chedoke Rail Trail to Upper Paradise	2019-2031	2.27	Bike Lane	27,000	8,000		19,000	3,000	-	16,000	8,000	8,000	
206	Green Mountain - First Road W to First Road E	2019-2031	1.50	Bike Lane	292,000	87,000		205,000	31,000	-	174,000	87,000	87,000	
207	Walnut Grove & Sanctuary Park - Walnut Grove/ Ogilvie to Highland Park Dr	2019-2031	0.40	Multi-Use Trail	366,000	110,000		256,000	38,000	-	218,000	109,000	109,000	
208	Scenic/ Denlow - Upper Paradise to Garth	2019-2031	0.95	Bike Lane	11,000	3,000		8,000	1,000	-	7,000	3,500	3,500	
209	Waterdown local streets	2019-2031	-	Bike Lane	78,000	23,000		55,000	8,000	-	47,000	23,500	23,500	
210	Frid/Chatham - Longwood to Dundurn	2019-2031	1.00	Bike Lane	6,000	2,000		4,000	1,000	-	3,000	1,500	1,500	



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									Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 50%	Non-Residential Share 50%
	2019-2031												
211	Fiddler's Green - Jerseyville to Wilson	2019-2031	0.25	Bike Lane	6,000	2,000		4,000	1,000	-	3,000	1,500	1,500
212	Upper Wentworth - Fennell to East 24th	2019-2031	1.03	Bike Lane	40,000	12,000		28,000	4,000	-	24,000	12,000	12,000
213	Barton - Fruitland to Fifty	2019-2031	5.00	Multi-Use Trail	2,647,000	794,000		1,853,000	278,000	-	1,575,000	787,500	787,500
214	Queensdale - Upper Sherman to Upper Ottawa	2019-2031	1.56	Bike Lane	36,000	10,000		26,000	4,000	-	22,000	11,000	11,000
215	Old Mud - Mt Albion to Winterberry	2019-2031	0.40	Bike Lane	9,000	2,000		7,000	1,000	-	6,000	3,000	3,000
216	Charlton/ John - James to Ferguson & St Joseph's Dr	2019-2031	0.80	Bike Lane	84,000	25,000		59,000	9,000	-	50,000	25,000	25,000
217	Upper Wentworth - Concession to Fennell	2019-2031	1.03	Bike Lane	40,000	12,000		28,000	4,000	-	24,000	12,000	12,000
218	West Ave - Hunter/ Claremont to Young	2019-2031	0.36	Bike Lane	3,000	1,000		2,000	-	-	2,000	1,000	1,000
219	Frances - Grays to east of Green Road	2019-2031	1.15	Bike Lane	156,000	47,000		109,000	16,000	-	93,000	46,500	46,500
220	Nash - Bancroft to King	2019-2031	2.58	Bike Lane	101,000	31,000		70,000	11,000	-	59,000	29,500	29,500
221	Kitty Murray	2019-2031	2.26	Bike Lane	53,000	16,000		37,000	6,000	-	31,000	15,500	15,500
222	Stonehenge	2019-2031	2.46	Bike Lane	58,000	18,000		40,000	6,000	-	34,000	17,000	17,000
223	Highway 8 - Bond to Hillcrest	2019-2031	1.10	Paved Shoulder	1,014,000	304,000		710,000	107,000	-	603,000	301,500	301,500
224	Queensdale - Upper Wellington to Upper Sherman	2019-2031	1.68	Bike Lane	39,000	11,000		28,000	4,000	-	24,000	12,000	12,000
225	Meadowlands/ Raymond - Golf Links to Garner	2019-2031	2.10	Bike Lane	49,000	15,000		34,000	5,000	-	29,000	14,500	14,500
226	Delawana - Kenora to Lake	2019-2031	1.02	Bike Lane	9,000	3,000		6,000	1,000	-	5,000	2,500	2,500
227	Highway 8 - Brock to Hillcrest	2019-2031	0.60	Paved Shoulder	108,000	32,000		76,000	11,000	-	65,000	32,500	32,500
228	Upper Paradise - Stone Church to Rymal	2019-2031	1.07	Bike Lane	42,000	13,000		29,000	4,000	-	25,000	12,500	12,500
229	Binbrook Road - Regional Road 56 to Southbrook	2019-2031	0.28	Bike Lane	7,000	2,000		5,000	1,000	-	4,000	2,000	2,000
230	Lovers Lane - Sulpher Springs to Jerseyville	2019-2031	0.90	Bike Lane	21,000	6,000		15,000	2,000	-	13,000	6,500	6,500
231	Governor's - Binkley to Creighton	2019-2031	4.92	Bike Lane	652,000	195,000		457,000	69,000	-	388,000	194,000	194,000
232	Stuart Street Rail Link	2019-2031	-	Multi-Use Trail	254,000	76,000		178,000	27,000	-	151,000	75,500	75,500
233	Mud Street - Mountain Brow Boulevard	2019-2031	0.50	Multi-Use Trail	136,000	41,000		95,000	14,000	-	81,000	40,500	40,500
234	William Connell Park Link - Stone Church Road to Rymal	2019-2031	0.70	Multi-Use Trail	689,000	206,000		483,000	72,000	-	411,000	205,500	205,500
235	Upper James - William Connell Park	2019-2031	0.38	Multi-Use Trail	225,000	67,000		158,000	24,000	-	134,000	67,000	67,000
236	Grays/ Gray - Confederation Park gate to King	2019-2031	3.00	Bike Lane	117,000	35,000		82,000	12,000	-	70,000	35,000	35,000
237	King in Dundas - Bond to Peel	2019-2031	0.80	Bike Lane	31,000	9,000		22,000	3,000	-	19,000	9,500	9,500
238	Warrington/ South Service/ Lake - Centennial Parkway to Delawana	2019-2031	2.05	Bike Lane	78,000	23,000		55,000	8,000	-	47,000	23,500	23,500
239	Marston - Paramount to Gordon Drummond	2019-2031	0.40	Bike Lane	14,000	5,000		9,000	1,000	-	8,000	4,000	4,000
240	Kenora/ Greenford/ Owen - Bancroft to King	2019-2031	2.60	Bike Lane	172,000	52,000		120,000	18,000	-	102,000	51,000	51,000
241	Centennial Parkway - North Service to GO station/ Kenora	2019-2031	1.20	Multi-Use Trail	156,000	47,000		109,000	16,000	-	93,000	46,500	46,500
242	Victoria - Barton to Main	2019-2031	1.04	Bike Lane	40,000	12,000		28,000	4,000	-	24,000	12,000	12,000
243	Kentley - Eugene to Kenora	2019-2031	0.40	Bike Lane	4,000	1,000		3,000	-	-	3,000	1,500	1,500
244	Whitney - Main to Emerson	2019-2031	1.50	Bike Lane	47,000	14,000		33,000	5,000	-	28,000	14,000	14,000
245	West 5th - Fennell to Mohawk Coll. Access	2019-2031	0.33	Multi-Use Trail	28,000	8,000		20,000	3,000	-	17,000	8,500	8,500
246	Millen - Shoreview to Millen/ Seaman	2019-2031	0.50	Bike Lane	31,000	9,000		22,000	3,000	-	19,000	9,500	9,500
247	King in Stoney Creek - Battlefield/ Elm to Gray	2019-2031	0.74	Bike Lane	16,000	5,000		11,000	2,000	-	9,000	4,500	4,500
248	Limeridge - Birchview to Mtn Brow	2019-2031	1.98	Bike Lane	70,000	21,000		49,000	7,000	-	42,000	21,000	21,000
249	Dewitt - Dundee to Ridge	2019-2031	0.50	Bike Lane	750,000	225,000		525,000	79,000	-	446,000	223,000	223,000
250	Claremont Access - Inverness to Main	2019-2031	1.60	Bike Lane	50,000	15,000		35,000	5,000	-	30,000	15,000	15,000
251	Inverness - Upper James to Belvidere	2019-2031	0.44	Bike Lane	11,000	3,000		8,000	1,000	-	7,000	3,500	3,500
252	Burlington Street Link - Ferguson/ Dock Service Road to Sherman	2019-2031	1.88	Bike Lane	104,000	31,000		73,000	11,000	-	62,000	31,000	31,000
253	Dundas St in Watford - Highway 6 to Hamilton St	2019-2031	2.75	Bike Lane	129,000	39,000		90,000	14,000	-	76,000	38,000	38,000
254	Hollybush - Parkside to Dundas St	2019-2031	1.10	Bike Lane	16,000	5,000		11,000	2,000	-	9,000	4,500	4,500
255	Greenhill - Summercrest to King	2019-2031	1.20	Bike Lane	47,000	14,000		33,000	5,000	-	28,000	14,000	14,000
256	Governor's - Ogilvie to Main	2019-2031	0.24	Bike Lane	43,000	13,000		30,000	5,000	-	25,000	12,500	12,500
257	Queenston/ Highway 8 - Glover to Winona/ Niagara border	2019-2031	3.80	Bike Lane	682,000	205,000		477,000	72,000	-	405,000	202,500	202,500
258	Burlington Street East Boulevard Trail - Ottawa to Parkdale to Glow	2019-2031	2.30	Multi-Use Trail	1,050,000	315,000		735,000	110,000	-	625,000	312,500	312,500



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Services Related to a Highway

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Length	Capital Improvement	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Benefit to Existing Development	Less:	Potential D.C. Recoverable Cost		
										Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
2019-2031													
259	Queenston/ Highway 8 - King to Dewitt	2019-2031	1.37	Bike Lane	246,000	74,000		172,000	26,000	-	146,000	73,000	73,000
260	Greenhill - Harrisford to Summercrest	2019-2031	1.94	Bike Lane	76,000	23,000		53,000	8,000	-	45,000	22,500	22,500
261	Mill in Waterdown - Parkside to Dundas St	2019-2031	0.95	Bike Lane	22,000	6,000		16,000	2,000	-	14,000	7,000	7,000
262	King in Stoney Creek - Gray to Queenston/ Highway 8	2019-2031	1.51	Bike Lane	78,000	23,000		55,000	8,000	-	47,000	23,500	23,500
263	Rousseau/ Mohawk - Wilson to Filman	2019-2031	1.60	Bike Lane	225,000	68,000		157,000	24,000	-	133,000	66,500	66,500
264	Baseline/ Lockport - Winona Road to Niagara border	2019-2031	1.15	Bike Lane	23,000	7,000		16,000	2,000	-	14,000	7,000	7,000
265	Winona - Lido/ shore to Peachtree	2019-2031	1.97	Bike Lane	46,000	14,000		32,000	5,000	-	27,000	13,500	13,500
266	Cherry Beach Road Link - Millen to Dewitt	2019-2031	0.91	Multi-Use Trail	234,000	70,000		164,000	25,000	-	139,000	69,500	69,500
267	North Service Road - Dewitt to Lakeview	2019-2031	0.73	Bike Lane	16,000	5,000		11,000	2,000	-	9,000	4,500	4,500
268	North Service Road - Bellavista to Baseline	2019-2031	0.98	Bike Lane	23,000	7,000		16,000	2,000	-	14,000	7,000	7,000
269	Upper Sherman - Stone Church to Rymal to Miles	2019-2031	1.00	Bike Lane	179,000	53,000		126,000	19,000	-	107,000	53,500	53,500
270	Emperor - Brigade to Acadia	2019-2031	0.44	Bike Lane	16,000	5,000		11,000	2,000	-	9,000	4,500	4,500
271	Burlington/ Industrial - Sherman to Gage	2019-2031	0.86	Bike Lane	99,000	30,000		69,000	10,000	-	59,000	29,500	29,500
272	Birch/ Holton - Burlington St to Cannon/ King/ Delaware	2019-2031	1.40	Bike Lane	31,000	9,000		22,000	3,000	-	19,000	9,500	9,500
273	Dewitt - Barton to Dundee	2019-2031	0.90	Bike Lane	21,000	6,000		15,000	2,000	-	13,000	6,500	6,500
274	Chedmac - Southridge to Rice	2019-2031	0.53	Bike Lane	23,000	7,000		16,000	2,000	-	14,000	7,000	7,000
275	Kilbride - Upper Ottawa to Nebo	2019-2031	0.38	Bike Lane	9,000	3,000		6,000	1,000	-	5,000	2,500	2,500
276	Hamilton in Waterdown - Centre/Main to Highway 5/Dundas	2019-2031	1.00	Bike Lane	62,000	18,000		44,000	7,000	-	37,000	18,500	18,500
277	Osler/ Main - Hatt/ King to Main + 125m of Main	2019-2031	2.00	Bike Lane	88,000	26,000		62,000	9,000	-	53,000	26,500	26,500
278	Fiddler's Green - Amberly to Garner	2019-2031	0.68	Bike Lane	21,000	6,000		15,000	2,000	-	13,000	6,500	6,500
279	Shaver - Wilson to Garner	2019-2031	0.52	Bike Lane	12,000	3,000		9,000	1,000	-	8,000	4,000	4,000
280	Upper James - Twenty to Airport/ Mt Hope	2019-2031	4.05	Multi-Use Trail	1,153,000	346,000		807,000	121,000	-	686,000	343,000	343,000
281	Christie-Tews - Christie C.A. to Harvest	2019-2031	2.75	Multi-Use Trail	1,124,000	337,000		787,000	118,000	-	669,000	334,500	334,500
282	Fennell Avenue Boulevard Trail - Gantv/ West 18th to West 5th	2019-2031	1.20	Multi-Use Trail	412,000	124,000		288,000	43,000	-	245,000	122,500	122,500
283	Jones Road Link	2019-2031	-	Multi-Use Trail	222,000	222,000		-	-	-	-	-	-
284	Mountain Brow Boulevard Trail - Mohawk to Arbour	2019-2031	1.81	Multi-Use Trail	374,000	112,000		262,000	39,000	-	223,000	111,500	111,500
285	Mountain Brow East Path - Rendell to Oakcrest	2019-2031	0.81	Multi-Use Trail	1,560,000	468,000		1,092,000	164,000	-	928,000	464,000	464,000
286	Upper James/ Christie - Rymal to Twenty	2019-2031	0.80	Multi-Use Trail	197,000	59,000		138,000	21,000	-	117,000	58,500	58,500
287	Proposed Pipeline Trail - Museum of Steam and Technology to Mahoney	2019-2031	2.40	Multi-Use Trail	517,000	155,000		362,000	54,000	-	308,000	154,000	154,000
288	Existing Pipeline Trail - Main to Strathearne	2019-2031	2.20	Multi-Use Trail	4,679,000	1,404,000		3,275,000	491,000	-	2,784,000	1,392,000	1,392,000
289	Hydro Corridor - Barton to Lawrence	2019-2031	1.90	Multi-Use Trail	1,251,000	375,000		876,000	131,000	-	745,000	372,500	372,500
290	Hydro Corridor - Lawrence Avenue to Greenhill Avenue	2019-2031	1.15	Multi-Use Trail	430,000	129,000		301,000	45,000	-	256,000	128,000	128,000
291	Strachan Street Trail - James to Ferguson	2019-2031	0.66	Multi-Use Trail	337,000	101,000		236,000	35,000	-	201,000	100,500	100,500
292	Karst Escarpment Loop - Pritchard to Mount Albion/Winterberry	2019-2031	0.70	Multi-Use Trail	390,000	117,000		273,000	41,000	-	232,000	116,000	116,000
293	Chedoke Rail Trail - Highway 403 to Dundurn	2019-2031	4.68	Multi-Use Trail	1,487,000	446,000		1,041,000	156,000	-	885,000	442,500	442,500
294	Hamilton-Brantford Rail Trail - Bridlewood Dr to Ewen	2019-2031	4.00	Multi-Use Trail	406,000	122,000		284,000	43,000	-	241,000	120,500	120,500
295	Battlefield Park - Bruce Trail Link - Greenhill to Bruce Trail to Glover Mtn	2019-2031	0.75	Multi-Use Trail	533,000	160,000		373,000	56,000	-	317,000	158,500	158,500
296	Devil's Punchbowl Link - Mountain Ave/ Lake Ave to Ridge Road/ Devil's	2019-2031	0.42	Multi-Use Trail	150,000	150,000		-	-	-	-	-	-
297	Gage Park - Cumberland to Montclair/ Maple	2019-2031	0.59	Multi-Use Trail	331,000	99,000		232,000	35,000	-	197,000	98,500	98,500
298	Iroquois Heights to Old Mohawk - Chedoke Rail Trail to Old Mohawk Road	2019-2031	0.85	Multi-Use Trail	318,000	95,000		223,000	33,000	-	190,000	95,000	95,000
299	Museum of Steam and Tech Link - Woodward to Red Hill Valley Trail	2019-2031	0.75	Multi-Use Trail	607,000	182,000		425,000	64,000	-	361,000	180,500	180,500
300	Ottawa Street South - Bruce Trail Link	2019-2031	0.39	Multi-Use Trail	686,000	206,000		480,000	72,000	-	408,000	204,000	204,000
301	Limeridge Mall Hydro Corridor Trail - Mohawk Road to South of Rymal	2019-2031	3.80	Multi-Use Trail	1,404,000	421,000		983,000	147,000	-	836,000	418,000	418,000
302	Fallsview - Sydenham to Rock Chapel Road	2019-2031	1.40	Multi-Use Trail	350,000	105,000		245,000	37,000	-	208,000	104,000	104,000
303	Hydro Corridor - Wilson/Highway 52 to Regional Road 56	2019-2031	12.70	Multi-Use Trail	7,617,000	2,285,000		5,332,000	800,000	-	4,532,000	2,266,000	2,266,000
304	Beddoe Drive Link	2019-2031	0.91	Multi-Use Trail	519,000	156,000		363,000	54,000	-	309,000	154,500	154,500
305	Hydro Corridor - Glancaster Road to Chippewa Rail Trail	2019-2031	7.70	Multi-Use Trail	5,763,000	1,729,000		4,034,000	605,000	-	3,429,000	1,714,500	1,714,500
306	Hydro Corridor - Chippewa Rail Trail to Fletcher Road	2019-2031	2.35	Multi-Use Trail	3,685,000	1,105,000		2,580,000	387,000	-	2,193,000	1,096,500	1,096,500



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Services Related to a Highway

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Length	Capital Improvement	Gross Capital Cost Estimate (2019\$)	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 50%	Non-Residential Share 50%
2019-2031													
307	Hydro Corridor - Trinity Road to Glancaster Road	2019-2031	10.00	Multi-Use Trail	7,617,000	2,285,000		5,332,000	800,000	-	4,532,000	2,266,000	2,266,000
308	Hydro Corridor - White Church Road	2019-2031	6.60	Multi-Use Trail	3,731,000	1,866,000		1,865,000	280,000	-	1,585,000	792,500	792,500
309	White Church Road West Airport Link	2019-2031	-	Multi-Use Trail	673,000	336,000		337,000	51,000	-	286,000	143,000	143,000
310	White Church Road West Link	2019-2031	-	Multi-Use Trail	1,315,000	657,000		658,000	99,000	-	559,000	279,500	279,500
311	Chippewa Road at Highway 6	2019-2031	0.02	Multi-Use Trail	125,000	38,000		87,000	13,000	-	74,000	37,000	37,000
312	Glancaster Road Link	2019-2031	-	Multi-Use Trail	495,000	248,000		247,000	37,000	-	210,000	105,000	105,000
313	Centre - Concession 8 E to Concession 7 E	2019-2031	1.80	Paved Shoulder	351,000	105,000		246,000	37,000	-	209,000	104,500	104,500
314	East Townline - Mud to Highland	2019-2031	1.10	Bike Lane	13,000	4,000		9,000	1,000	-	8,000	4,000	4,000
315	Centre - Warren/ Carlisle Road to Progreston	2019-2031	0.78	Paved Shoulder	151,000	45,000		106,000	16,000	-	90,000	45,000	45,000
316	Centre - Grinstone Creek to Concession 5 E	2019-2031	0.45	Paved Shoulder	88,000	27,000		61,000	9,000	-	52,000	26,000	26,000
317	Edgewood - Safari to Highway 6	2019-2031	0.90	Bike Lane	11,000	4,000		7,000	1,000	-	6,000	3,000	3,000
318	Binbrook Road - Trinity Church to Fletcher	2019-2031	1.26	Paved Shoulder	246,000	74,000		172,000	26,000	-	146,000	73,000	73,000
319	Ridge Road - Devil Punch Bowl to Dewitt	2019-2031	2.91	Multi-Use Trail	780,000	234,000		546,000	82,000	-	464,000	232,000	232,000
320	York Road - Olympic to Valley Road	2019-2031	1.70	Paved Shoulder	437,000	131,000		306,000	46,000	-	260,000	130,000	130,000
321	York Road & York Road at Old Guelph - Valley Road to Highway 6	2019-2031	2.50	Multi-Use Trail	1,433,000	430,000		1,003,000	150,000	-	853,000	426,500	426,500
322	Northlawn Avenue Link	2019-2031	1.10	Multi-Use Trail	400,000	120,000		280,000	42,000	-	238,000	119,000	119,000
323	Mosaic Drive - Parkside Drive to Highway 6	2019-2031	1.90	Multi-Use Trail	886,000	266,000		620,000	93,000	-	527,000	263,500	263,500
324	Valley Road - Rock Chapel to York Road	2019-2031	1.40	Paved Shoulder	312,000	94,000		218,000	33,000	-	185,000	92,500	92,500
325	Regional Road 56 south of Kirk - Southbrook to Binbrook Cons Area	2019-2031	3.00	Multi-Use Trail	780,000	234,000		546,000	82,000	-	464,000	232,000	232,000
326	Regional Road 56 - Swayze Road to Cemetery	2019-2031	4.60	Multi-Use Trail	3,119,000	936,000		2,183,000	327,000	-	1,856,000	928,000	928,000
327	Old Guelph Road - Paterson to York Bike Lane	2019-2031	3.53	Paved Shoulder	907,000	272,000		635,000	95,000	-	540,000	270,000	270,000
328	Hamilton Drive Link	2019-2031	-	Multi-Use Trail	1,980,000	1,980,000		-	-	-	-	-	-
Existing Debt:													
329	Debt on Expressway - Principal (discounted) ¹	2019-2025			17,811,239	-		17,811,239	-	-	17,811,239	13,002,194	4,809,045
330	Debt on Expressway - Interest (discounted) ¹	2019-2025			2,778,869	-		2,778,869	-	-	2,778,869	2,028,573	750,296
331	Debt on Various Growth Related Road Projects - Principal (discounted) ²	2019-2023			2,033,756	-		2,033,756	-	-	2,033,756	278,625	1,755,131
332	Debt on Various Growth Related Road Projects - Interest (discounted) ²	2019-2023			175,985	-		175,985	-	-	175,985	24,110	151,875
Future Financing:													
333	Waterdown Road (Burlington portion) - Mountain Brow Road to Craven Avenue - Growth Related Debt Interest (Discounted)	2020-2035			4,782,128	-		4,782,128	-	-	4,782,128	4,303,916	478,213
334	Reserve Fund Adjustment				-	-		-	13,535,975	-	(13,535,975)	(6,767,988)	(6,767,988)
Total					1,383,221,977	482,096,000	-	901,125,977	233,428,975	-	667,697,002	349,582,930	318,114,072

¹ Debt on Expressway Issued for 73% Residential portion and 27% Non-Residential portion

² Debt on Various Growth Related Road Projects Issued for 13.7% Residential portion and 86.3% Non-Residential portion

³ Residential/Non-Residential Split based on 90%/10%

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Item #	Project Name	From	To	Estimated Timing	Improvement Type	Length	Gross Capital Cost Estimate 2019\$	Gross Capital Cost including E.A. 2019\$	Gross Capital Cost 2019\$	Post Period Benefit	Developer Responsibility	Net Capital Estimate After Deduction 2019\$	Benefit to Existing (%)	Benefit to Existing (\$)	Benefit to Growth (%)	Benefit to Growth (\$)	Benefit to Growth (\$)
Waterdown Projects																	
77	Burke Street	Skinner Road	Mountain Brow	2023-2031	4u	0.47	\$3,183,280	\$3,948,280	\$3,948,000	0%	0%	\$3,948,000	5	\$197,000	95	\$3,750,600	\$3,751,000
78	Parkside Drive	Highway 6	Hollybush Drive	2023-2031	2r-4u	1.10	\$6,297,446	\$6,297,446	\$6,297,000	0%	0%	\$6,297,000	40	\$2,519,000	60	\$3,778,200	\$3,778,000
79	Parkside Drive	Main Street	Churchill (500 m east)	2023-2031	2r-4u	0.61	\$4,748,800	\$4,748,800	\$4,749,000	0%	0%	\$4,749,000	40	\$1,900,000	60	\$2,849,400	\$2,849,000
80	E-W Road Corridor (Waterdown By-Pass)	Dundas Street	Highway 6	2019-2022	4u	6.29	\$52,207,200	\$52,207,200	\$52,207,000	0%	0%	\$52,207,000	5	\$2,610,000	95	\$49,596,650	\$49,597,000
81	Waterdown Road (Burlington)	Mountain Brow Road	Craven Avenue	2019	2r-4u	1.90	\$24,720,000	\$24,720,000	\$24,720,000	0%	0%	\$24,720,000	0	\$0	100	\$24,720,000	\$24,720,000
82	Mountain Brow Road	Waterdown Road	New N-S Link (Burke Street)	2019-2022	2r-4u	0.91	\$7,654,024	\$7,654,024	\$7,654,000	0%	0%	\$7,654,000	15	\$1,148,000	85	\$6,505,900	\$6,506,000
83	Dundas Street	New north-south link	Hamilton Boundary	2023-2031	4u-6u	0.87	\$8,038,597	\$8,038,597	\$8,039,000	0%	0%	\$8,039,000	15	\$1,206,000	85	\$6,833,150	\$6,833,000
84	Centre Road	Northlawn	Parkside Drive	2019-2022	2r-3u	0.40	\$2,433,561	\$2,433,561	\$2,434,000	0%	0%	\$2,434,000	40	\$974,000	60	\$1,460,400	\$1,460,000
Fruitland Winona Projects																	
85	Barton Street	Fruitland Road	Fifty Road	2026	2r-3u	5.00	\$24,938,400	\$24,938,400	\$24,938,000	0%	0%	\$24,938,000	40	\$9,975,000	60	\$14,963,000	\$14,963,000
86	Fifty Road	O.E.W (South Service Road)	Highway 8	2023-2031	2r-4u	0.80	\$4,511,779	\$5,276,779	\$5,277,000	0%	0%	\$5,277,000	15	\$792,000	85	\$4,485,450	\$4,485,000
87	Fruitland Road By-pass	Barton Street	Highway 8	2019	4u	1.10	\$8,760,600	\$8,760,600	\$8,761,000	0%	0%	\$8,761,000	15	\$1,314,000	85	\$7,446,850	\$7,447,000
88	Fruitland Road	Arvin Avenue	Barton Street	2023-2031	2u-4u	0.30	\$2,245,285	\$3,010,285	\$3,010,000	0%	0%	\$3,010,000	15	\$452,000	85	\$2,558,500	\$2,558,000
89	Highway 8 (Stoney Creek)*	Dewitt Road	Fruitland Road	2023-2031	2r-5u	0.80	\$6,534,000	\$6,534,000	\$6,534,000	0%	0%	\$6,534,000	40	\$2,614,000	60	\$3,920,400	\$3,920,000
90	Highway 8 (Stoney Creek)	Fruitland Road	East City Limit	2023-2031	2r-4r NBR	6.18	\$20,673,968	\$20,673,968	\$20,674,000	0%	0%	\$20,674,000	40	\$8,270,000	60	\$12,404,400	\$12,404,000
Elfrida Boundary Expansion Projects																	
91	First Road East	Highway 20	Mud Street	2023-2031	2r-3u	2.10	\$11,463,696	\$12,228,696	\$12,229,000	66%	0%	\$4,158,000	15	\$624,000	85	\$3,534,300	\$3,534,000
92	First Road East (overizing)	Highway 20	Golf Club Road	2023-2031	3u	2.21	\$3,224,515	\$3,224,515	\$3,225,000	66%	0%	\$1,096,000	0	\$0	100	\$1,096,000	\$1,096,000
93	Fletcher Road*	500m South of Rymal	Golf Club Road	2023-2031	2r-3u	1.60	\$9,359,245	\$10,124,245	\$10,124,000	66%	0%	\$3,442,000	15	\$516,000	85	\$2,925,700	\$2,926,000
94	Golf Club Road	Trinity Church Road	Hendershot Road	2023-2031	2r-2u	7.00	\$29,030,030	\$29,795,030	\$29,795,000	66%	0%	\$10,130,000	15	\$1,520,000	85	\$8,610,500	\$8,610,000
95	Hendershot Road	Highway 20	Golf Club Road	2023-2031	2r-3u	2.10	\$10,728,696	\$10,728,696	\$10,729,000	66%	0%	\$3,648,000	15	\$547,000	85	\$3,100,800	\$3,101,000
96	Highland Road	Upper Centennial Parkway	Second Road East	2023-2031	2r-3u	2.00	\$9,542,806	\$10,307,806	\$10,308,000	66%	0%	\$3,505,000	15	\$526,000	85	\$2,979,250	\$2,979,000
97	Mud Street	Upper Centennial Parkway	Second Road East	2023-2031	2r-2u	2.00	\$8,401,437	\$9,166,437	\$9,166,000	66%	0%	\$3,117,000	15	\$468,000	85	\$2,649,450	\$2,649,000
98	Second Road East	Highway 20	Mud Street	2023-2031	2r-3u	3.00	\$14,501,709	\$15,266,709	\$15,267,000	66%	0%	\$5,191,000	15	\$779,000	85	\$4,412,350	\$4,412,000
99	Trinity Church Road*	Hydro corridor	Golf Club Road	2023-2031	2r-2u	2.00	\$8,776,437	\$9,541,437	\$9,541,000	66%	0%	\$3,244,000	15	\$487,000	85	\$2,757,400	\$2,757,000
100	Upper Centennial Parkway	Green Mountain Road	Highway 20	2023-2031	4r-5u	2.90	\$19,346,099	\$20,111,099	\$20,111,000	66%	0%	\$6,838,000	15	\$1,026,000	85	\$5,812,300	\$5,812,000
Other Road Projects																	
101	Binbrook Road	Royal Winter Dr/Binhaven Rd	Fletcher Road	2019	2r-3u	0.70	\$6,840,000	\$6,840,000	\$6,840,000	0%	0%	\$6,840,000	15	\$1,026,000	85	\$5,814,000	\$5,814,000
102	Highway 8 (Dundas)	Bond Street	Dundas Limits	2023-2031	2r-3u	0.40	\$2,433,561	\$3,198,561	\$3,199,000	0%	0%	\$3,199,000	40	\$1,280,000	60	\$1,919,400	\$1,919,000
103	Highway 8 (Dundas)	Hillcrest	Park Ave	2020	2r-3u	0.60	\$2,565,600	\$2,565,600	\$2,566,000	0%	0%	\$2,566,000	40	\$1,026,000	60	\$1,539,600	\$1,540,000
104	Jones Road	Barton Street	South Service Road	2023-2031	2r-2i	0.90	\$3,718,600	\$3,738,600	\$3,739,000	0%	0%	\$3,739,000	50	\$1,470,000	50	\$1,869,500	\$1,869,000
105	Lewis Road	Barton Street	South Service Road	2023-2031	2r-2i	0.80	\$3,402,000	\$3,402,000	\$3,402,000	0%	0%	\$3,402,000	50	\$1,701,000	50	\$1,701,000	\$1,701,000
106	Longwood Road	Aberdeen Avenue	Main Street	2023-2031	various/ESR	0.65	\$4,796,400	\$5,561,400	\$5,561,000	0%	0%	\$5,561,000	50	\$2,781,500	50	\$2,780,500	\$2,780,000
107	Miles Road	Rymal Road	Hydro Corridor	2023-2031	2r-3i	2.00	\$10,004,400	\$10,769,400	\$10,769,000	0%	0%	\$10,769,000	15	\$1,615,000	85	\$9,153,650	\$9,154,000
108	Miles Road	Barton Street	South Service Road	2023-2031	2r-3i	1.00	\$5,353,200	\$6,118,200	\$6,118,000	0%	0%	\$6,118,000	40	\$2,447,000	60	\$3,670,800	\$3,671,000
109	Fletcher Road	Binbrook Road	Golf Club Road	2023-2031	2r-2u	4.20	\$17,568,018	\$17,568,018	\$17,568,000	0%	0%	\$17,568,000	40	\$7,027,000	60	\$10,540,800	\$10,541,000
110	South Service Road	Gray	Miller Road	2023-2031	2r-3u	1.70	\$1,253,722	\$8,019,722	\$8,019,000	0%	0%	\$1,253,722	50	\$1,203,000	50	\$6,816,150	\$6,816,000
111	Trinity Church Road	Binbrook Road	Golf Club Road	2023-2031	2r-2u	5.20	\$9,032,400	\$9,032,400	\$9,032,000	0%	0%	\$9,032,000	40	\$3,613,000	60	\$5,419,200	\$5,419,000
112	Twenty Road	Aldercrest Avenue	600m west of Nello Road	2023-2031	2r-2u	4.10	\$16,290,000	\$16,290,000	\$16,290,000	0%	0%	\$16,290,000	40	\$6,516,000	60	\$9,774,000	\$9,774,000
113	Upper Gage Street	Mohawk Road	Thorley	2023-2031	4u-5u	0.60	\$4,516,176	\$5,281,176	\$5,281,000	0%	0%	\$5,281,000	50	\$2,641,500	50	\$2,640,500	\$2,640,000
114	Upper Wellington Street	Limeridge Street	Stone Church Road	2019-2022	2r-5u	1.20	\$9,349,527	\$9,349,527	\$9,350,000	0%	0%	\$9,350,000	40	\$3,740,000	60	\$5,610,000	\$5,610,000
115	Shaver Road	Highway 403	Wilson Street	2019-2022	2r-3u	1.50	\$6,188,578	\$6,188,578	\$6,189,000	0%	0%	\$6,189,000	15	\$928,000	85	\$5,260,650	\$5,261,000
116	Scenic Drive	Lavender Drive (south leg)	Old City Limits	2019-2022	2r-2u	1.40	\$5,806,006	\$6,571,006	\$6,571,000	0%	0%	\$6,571,000	40	\$2,628,600	60	\$3,942,600	\$3,943,000
117	North Service Road	Green Road	East City Limits	2019-2022	Intersection		\$2,248,000	\$3,013,000	\$3,013,000	0%	0%	\$3,013,000	0	\$0	100	\$3,013,000	\$3,013,000
118	Victoria Avenue	Ferrie Street	Burlington Street	2019	2-way conversion	0.46	\$459,000	\$1,224,000	\$1,224,000	0%	0%	\$1,224,000	15	\$184,000	85	\$1,040,400	\$1,040,000
119	Hwy 5/6 municipal roads (City portion)			2019-2022	Service Roads		\$22,980,640	\$22,980,640	\$22,981,000	0%	0%	\$22,981,000	0	\$0	100	\$22,981,000	\$22,981,000
120	Post Period Benefit Deduction			2019-2031						100%		-\$175,000,000	0	\$0	100	\$0	-\$175,000,000
Major Structures																	
121	Hwy 5/6 interchange			2019-2022	Structure		\$17,534,400	\$18,299,400	\$18,299,000	0%	0%	\$18,299,000	0	\$0	100	\$18,299,000	\$18,299,000
122	Strathcona Pedestrian Bridge			2027	Structure		\$6,836,000	\$7,601,000	\$7,601,000	0%	0%	\$7,601,000	15	\$1,140,000	85	\$6,460,850	\$6,461,000
123	Fifty Road	Grade Separation		2029	Structure		\$25,000,000	\$25,765,000	\$25,765,000	50%	0%	\$12,883,000	25	\$3,221,700	75	\$9,662,250	\$9,662,000
124	Other Rail Grade Separations	Grade Separation		2024-2031	Structure		\$25,000,000	\$25,765,000	\$25,765,000	50%	0%	\$12,883,000	25	\$3,221,700	75	\$9,662,250	\$9,662,000
125	Mohawk Road			2019-2022	Hwy 403 WB on-ramp		\$3,934,000	\$3,934,000	\$3,934,000	0%	0%	\$3,934,000	50	\$1,967,000	50	\$1,967,000	\$1,967,000
Programs																	
126	Intersection Pedestrian Signal			2019-2031	City-Wide Program		\$11,700,000	\$11,700,000	\$11,700,000	0%	0%	\$11,700,000	5	\$585,000	95	\$11,115,000	\$11,115,000
127	Traffic Count Program			2019-2031	City-Wide Program		\$2,000,000	\$2,000,000	\$2,000,000	0%	0%	\$2,000,000	5	\$100,000	95	\$1,900,000	\$1,900,000
128	Geotechnical Investigation Program			2019-2031	City-Wide Program		\$9,100,000	\$9,100,000	\$9,100,000	0%	0%	\$9,100,000	85	\$7,735,000	15	\$1,365,000	\$1,365,000
129	Mapping Update Program			2019-2031	City-Wide Program		\$305,000	\$305,000	\$305,000	0%	0%	\$305,000	5	\$15,000	95	\$289,750	\$290,000
130	Active Transportation Benchmarking			2019-2031	City-Wide Program		\$390,000	\$390,000	\$390,000	0%	0%	\$390,000	5	\$20,000	95	\$370,500	\$370,000
131	Development Road Urbanization			2019-2031	City-Wide Program		\$6,500,000	\$6,500,000	\$6,500,000	0%	0%	\$6,500,000	5	\$325,000	95	\$6,175,000	\$6,175,000
132	Street Lighting Enhancement Program			2019-2031	City-Wide Program		\$3,250,000	\$3,250,000	\$3,250,000	0%	0%	\$3,250,000	5	\$163,000	95	\$3,087,500	\$3,087,000
133	Pedestrian Crossovers			2019-2031	City-Wide Program		\$900,000	\$900,000	\$900,000	0%	0%	\$900,000	5	\$45,000	95	\$855,000	\$855,000
134	Advanced Traffic Management Systems			2019-2031	City-Wide Program		\$14,390,000	\$14,390,000	\$14,390,000	0%	0%	\$14,390,000	75	\$10,793,000	25	\$3,597,500	\$3,597,000
135	Express Bus (L.A.S.T. Line) Enhanced Passenger Amenities			2019-2031	City-Wide Program		\$8,010,000	\$8,01									



Item #	Project Name	From	To	Estimated Timing	Improvement Type	Length	Gross Capital Cost Estimate 2019\$	Gross Capital Cost Including E.A. 2019\$	Gross Capital Cost 2019\$	Post Period Benefit	Developer Responsibility	Net Capital Estimate After Deduction 2019\$	Benefit to Existing (%)	Benefit to Existing (\$)	Benefit to Growth (%)	Benefit to Growth (\$)	Benefit to Growth (\$)
152	Annual Transit Priority Measures			2019-2031	City-Wide Program		\$17,472,130	\$17,472,130	\$17,472,000	0%	0%	\$17,472,000	50	\$8,736,000	50	\$8,736,000	\$8,736,000
153	Annual Bike Parking at B/A Line Stops			2019-2031	City-Wide Program		\$45,972	\$45,972	\$46,000	0%	0%	\$46,000	50	\$23,000	50	\$23,000	\$23,000
154	Annual Enhanced Bike Parking at Express Bus/Rapid Transit Stops			2019-2031	City-Wide Program		\$275,155	\$275,155	\$275,000	0%	0%	\$275,000	50	\$138,000	50	\$137,500	\$137,000
155	Transportation Demand Management			2019-2031	City-Wide Program		\$2,000,000	\$2,000,000	\$2,000,000	0%	0%	\$2,000,000	50	\$1,000,000	50	\$1,000,000	\$1,000,000
Studies																	
156	Complete and Liveable Streets Guidelines			2019-2022	Study		\$250,000	\$250,000	\$250,000	0%	0%	\$250,000	0	\$0	100	\$250,000	\$250,000
157	Cycling Master Plan Review			2023-2031	Study		\$200,000	\$200,000	\$200,000	0%	0%	\$200,000	0	\$0	100	\$200,000	\$200,000
158	E.M.M.E Model Management			2019-2021	Monitoring		\$1,040,000	\$1,040,000	\$1,040,000	0%	0%	\$1,040,000	0	\$0	100	\$1,040,000	\$1,040,000
159	Goods Movement Study Review and Update			2019-2022	Study		\$150,000	\$150,000	\$150,000	0%	0%	\$150,000	0	\$0	100	\$150,000	\$150,000
160	Intelligent Transportation System Strategy			2019-2022	Study		\$250,000	\$250,000	\$250,000	0%	0%	\$250,000	0	\$0	100	\$250,000	\$250,000
161	Lincoln Alexander and Red Hill Valley Parkway Widening Feasibility Study			2019-2022	Study		\$500,000	\$500,000	\$500,000	0%	0%	\$500,000	0	\$0	100	\$500,000	\$500,000
162	Multi-modal Level of Service Guidelines			2019-2022	Study		\$250,000	\$250,000	\$250,000	0%	0%	\$250,000	0	\$0	100	\$250,000	\$250,000
163	Pedestrian Mobility Plan Review			2023-2031	Study		\$200,000	\$200,000	\$200,000	0%	0%	\$200,000	0	\$0	100	\$200,000	\$200,000
164	Revenue Tools Study			2019-2022	Study		\$250,000	\$250,000	\$250,000	0%	0%	\$250,000	0	\$0	100	\$250,000	\$250,000
165	Transportation Master Plan Review			2023-2031	Study		\$250,000	\$250,000	\$250,000	0%	0%	\$250,000	0	\$0	100	\$250,000	\$250,000
166	Truck Route Master Plan Review			2019-2022	Study		\$250,000	\$250,000	\$250,000	0%	0%	\$250,000	0	\$0	100	\$250,000	\$250,000
167	Escarpment Crossing People Mover Study			2023-2031	Study		\$200,000	\$200,000	\$200,000	0%	0%	\$200,000	0	\$0	100	\$200,000	\$200,000
Active Transportation Projects																	
168	Red Hill Pedestrian Crossing	Eugene Street	Glen grove Avenue	2019-2031	Pedestrian Crossing		\$1,750,000	\$1,750,000	\$1,750,000	30%	0%	\$1,225,000	15	\$184,000	85	\$1,041,250	\$1,041,000
169	Heritage Green Trail Link			2019-2031	Commuter Trail		\$525,000	\$525,000	\$525,000	30%	0%	\$368,000	15	\$55,000	85	\$312,800	\$313,000
170	Framborough Y.M.C.A. Trail Link			2019-2031	Commuter Trail		\$565,000	\$565,000	\$565,000	30%	0%	\$396,000	15	\$59,000	85	\$336,600	\$337,000
171	Centre Road Link			2019-2031	Commuter Trail		\$640,000	\$640,000	\$640,000	30%	0%	\$448,000	15	\$67,000	85	\$380,800	\$381,000
172	Kenns Road Waterdown South Link			2019-2031	Multi-Use Trail		\$957,000	\$957,000	\$957,000	30%	0%	\$670,000	15	\$101,000	85	\$569,500	\$569,000
173	Hunter	MacNab	Catharine	2019-2031	Bike Lane	0.47	\$77,981	\$77,981	\$78,000	30%	0%	\$55,000	15	\$8,000	85	\$46,750	\$47,000
174	Hunter	Liberty	Claremont Access	2019-2031	Bike Lane	0.23	\$31,192	\$31,192	\$31,000	30%	0%	\$22,000	15	\$3,000	85	\$18,700	\$19,000
175	Wilson	James	Sherman	2019-2031	Bike Lane	2.55	\$81,120	\$81,120	\$81,000	30%	0%	\$57,000	15	\$9,000	85	\$48,450	\$48,000
176	Ferguson	Hunter	Charlton	2019-2031	Bike Lane	0.20	\$2,339	\$2,339	\$2,000	30%	0%	\$2,000	15	\$0	85	\$1,700	\$2,000
177	King over Red Hill Valley Parkway	Lawrence	Pottruff	2019-2031	Bike Lane	0.50	\$27,293	\$27,293	\$27,000	30%	0%	\$19,000	15	\$3,000	85	\$16,150	\$16,000
178	Locke	King	Hunter	2019-2031	Bike Lane	1.28	\$7,993	\$7,993	\$8,000	30%	0%	\$5,000	15	\$1,000	85	\$5,100	\$5,000
179	Barton	Lake	Red Hill Valley	2019-2031	Bike Lane	1.61	\$23,943	\$23,943	\$24,000	30%	0%	\$164,000	15	\$25,000	85	\$139,400	\$139,000
180	Wilson in Ancaster	Rousseau	Helson	2019-2031	Bike Lane	0.85	\$19,885	\$19,885	\$20,000	30%	0%	\$14,000	15	\$2,000	85	\$11,900	\$12,000
181	Barton	Brookley	Fruitland	2019-2031	Bike Lane	3.95	\$123,210	\$123,210	\$123,000	30%	0%	\$86,000	15	\$13,000	85	\$73,100	\$73,000
182	Gage	Industrial	Lawrence	2019-2031	Bike Lane	2.96	\$115,412	\$115,412	\$115,000	30%	0%	\$81,000	15	\$12,000	85	\$69,000	\$69,000
183	Hunter Street - Escarpment Rail Trail Link	Hunter	West 5th at Fennell	2019-2031	Multi-Use Trail	3.50	\$3,275,212	\$3,275,212	\$3,275,000	30%	0%	\$2,293,000	15	\$344,000	85	\$1,949,000	\$1,949,000
184	Canon	Sherman	Lotbridge	2019-2031	Bike Lane	0.42	\$16,493	\$16,493	\$16,000	30%	0%	\$12,000	15	\$2,000	85	\$10,200	\$10,000
185	First Rd W/Whitdecker/Terryberry & Picardy/ Highway	Glover Mtn Road/ Ridgeview Dr	Bymal/ Bellagio	2019-2031	Bike Lane	4.08	\$47,666	\$47,666	\$48,000	30%	0%	\$33,000	15	\$5,000	85	\$28,050	\$28,000
186	Olympic Park Twin Pad Arena Link	Chedoke Rail Trail	Old Mohawk Road	2019-2031	Multi-Use Trail	1.50	\$831,000	\$831,000	\$831,000	30%	0%	\$582,000	15	\$87,000	85	\$494,700	\$495,000
187	Dundas St	Main	Cootes	2019-2031	Bike Lane	0.68	\$15,908	\$15,908	\$16,000	30%	0%	\$11,000	15	\$2,000	85	\$9,350	\$9,000
188	Mohawk	Old Mohawk	Upper Paradise	2019-2031	Bike Lane	1.83	\$46,789	\$46,789	\$47,000	30%	0%	\$33,000	15	\$5,000	85	\$28,050	\$28,000
189	Hatt	Peel	Main	2019-2031	Bike Lane	0.93	\$29,029	\$29,029	\$29,000	30%	0%	\$20,000	15	\$3,000	85	\$17,000	\$17,000
190	Eastport Drive Lift Bridge Link			2019-2031	Multi-Use Trail		\$1,750,000	\$1,750,000	\$1,750,000	30%	0%	\$1,225,000	15	\$184,000	85	\$1,041,250	\$1,041,000
191	Beach Bike Lane	under QEW		2019-2031	Bike Lane	0.24	\$7,486	\$7,486	\$7,000	30%	0%	\$5,000	15	\$1,000	85	\$4,250	\$4,000
192	Beach Boulevard	lth Bridge	Van Wagner's	2019-2031	Bike Lane	4.25	\$93,577	\$93,577	\$94,000	30%	0%	\$66,000	15	\$10,000	85	\$56,100	\$56,000
193	Van Wagner's	Beach Bike Lane	Centennial Parkway	2019-2031	Bike Lane	2.50	\$77,981	\$77,981	\$78,000	30%	0%	\$55,000	15	\$8,000	85	\$46,750	\$47,000
194	Montclair/ Central/ Graham/ Frederick			2019-2031	Bike Lane	3.80	\$18,716	\$18,716	\$19,000	30%	0%	\$13,000	15	\$2,000	85	\$11,050	\$11,000
195	Melvin	Strathhearn/ Shelby	Red Hill Valley Trail	2019-2031	Bike Lane	1.90	\$59,266	\$59,266	\$59,000	30%	0%	\$41,000	15	\$6,000	85	\$34,850	\$35,000
196	Britania	Cannon	Walter	2019-2031	Bike Lane	0.84	\$22,271	\$22,271	\$22,000	30%	0%	\$16,000	15	\$2,000	85	\$13,600	\$14,000
197	Creighton/ Market	Hatt/ King	Governor's	2019-2031	Bike Lane	0.95	\$24,954	\$24,954	\$25,000	30%	0%	\$17,000	15	\$3,000	85	\$14,450	\$14,000
198	Oldway/ Old Ancaster	Hatt/ King	Hamilton-Brantford Rail Trail	2019-2031	Bike Lane	0.80	\$13,569	\$13,569	\$14,000	30%	0%	\$9,000	15	\$1,000	85	\$7,650	\$8,000
199	Longwood	Franklin	King	2019-2031	Bike Lane	0.73	\$16,961	\$16,961	\$17,000	30%	0%	\$12,000	15	\$2,000	85	\$10,200	\$10,000
200	Mountain Brow in Waterdown	Mill	Burke to King Road	2019-2031	Multi-Use Trail	1.20	\$660,000	\$660,000	\$660,000	30%	0%	\$462,000	15	\$69,000	85	\$392,700	\$393,000
201	Golf Links/ Halson	Wilson	Southcote	2019-2031	Bike Lane	1.19	\$27,839	\$27,839	\$28,000	30%	0%	\$19,000	15	\$3,000	85	\$16,150	\$16,000
202	Meadowbrook		Lake	2019-2031	Bike Lane	1.00	\$16,224	\$16,224	\$16,000	30%	0%	\$11,000	15	\$2,000	85	\$9,350	\$9,000
203	West 5th	Mohawk College Access	Marlowe	2019-2031	Bike Lane	1.13	\$70,495	\$70,495	\$70,000	30%	0%	\$49,000	15	\$7,000	85	\$41,450	\$42,000
204	Limeridge	Garth/ Bonaventure	West 5th/ Hawkridge	2019-2031	Bike Lane	1.37	\$53,418	\$53,418	\$53,000	30%	0%	\$37,000	15	\$6,000	85	\$31,450	\$31,000
205	Scenic	Chedoke Rail Trail	Upper Paradise	2019-2031	Bike Lane	2.27	\$26,553	\$26,553	\$27,000	30%	0%	\$19,000	15	\$3,000	85	\$16,150	\$16,000
206	Green Mountain	First Road W	First Road E	2019-2031	Bike Lane	1.50	\$292,429	\$292,429	\$292,000	30%	0%	\$205,000	15	\$31,000	85	\$174,250	\$174,000
207	Walnut Grove & Sanctuary Park	Walnut Grove/ Ogilvie	Highland Park Dr	2019-2031	Multi-Use Trail	0.40	\$365,683	\$365,683	\$366,000	30%	0%	\$256,000	15	\$38,000	85	\$217,600	\$218,000
208	Scenic/ Denlow	Upper Paradise	Garth	2019-2031	Bike Lane	0.95	\$11,112	\$11,112	\$11,000	30%	0%	\$8,000	15	\$1,000	85	\$6,800	\$7,000
209	Waterdown local streets			2019-2031	Bike Lane	0.00	\$77,981	\$77,981	\$78,000	30%	0%	\$55,000	15	\$8,000	85	\$46,750	\$47,000
210	Frid/Chatham	Longwood	Dundurn	2019-2031	Bike Lane	1.00	\$5,849	\$5,849	\$6,000	30%	0%	\$4,000	15	\$1,000	85	\$3,400	\$3,000
211	Fiddler's Green	Jersenville	Wilson	2019-2031	Bike Lane	0.25	\$5,849	\$5,849	\$6,000	30%	0%	\$4,000	15	\$1,000	85	\$3,400	\$3,000
212	Upper Wentworth	Fennell	East 24th	2019-2031	Bike Lane	1.03	\$40,160	\$40,160	\$40,000	30%	0%	\$28,000	15	\$4,000	85	\$23,800	\$24,000
213	Barton	Fruitland	Fifty	2019-2031	Multi-Use Trail	5.00	\$2,646,652	\$2,646,652	\$2,647,000	30%	0%	\$1,853,000	15	\$278,000	85	\$1,575,050	\$1,575,000
214	Queensdale	Upper Sherman															



Item #	Project Name	From	To	Estimated Timing	Improvement Type	Length	Gross Capital Cost Estimate 20195	Gross Capital Cost Including E.A. 20195	Gross Capital Cost 20195	Post Period Benefit	Developer Responsibility	Net Capital Estimate After Deduction 20195	Benefit to Existing (%)	Benefit to Existing (\$)	Benefit to Growth (%)	Benefit to Growth (\$)	Benefit to Growth (\$)
232	Stuart Street Rail Link			2019-2031	Multi-Use Trail		\$254,424	\$254,424	\$254,000	30%	0%	\$178,000	15	\$27,000	85	\$151,300	\$151,000
233	Mud Street			2019-2031	Multi-Use Trail	0.50	\$136,000	\$136,000	\$136,000	30%	0%	\$95,000	15	\$14,000	85	\$80,750	\$81,000
234	William Connell Park Link		Rymal	2019-2031	Multi-Use Trail	0.70	\$689,459	\$689,459	\$689,000	30%	0%	\$483,000	15	\$72,000	85	\$410,550	\$411,000
235	Upper James		William Connell Park	2019-2031	Multi-Use Trail	0.38	\$225,238	\$225,238	\$225,000	30%	0%	\$158,000	15	\$24,000	85	\$134,300	\$134,000
236	Gray/ Gray		Confederation Park gate	2019-2031	Bike Lane	3.00	\$116,977	\$116,977	\$117,000	30%	0%	\$82,000	15	\$12,000	85	\$69,700	\$70,000
237	King in Dundas		Bond	2019-2031	Bike Lane	0.80	\$31,192	\$31,192	\$31,000	30%	0%	\$22,000	15	\$3,000	85	\$18,700	\$19,000
238	Warrington/ South Service/ Lake		Centennial Parkway	2019-2031	Bike Lane	2.05	\$77,981	\$77,981	\$78,000	30%	0%	\$55,000	15	\$8,000	85	\$46,750	\$47,000
239	Marston		Paramount	2019-2031	Bike Lane	0.40	\$13,520	\$13,520	\$14,000	30%	0%	\$9,000	15	\$1,000	85	\$7,650	\$8,000
240	Kenora/ Greenford/ Owen		Bancroft	2019-2031	Bike Lane	2.60	\$171,559	\$171,559	\$172,000	30%	0%	\$120,000	15	\$18,000	85	\$102,000	\$102,000
241	Centennial Parkway		North Service	2019-2031	Multi-Use Trail	1.20	\$155,963	\$155,963	\$156,000	30%	0%	\$109,000	15	\$16,000	85	\$92,650	\$93,000
242	Victoria		Barton	2019-2031	Bike Lane	1.04	\$40,356	\$40,356	\$40,000	30%	0%	\$28,000	15	\$4,000	85	\$23,800	\$24,000
243	Kentley		Eugene	2019-2031	Bike Lane	0.40	\$3,744	\$3,744	\$4,000	30%	0%	\$3,000	15	\$0	85	\$2,550	\$3,000
244	Whitney		Emerson	2019-2031	Bike Lane	1.50	\$46,789	\$46,789	\$47,000	30%	0%	\$33,000	15	\$5,000	85	\$28,050	\$28,000
245	West 5th		Penzell	2019-2031	Multi-Use Trail	0.33	\$28,268	\$28,268	\$28,000	30%	0%	\$20,000	15	\$3,000	85	\$17,000	\$17,000
246	Millen		Shoreview	2019-2031	Bike Lane	0.50	\$31,192	\$31,192	\$31,000	30%	0%	\$22,000	15	\$3,000	85	\$18,700	\$19,000
247	King in Stoney Creek		Battlefield/ Elm	2019-2031	Bike Lane	0.74	\$15,597	\$15,597	\$16,000	30%	0%	\$11,000	15	\$2,000	85	\$9,350	\$9,000
248	Limeridge		Mtn Brow	2019-2031	Bike Lane	1.98	\$70,184	\$70,184	\$70,000	30%	0%	\$49,000	15	\$7,000	85	\$41,650	\$42,000
249	Dewitt		Dundee	2019-2031	Bike Lane	0.50	\$750,000	\$750,000	\$750,000	30%	0%	\$525,000	15	\$79,000	85	\$446,250	\$446,000
250	Claremont Access		Inverness	2019-2031	Bike Lane	1.60	\$49,908	\$49,908	\$50,000	30%	0%	\$35,000	15	\$5,000	85	\$29,750	\$30,000
251	Inverness		Upper James	2019-2031	Bike Lane	0.44	\$10,816	\$10,816	\$11,000	30%	0%	\$8,000	15	\$1,000	85	\$6,800	\$7,000
252	Burlington Street Link		Ferguson/ Dock Service Road	2019-2031	Bike Lane	1.88	\$104,495	\$104,495	\$104,000	30%	0%	\$73,000	15	\$11,000	85	\$62,050	\$62,000
253	Dundas St in Watertown		Highway 6	2019-2031	Bike Lane	2.75	\$128,668	\$128,668	\$129,000	30%	0%	\$90,000	15	\$14,000	85	\$76,500	\$76,000
254	Hollybush		Parkside	2019-2031	Bike Lane	1.40	\$128,597	\$128,597	\$129,000	30%	0%	\$90,000	15	\$14,000	85	\$76,500	\$76,000
255	Greenhill		Sumnercrest	2019-2031	Bike Lane	1.20	\$46,789	\$46,789	\$47,000	30%	0%	\$33,000	15	\$5,000	85	\$28,050	\$28,000
256	Governor's		Ogilvie	2019-2031	Bike Lane	0.24	\$43,045	\$43,045	\$43,000	30%	0%	\$30,000	15	\$5,000	85	\$25,500	\$25,000
257	Queenston/ Highway 8		Glover	2019-2031	Bike Lane	3.80	\$681,555	\$681,555	\$682,000	30%	0%	\$477,000	15	\$72,000	85	\$405,450	\$405,000
258	Burlington Street East Boulevard Trail		Ottawa	2019-2031	Multi-Use Trail	2.30	\$1,050,000	\$1,050,000	\$1,050,000	30%	0%	\$735,000	15	\$110,000	85	\$624,750	\$625,000
259	Queenston/ Highway 8		King	2019-2031	Bike Lane	1.37	\$245,719	\$245,719	\$246,000	30%	0%	\$172,000	15	\$26,000	85	\$146,200	\$146,000
260	Greenhill		Harrisford	2019-2031	Bike Lane	1.94	\$75,642	\$75,642	\$76,000	30%	0%	\$53,000	15	\$8,000	85	\$45,050	\$45,000
261	Mill in Watertown		Parkside	2019-2031	Bike Lane	0.95	\$22,224	\$22,224	\$22,000	30%	0%	\$16,000	15	\$2,000	85	\$13,600	\$14,000
262	King in Stoney Creek		Gray	2019-2031	Bike Lane	1.51	\$77,981	\$77,981	\$78,000	30%	0%	\$55,000	15	\$8,000	85	\$46,750	\$47,000
263	Rouses/ Mohawk		Wilson	2019-2031	Bike Lane	1.60	\$224,586	\$224,586	\$225,000	30%	0%	\$157,000	15	\$24,000	85	\$133,450	\$133,000
264	Baseline/ Lodgport		Winona	2019-2031	Bike Lane	1.15	\$23,395	\$23,395	\$23,000	30%	0%	\$16,000	15	\$2,000	85	\$14,000	\$14,000
265	Winona		Lido/ shore	2019-2031	Bike Lane	1.97	\$45,969	\$45,969	\$46,000	30%	0%	\$32,000	15	\$5,000	85	\$27,200	\$27,000
266	Cherry Beach Road Link		Millen	2019-2031	Multi-Use Trail	0.91	\$233,943	\$233,943	\$234,000	30%	0%	\$164,000	15	\$25,000	85	\$139,400	\$139,000
267	North Service Road		Dewitt	2019-2031	Bike Lane	0.73	\$15,597	\$15,597	\$16,000	30%	0%	\$11,000	15	\$2,000	85	\$9,350	\$9,000
268	North Service Road		Baseline	2019-2031	Bike Lane	0.98	\$23,395	\$23,395	\$23,000	30%	0%	\$16,000	15	\$2,000	85	\$13,600	\$14,000
269	Upper Sherman		Stone Church	2019-2031	Bike Lane	1.00	\$379,354	\$379,354	\$379,000	30%	0%	\$265,000	15	\$40,000	85	\$205,000	\$205,000
270	Emperor		Brigade	2019-2031	Bike Lane	0.44	\$15,597	\$15,597	\$16,000	30%	0%	\$11,000	15	\$2,000	85	\$9,350	\$9,000
271	Burlington/ Industrial		Sherman	2019-2031	Bike Lane	0.86	\$99,018	\$99,018	\$99,000	30%	0%	\$69,000	15	\$10,000	85	\$58,650	\$59,000
272	Birch/ Holton		Burlington St	2019-2031	Bike Lane	1.40	\$31,192	\$31,192	\$31,000	30%	0%	\$22,000	15	\$3,000	85	\$18,700	\$19,000
273	Dewitt		Barton	2019-2031	Bike Lane	0.90	\$121,055	\$121,055	\$121,000	30%	0%	\$84,000	15	\$12,000	85	\$72,000	\$72,000
274	Chemac		Rice	2019-2031	Bike Lane	0.53	\$23,395	\$23,395	\$23,000	30%	0%	\$16,000	15	\$2,000	85	\$14,000	\$14,000
275	Kilbride		Upper Ottawa	2019-2031	Bike Lane	0.38	\$8,889	\$8,889	\$9,000	30%	0%	\$6,000	15	\$1,000	85	\$5,100	\$5,000
276	Hamilton in Watertown		Centre/Main	2019-2031	Bike Lane	1.00	\$62,385	\$62,385	\$62,000	30%	0%	\$44,000	15	\$7,000	85	\$37,400	\$37,000
277	Osler/ Main		Hatz/ King	2019-2031	Bike Lane	2.00	\$87,880	\$87,880	\$88,000	30%	0%	\$62,000	15	\$9,000	85	\$52,700	\$53,000
278	Fiddler's Green		Amberly	2019-2031	Bike Lane	0.68	\$21,212	\$21,212	\$21,000	30%	0%	\$15,000	15	\$2,000	85	\$12,750	\$13,000
279	Shaver		Wilson	2019-2031	Bike Lane	0.52	\$12,165	\$12,165	\$12,000	30%	0%	\$9,000	15	\$1,000	85	\$7,650	\$8,000
280	Upper James		Twenty	2019-2031	Multi-Use Trail	4.05	\$1,152,757	\$1,152,757	\$1,153,000	30%	0%	\$807,000	15	\$121,000	85	\$686,950	\$686,000
281	Christie-Tews		Christie C.A	2019-2031	Multi-Use Trail	2.75	\$1,123,693	\$1,123,693	\$1,124,000	30%	0%	\$787,000	15	\$118,000	85	\$669,050	\$669,000
282	Fennell Avenue Boulevard Trail		Ganthy West 18th	2019-2031	Multi-Use Trail	1.20	\$412,100	\$412,100	\$412,000	30%	0%	\$288,000	15	\$43,000	85	\$244,800	\$245,000
283	Jones Road Link		Mohawk	2019-2031	Multi-Use Trail	1.81	\$374,038	\$374,038	\$374,000	30%	0%	\$262,000	15	\$39,000	85	\$222,700	\$223,000
284	Mountain Brow Boulevard Trail		Arbour	2019-2031	Multi-Use Trail	0.81	\$1,559,624	\$1,559,624	\$1,560,000	30%	0%	\$1,092,000	15	\$164,000	85	\$928,200	\$928,000
285	Mountain Brow East Path		Oakrest	2019-2031	Multi-Use Trail	0.80	\$1,559,624	\$1,559,624	\$1,560,000	30%	0%	\$1,092,000	15	\$164,000	85	\$928,200	\$928,000
286	Upper James/ Christie		Rymal	2019-2031	Multi-Use Trail	0.80	\$1,559,624	\$1,559,624	\$1,560,000	30%	0%	\$1,092,000	15	\$164,000	85	\$928,200	\$928,000
287	Proposed Pipeline Trail		Museum of Steam and Technology	2019-2031	Multi-Use Trail	2.20	\$4,678,875	\$4,678,875	\$4,679,000	30%	0%	\$3,275,000	15	\$491,000	85	\$2,784,000	\$2,784,000
288	Excising Pipeline Trail		Startheone	2019-2031	Multi-Use Trail	2.20	\$4,678,875	\$4,678,875	\$4,679,000	30%	0%	\$3,275,000	15	\$491,000	85	\$2,784,000	\$2,784,000
289	Hydro Corridor		Lawrence	2019-2031	Multi-Use Trail	1.90	\$1,251,439	\$1,251,439	\$1,251,000	30%	0%	\$876,000	15	\$131,000	85	\$744,600	\$745,000
290	Hydro Corridor		Lawrence Avenue	2019-2031	Multi-Use Trail	1.15	\$430,457	\$430,457	\$430,000	30%	0%	\$301,000	15	\$45,000	85	\$255,850	\$256,000
291	Strachan Street Trail		James	2019-2031	Multi-Use Trail	0.66	\$336,879	\$336,879	\$337,000	30%	0%	\$236,000	15	\$35,000	85	\$200,600	\$201,000
292	Kant Escarpment Loop		Pritchard	2019-2031	Multi-Use Trail	0.70	\$390,000	\$390,000	\$390,000	30%	0%	\$273,000	15	\$41,000	85	\$232,050	\$232,000
293	Chechoke Rail Trail		Highway 403	2019-2031	Multi-Use Trail	4.68	\$1,487,200	\$1,487,200	\$1,487,000	30%	0%	\$1,041,000	15	\$156,000	85	\$885,050	\$885,000
294	Hamilton-Brantford Rail Trail		Brifieldwood Dr	2019-2031	Multi-Use Trail	4.00	\$405,600	\$405,600	\$406,000	30%	0%	\$284,000	15	\$43,000	85	\$241,400	\$241,000
295	Battlefield Park - Bruce Trail Link		Greenhill to Bruce Trail to Glover	2019-2031	Multi-Use Trail	0.75	\$533,354	\$533,354	\$533,000	30%	0%	\$373,000	15	\$56,000	85	\$317,050	\$317,000
296	Devil's Punchbowl Link		Mountain Ave/ Lake Ave	2019-2031	Multi-Use Trail	0.42	\$150,000	\$150,000	\$150,000	100%	0%	\$105,000	15	\$16,000	85	\$89,000	\$89,000
297	Gage Park		Cumberland	2019-2031	Multi-Use Trail	0.59	\$311,264	\$311,264	\$311,000	30%	0%	\$217,885	15	\$33,000	85	\$184,885	\$185,000
298	Iroquois Heights to Old Mohawk		Chechoke Rail Trail	2019-2031	Multi-Use Trail	0.85	\$318,163	\$318,163	\$318,000	30%	0%	\$223,000	15	\$33,000	85	\$190,000	\$190,000
299	Museum of Steam and Tech Link		Woodward	2019-2031	Multi-Use Trail	0.75	\$607,392	\$607,392	\$607,000	30%	0%	\$425,000	15	\$64,000	85	\$361,250	\$361,000
300	Ottawa Street South - Bruce Trail Link		South of Rymal	2019-2031	Multi-Use Trail	0.39	\$686,235	\$686,235	\$686,000	30%	0%	\$480,000	15	\$72,000	85	\$408,000	\$408,000
301	Limeridge Mail Hydro Corridor Trail		Mohawk Road	2019-2031	Multi-Use Trail	3.80	\$1,404,390	\$1,404,390	\$1,404,000	30%	0%	\$983,000	15	\$147,000	85	\$836,000	\$836,000
302	Falvey		Sydenham	2019-2031	Multi-Use Trail	1.40	\$349,698	\$349,698	\$350,000	30%	0%	\$244,789	15	\$37,000	85	\$207,789	



Item #	Project Name	From	To	Estimated Timing	Improvement Type	Length	Gross Capital Cost Estimate 2019\$	Gross Capital Cost Including E.A. 2019\$	Gross Capital Cost 2019\$	Post Period Benefit	Developer Responsibility	Net Capital Estimate After Deduction 2019\$	Benefit to Existing (%)	Benefit to Existing (\$)	Benefit to Growth (%)	Benefit to Growth (\$)	Benefit to Growth (\$)
315	Centre	Warren/ Carlisle Road	Progreton	2019-2031	Paved Shoulder	0.78	\$151,089	\$151,089	\$151,000	30%	0%	\$106,000	15	\$16,000	85	\$90,100	\$90,000
316	Centre	Grinstone Creek	Concession 5 E	2019-2031	Paved Shoulder	0.45	\$87,729	\$87,729	\$88,000	30%	0%	\$61,000	15	\$9,000	85	\$51,850	\$52,000
317	Edgewood	Safari	Highway 6	2019-2031	Bike Lane	0.90	\$10,528	\$10,528	\$11,000	30%	0%	\$7,000	15	\$1,000	85	\$5,950	\$6,000
318	Binbrook Road	Trinity Church	Fletcher	2019-2031	Paved Shoulder	1.26	\$245,641	\$245,641	\$246,000	30%	0%	\$172,000	15	\$26,000	85	\$146,200	\$146,000
319	Ridge Road	Devil Punch Bowl	Dewitt	2019-2031	Multi-Use Trail	2.91	\$779,812	\$779,812	\$780,000	30%	0%	\$546,000	15	\$82,000	85	\$464,100	\$464,000
320	York Road	Olympic	Valley Road	2019-2031	Paved Shoulder	1.70	\$437,475	\$437,475	\$437,000	30%	0%	\$306,000	15	\$46,000	85	\$260,100	\$260,000
321	York Road & York Road at Old Guelph	Valley Road	Highway 6 interchange	2019-2031	Multi-Use Trail	2.50	\$1,433,464	\$1,433,464	\$1,433,000	30%	0%	\$1,003,000	15	\$150,000	85	\$852,550	\$853,000
322	Northlawn Avenue Link			2019-2031	Multi-Use Trail	1.10	\$400,000	\$400,000	\$400,000	30%	0%	\$280,000	15	\$42,000	85	\$238,000	\$238,000
323	Mosaic Drive	Parkside Drive	Highway 6	2019-2031	Multi-Use Trail	1.90	\$886,000	\$886,000	\$886,000	30%	0%	\$620,000	15	\$93,000	85	\$527,000	\$527,000
324	Valley Road	Rock Chapel	York Road	2019-2031	Paved Shoulder	1.40	\$311,925	\$311,925	\$312,000	30%	0%	\$218,000	15	\$33,000	85	\$185,300	\$185,000
325	Regional Road 56 south of Kirk	Southbrook	Binbrook Cons Area	2019-2031	Multi-Use Trail	3.00	\$779,812	\$779,812	\$780,000	30%	0%	\$546,000	15	\$82,000	85	\$464,100	\$464,000
326	Regional Road 56	Swayze Road	Cemetery	2019-2031	Multi-Use Trail	4.60	\$3,119,249	\$3,119,249	\$3,119,000	30%	0%	\$2,183,000	15	\$327,000	85	\$1,855,550	\$1,856,000
327	Old Guelph Road	Paterson	York Bike Lane	2019-2031	Paved Shoulder	3.53	\$907,116	\$907,116	\$907,000	30%	0%	\$635,000	15	\$95,000	85	\$539,750	\$540,000
328	Hamilton Drive Link			2032-2041	Multi-Use Trail		\$1,980,190	\$1,980,190	\$1,980,000	100%	0%	\$0	15	\$0	85	\$0	\$0
Totals							\$1,318,476,566	\$1,355,641,191	\$1,355,640,000			\$1,048,544,000		\$219,893,000		\$828,657,200	\$828,651,000



1.3 Facilities

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Services Related to a Highway - Facilities

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share 62%	Non-Residential Share 38%
	2019-2031												
1	Dundas Expansion	2019-2031	1,650,000	-		1,650,000	-		1,650,000		1,650,000	1,023,000	627,000
2	Lower Stoney Creek Expansion	2019-2031	1,960,000	-		1,960,000	-		1,960,000		1,960,000	1,215,200	744,800
3	North District Expansion	2019-2031	1,020,000	-		1,020,000	-		1,020,000		1,020,000	632,400	387,600
4	South Mountain Expansion	2019-2031	2,860,000	-		2,860,000	-		2,860,000		2,860,000	1,773,200	1,086,800
5	Upper Stoney Creek/Binbrook Expansion	2019-2031	1,640,000	-		1,640,000	-		1,640,000		1,640,000	1,016,800	623,200
6	Waterdown/Carlisle Expansion	2019-2031	1,780,000	-		1,780,000	-		1,780,000		1,780,000	1,103,600	676,400
7	Provision for Expansion of Parks Works Yards - Binbrook*	2019-2031	573,500	-		573,500	-		573,500	57,350	516,150	320,013	196,137
8	Streetlighting Facility Expansion (Storage)	2019-2023	1,200,000	-		1,200,000	318,200		881,800		881,800	546,716	335,084
9	Additional Snow Dump (Land)	2025-2028	5,750,000	-		5,750,000	-		5,750,000		5,750,000	3,565,000	2,185,000
10	Water & Wastewater Office/Storage Expansion	2019-2024	17,250,000	-		17,250,000	10,225,500		7,024,500		7,024,500	4,355,190	2,669,310
11	Confederation Park - Sports Park Development - Phase 2 (Maintenance Yard & Field House)*	2020	4,182,000	-		4,182,000	418,200		3,763,800	376,380	3,387,420	2,100,200	1,287,220
12	Public Works Depot - Bayfront Park (Design & Construction)*	2019	3,900,000	-		3,900,000	1,950,000		1,950,000	195,000	1,755,000	1,088,100	666,900
13	Reserve Fund Adjustment					-	3,439,540		(3,439,540)		(3,439,540)	(2,132,515)	(1,307,025)
	Total		43,765,500	-	-	43,765,500	16,351,440	-	27,414,060	628,730	26,785,330	16,606,905	10,178,426

*Related to Parks Department therefore a 10% mandatory deduction has been attributed



1.4 Vehicles and Equipment

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Services Related to a Highway - Vehicles and Equipment

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less: Other (e.g. 10% Statutory Deduction)	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development			Total	Residential Share 62%	Non-Residential Share 38%
	Operations:												
1	Aluminum Sander Prewelded (1)	2019-2031	225,000	-		225,000	-		225,000		225,000	139,500	85,500
2	1 1/2 Ton Pickup (9)	2019-2031	233,000	-		233,000	-		233,000		233,000	144,460	88,540
3	Large Front End Loader (2)	2019-2031	404,667	-		404,667	-		404,667		404,667	250,893	153,773
4	Grader (1)	2019-2031	281,000	-		281,000	-		281,000		281,000	174,220	106,780
5	Large Mobile Sweeper (4)	2019-2031	1,304,000	-		1,304,000	-		1,304,000		1,304,000	808,480	495,520
6	Snow Blower Attachment (1)	2019-2031	202,000	-		202,000	-		202,000		202,000	125,240	76,760
7	Street Flusher (1)	2019-2031	225,000	-		225,000	-		225,000		225,000	139,500	85,500
8	Hotspot Transporter (2)	2019-2031	63,000	-		63,000	-		63,000		63,000	39,060	23,940
9	Tandem Trailer - 12 Ton(1)	2019-2031	22,500	-		22,500	-		22,500		22,500	13,950	8,550
10	Large Hopper/Spreader Attachment (1)	2019-2031	18,000	-		18,000	-		18,000		18,000	11,160	6,840
11	Aluminum Dump/Crew/Plow (1)	2019-2031	84,500	-		84,500	-		84,500		84,500	52,390	32,110
12	Aluminum Dump/Crew/Plow (1)	2019-2031	78,500	-		78,500	-		78,500		78,500	48,670	29,830
13	Arrow Boards (3)	2019-2031	30,900	-		30,900	-		30,900		30,900	19,158	11,742
14	Steel Dump/Crew/Plow (1)	2019-2031	59,600	-		59,600	-		59,600		59,600	36,952	22,648
15	Steel Dump/Crew (1)	2019-2031	56,200	-		56,200	-		56,200		56,200	34,844	21,356
16	Sander Radius Dump with 2 Way Front (1)	2019-2031	259,000	-		259,000	-		259,000		259,000	160,580	98,420
17	Sander Pre-Wel 2 Way with Wing (2)	2019-2031	562,000	-		562,000	-		562,000		562,000	348,440	213,560
18	Trackless (1)	2019-2031	235,000	-		235,000	-		235,000		235,000	145,700	89,300
19	Gradal (1)	2019-2031	362,000	-		362,000	-		362,000		362,000	224,440	137,560
20	Alum Sander Prew Front & Wing Plow (4)	2019-2031	876,800	-		876,800	-		876,800		876,800	543,616	333,184
21	Sander Tandem Prew Plow (1)	2019-2031	253,000	-		253,000	-		253,000		253,000	156,860	96,140
	Parks:												
22	1 1/2 Ton Pick-up Truck (3)	2019-2023	77,600	-		77,600	-		77,600	7,760	69,840	43,301	26,539
23	Small Tractor (2)	2019-2023	78,700	-		78,700	-		78,700	7,870	70,830	43,915	26,915
24	Medium Tractor (1)	2019-2023	50,600	-		50,600	-		50,600	5,060	45,540	28,235	17,305
25	Large Tractor (3)	2019-2023	186,000	-		186,000	-		186,000	18,600	167,400	103,788	63,612
26	Service Body - Utility (2)	2019-2023	101,000	-		101,000	-		101,000	10,100	90,900	56,358	34,542
27	1 Ton Pick-up with Plow (1)	2019-2023	56,200	-		56,200	-		56,200	5,620	50,580	31,360	19,220
28	Tow behind rotary mower (1)	2019-2023	2,900	-		2,900	-		2,900	290	2,610	1,618	992
29	Utility Turf Vehicle (3)	2019-2023	57,300	-		57,300	-		57,300	5,730	51,570	31,973	19,597
30	Mower Front Mount Riding (10)	2019-2023	211,500	-		211,500	-		211,500	21,150	190,350	118,017	72,333
31	Tandem Axle Trailer (5)	2019-2023	42,700	-		42,700	-		42,700	4,270	38,430	23,827	14,603
32	Overseeder (1)	2019-2023	21,400	-		21,400	-		21,400	2,140	19,260	11,941	7,319
33	Top Dresser (1)	2019-2023	18,000	-		18,000	-		18,000	1,800	16,200	10,044	6,156
34	Small Aerifier (1)	2019-2023	10,400	-		10,400	-		10,400	1,040	9,360	5,803	3,557
35	Aerifier (1)	2019-2023	16,900	-		16,900	-		16,900	1,690	15,210	9,430	5,780
36	Drop in Sander (3)	2019-2023	30,400	-		30,400	-		30,400	3,040	27,360	16,963	10,397
37	Aluminum Dump/Crew (1)	2019-2023	73,100	-		73,100	-		73,100	7,310	65,790	40,790	25,000
38	Aluminum Dump/Crew & Plow (1)	2019-2023	78,500	-		78,500	-		78,500	7,850	70,650	43,803	26,847



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Services Related to a Highway - Vehicles and Equipment

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share	
														62%
2019-2031														
39	Packer Truck (1)	2019-2023	187,000	-		187,000	-		187,000	18,700		168,300	104,346	63,954
40	Riding Mower (1)	2019-2023	73,100	-		73,100	-		73,100	7,310		65,790	40,790	25,000
41	Rotary Riding Mower (1)	2019-2023	337,000	-		337,000	-		337,000	33,700		303,300	188,046	115,254
42	Steel Dump Crew - 1 Ton	2019-2023	56,200	-		56,200	-		56,200	5,620		50,580	31,360	19,220
43	Aerifier (2)	2019-2028	20,400	-		20,400	-		20,400	2,040		18,360	11,383	6,977
44	Ball Diamond Groomer (1)	2019-2028	10,200	-		10,200	-		10,200	1,020		9,180	5,692	3,488
45	Blower (1)	2019-2028	10,200	-		10,200	-		10,200	1,020		9,180	5,692	3,488
46	Miscellaneous (1)	2019-2028	10,200	-		10,200	-		10,200	1,020		9,180	5,692	3,488
47	Mower (1)	2019-2028	20,400	-		20,400	-		20,400	2,040		18,360	11,383	6,977
48	Over Seeder (1)	2019-2028	20,400	-		20,400	-		20,400	2,040		18,360	11,383	6,977
49	Top Dresser (1)	2019-2028	20,400	-		20,400	-		20,400	2,040		18,360	11,383	6,977
50	Beach Rake (1)	2019-2028	93,600	-		93,600	-		93,600	9,360		84,240	52,229	32,011
51	Golf Cart (4)	2019-2028	10,200	-		10,200	-		10,200	1,020		9,180	5,692	3,488
52	Leaf Blower (1)	2019-2028	520	-		520	-		520	52		468	290	178
53	Pressure Washer (1)	2019-2028	10,400	-		10,400	-		10,400	1,040		9,360	5,803	3,557
54	Wood Chipper (1)	2019-2028	33,700	-		33,700	-		33,700	3,370		30,330	18,805	11,525
55	Mower Outfront (3)	2019-2028	25,500	-		25,500	-		25,500	2,550		22,950	14,229	8,721
56	Mower Riding (3)	2019-2028	140,000	-		140,000	-		140,000	14,000		126,000	78,120	47,880
57	Mower Walk Behind (1)	2019-2028	7,300	-		7,300	-		7,300	730		6,570	4,073	2,497
58	Pickup 1 ton Crew Cab (3)	2019-2028	134,000	-		134,000	-		134,000	13,400		120,600	74,772	45,828
59	Pickup 1 ton Snow Plow (1)	2019-2028	52,000	-		52,000	-		52,000	5,200		46,800	29,016	17,784
60	Refuse Rear Load Mini Packer (1)	2019-2028	169,300	-		169,300	-		169,300	16,930		152,370	94,469	57,901
61	Refuse Side Loader (1)	2019-2028	169,300	-		169,300	-		169,300	16,930		152,370	94,469	57,901
62	Service Body Truck (3/4 ton) (3)	2019-2028	66,300	-		66,300	-		66,300	6,630		59,670	36,995	22,675
63	Sidewalk Sweeper (1)	2019-2028	59,200	-		59,200	-		59,200	5,920		53,280	33,034	20,246
64	Tractor Loader/Backhoe Small (97-182 HP 6.5 cu yards) (1)	2019-2028	114,200	-		114,200	-		114,200	11,420		102,780	63,724	39,056
65	Trailer Float (1)	2019-2028	20,400	-		20,400	-		20,400	2,040		18,360	11,383	6,977
66	Utility Vehicle (5)	2019-2028	20,400	-		20,400	-		20,400	2,040		18,360	11,383	6,977
67	Utility Vehicle - Toolcat (2)	2019-2028	102,000	-		102,000	-		102,000	10,200		91,800	56,916	34,884
	Forestry (Roads & Parks):													
68	Pickup 3/4 Ton	2019-2031	42,700	-		42,700	21,350		21,350	2,135		19,215	11,913	7,302
69	Wood Chipper (2)	2019-2031	188,000	-		188,000	-		188,000	18,800		169,200	104,904	64,296
70	Aerial Truck (1)	2019-2031	291,000	-		291,000	-		291,000	29,100		261,900	162,378	99,522
71	Dump Truck Tandem Axle Chipper Body (1)	2019-2023	202,000	-		202,000	-		202,000	20,200		181,800	112,716	69,084
	Horticulture:													
72	Tandem Axle Trailer (1)	2019-2031	12,500	-		12,500	-		12,500	1,250		11,250	6,975	4,275
73	Aluminum Dump/Crew (2)	2019-2023	145,600	-		145,600	-		145,600	14,560		131,040	81,245	49,795
	Traffic													
74	Signal Bucket Trucks (2)	2019-2023	573,000	-		573,000	-		573,000			573,000	355,260	217,740



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Services Related to a Highway - Vehicles and Equipment

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share 62%	Non-Residential Share 38%
	2019-2031												
75	Signal Tech Van	2019-2024	80,700	-		80,700	-		80,700		80,700	50,034	30,666
76	Foreman's Pickup Truck	2019-2026	54,600	-		54,600	-		54,600		54,600	33,852	20,748
77	Investigator Pickup Truck	2019-2027	57,300	-		57,300	-		57,300		57,300	35,526	21,774
78	Aerial Truck (2)	2019-2031	630,000	-		630,000	-		630,000		630,000	390,600	239,400
79	Line Painter - Walk Behind (2)	2019-2031	10,200	-		10,200	-		10,200		10,200	6,324	3,876
80	Sign Trucks (2)	2019-2031	1,275,000	-		1,275,000	-		1,275,000		1,275,000	790,500	484,500
	Recreation												
81	Ice Resurfacer (2)	2024-2028	191,000	-		191,000	-		191,000	19,100	171,900	106,578	65,322
82	Compact Car (3)	2024-2028	84,300	-		84,300	-		84,300	8,430	75,870	47,039	28,831
	Building & By-law Enforcement												
83	Hybrid Vehicles (6)	2019-2023	239,000	-		239,000	-		239,000	23,900	215,100	133,362	81,738
84	Compact Pick-up (1)	2019-2023	25,850	-		25,850	-		25,850	2,585	23,265	14,424	8,841
	Parks & Roads:												
85	Refuse Rear Load (11)	2019-2028	246,800	-		246,800	-		246,800	12,340	234,460	145,365	89,095
	Roads:												
86	SUV 2 Wheel Drive (15)	2019-2031	468,000	-		468,000	-		468,000		468,000	290,160	177,840
87	SUV 4 Wheel Drive (5)	2019-2031	208,000	-		208,000	-		208,000		208,000	128,960	79,040
88	Pickup 1/2 ton (5)	2019-2031	146,000	-		146,000	-		146,000		146,000	90,520	55,480
89	SUV 4 Wheel Drive (11)	2019-2031	458,000	-		458,000	-		458,000		458,000	283,960	174,040
90	SUV 2 Wheel Drive (3)	2019-2031	94,000	-		94,000	-		94,000		94,000	58,280	35,720
91	Pickup 1/2 ton (1)	2019-2031	29,100	-		29,100	-		29,100		29,100	18,042	11,058
	Total		14,695,337	-	-	14,695,337	21,350	-	14,673,987	463,102	14,210,885	8,810,748	5,400,136



2. Fire Protection Services



2.1 All Fire Services

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Fire Services

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 62%	Non-Residential Share 38%
	Fire Facilities										
1	New Station Waterdown Growth Area	2019-2021	7,500,000	-		7,500,000	-		7,500,000	4,650,000	2,850,000
2	Growth Related Debt Interest (Discounted) - New Station Waterdown Growth Area	2022-2037	838,420	-		838,420	-		838,420	519,820	318,600
3	New Station Elfrida/Upper Stoney Creek Growth Area	2025-2027	8,432,000	5,565,100		2,866,900	-		2,866,900	1,777,478	1,089,422
4	Provision for Station Expansion/Renovation - Upper Stoney Creek	2027-2028	2,473,000	346,100		2,126,900	1,237,000		889,900	551,738	338,162
5	Mechanical/Stores Relocation/Expansion	2021-2024	12,142,000	-		12,142,000	4,396,900		7,745,100	4,801,962	2,943,138
6	Outstanding Debt - Principal	2019-2023	859,624	-		859,624	-		859,624	532,967	326,657
7	Outstanding Debt - Interest (Discounted)	2019-2023	71,725	-		71,725	-		71,725	44,470	27,256
8	Outstanding Debt- Shared Training Facility - Principal	2019-2027	3,620,557	-		3,620,557	-		3,620,557	2,244,745	1,375,812
9	Outstanding Debt- Shared Training Facility - Interest (Discounted)	2019-2027	68,410	-		68,410	-		68,410	42,414	25,996
	Fire Vehicles			-			-				
10	Rural Pumper for Elfrida Growth Area (New Station)	2026-2027	755,000	-		755,000	-		755,000	468,100	286,900
11	Engine for Elfrida Growth Area (New Station)	2026-2027	814,000	537,200		276,800	-		276,800	171,616	105,184
12	Rural Tanker for Waterdown Growth Area - New Station	2021-2022	705,000	-		705,000	-		705,000	437,100	267,900



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Fire Services

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 62%	Non-Residential Share 38%
13	Urban Pumper for Waterdown Growth Area - New Station	2021-2022	814,000	-		814,000	-		814,000	504,680	309,320
14	Outstanding Debt on Stn 20 Vehicle - Principal	2019-2023	81,295	-		81,295	-		81,295	50,403	30,892
15	Outstanding Debt on Stn 20 Vehicle - Interest (Discounted)	2019-2023	6,783	-		6,783	-		6,783	4,206	2,578
	Fire Equipment			-			-				
	Station #31 Waterdown			-			-				
16	Air compressor	2020-2021	3,000	-		3,000	-		3,000	1,860	1,140
17	Washer Extractor	2020-2021	17,000	-		17,000	-		17,000	10,540	6,460
18	Portable Radios, Chargers & Batteries	2020-2021	25,000	-		25,000	-		25,000	15,500	9,500
19	S.C.B.A.'s	2020-2021	31,000	-		31,000	-		31,000	19,220	11,780
20	Portable Pumps	2020-2021	18,000	-		18,000	-		18,000	11,160	6,840
21	Multi Gas Detectors	2020-2021	6,000	-		6,000	-		6,000	3,720	2,280
22	Defibrillators	2020-2021	6,000	-		6,000	-		6,000	3,720	2,280
23	Thermal Imaging Camera	2020-2021	13,000	-		13,000	-		13,000	8,060	4,940
24	Auto Extrication Equipment	2020-2021	57,000	-		57,000	-		57,000	35,340	21,660
25	Air Bags	2020-2021	11,000	-		11,000	-		11,000	6,820	4,180
26	Fire Hose	2020-2021	43,000	-		43,000	-		43,000	26,660	16,340
27	Bunker Gear	2020-2021	41,000	-		41,000	-		41,000	25,420	15,580
28	Station Exhaust System	2020-2021	56,000	-		56,000	-		56,000	34,720	21,280
29	Protective Gear & Uniform Clothing	2020-2021	48,000	-		48,000	-		48,000	29,760	18,240
	New Station Elfrida Growth Area		-	-			-				
30	Air Compressor	2026-2027	3,000	2,000		1,000	-		1,000	620	380
31	Washer Extractor	2026-2027	17,000	11,200		5,800	-		5,800	3,596	2,204
32	Portable Radios, Chargers & Batteries	2026-2027	25,000	16,500		8,500	-		8,500	5,270	3,230
33	S.C.B.A.'s	2026-2027	31,000	20,500		10,500	-		10,500	6,510	3,990
34	Portable Pumps	2026-2027	18,000	11,900		6,100	-		6,100	3,782	2,318



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Fire Services

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 62%	Non-Residential Share 38%
35	Multi Gas Detectors	2026-2027	6,000	4,000		2,000	-		2,000	1,240	760
36	Defibrillators	2026-2027	6,000	4,000		2,000	-		2,000	1,240	760
37	Thermal Imaging Camera	2026-2027	13,000	8,600		4,400	-		4,400	2,728	1,672
38	Auto Extrication Equipment	2026-2027	57,000	37,600		19,400	-		19,400	12,028	7,372
39	Air Bags	2026-2027	11,000	7,300		3,700	-		3,700	2,294	1,406
40	Fire Hose	2026-2027	43,000	28,400		14,600	-		14,600	9,052	5,548
41	Bunker Gear	2026-2027	41,000	27,100		13,900	-		13,900	8,618	5,282
42	Station Exhaust System	2026-2027	56,000	37,000		19,000	-		19,000	11,780	7,220
43	Protective Gear & Uniform Clothing	2026-2027	48,000	31,700		16,300	-		16,300	10,106	6,194
	Glanbrook Growth Area Station Expansion/Renovation										
44	Additional Firefighting Equipment at Glanbrook Growth Area	2021-2022	89,000	-		89,000	22,300		66,700	41,354	25,346
	Winona Growth Area										
45	Additional Firefighting Equipment at Winona Growth Area	2021-2022	89,000	-		89,000	22,300		66,700	41,354	25,346
	Upper Stoney Creek Growth Area										
46	Additional Firefighting Equipment at Upper Stoney Creek Station	2026-2027	89,000	18,700		70,300	22,300		48,000	29,760	18,240
47	Reserve Fund Adjustment			-		-	4,043,435		(4,043,435)	(2,506,930)	(1,536,505)
	Total		40,198,816	6,714,900	-	33,483,916	9,744,235	-	23,739,681	14,718,602	9,021,079



3. Police Services



3.1 All Police Services

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Police Services

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 62%	Non-Residential Share 38%
	Facilities										
1	Marine Facility Expansion & Replacement	2019	5,148,000	-		5,148,000	2,059,200		3,088,800	1,915,056	1,173,744
2	Additional Police Facility Requirements - Station 40	2025	25,500,000	23,103,000		2,397,000	-		2,397,000	1,486,140	910,860
3	Investigative Services Division (ISD) Forensics Headquarters	2019	25,824,000	-		25,824,000	13,471,600		12,352,400	7,658,488	4,693,912
4	Growth Related Component of ISD Forensics Headquarters Debt Interest (Discounted)	2019-2033	469,698	-		469,698	-		469,698	291,213	178,485
5	Backup Data Centre/Disaster Recovery Facility Space Expansion	2020	281,000	254,600		26,400	-		26,400	16,368	10,032
6	Debt Principal on Divisional 30 Headquarters	2019	302,808	-		302,808	-		302,808	187,741	115,067
7	Debt Interest (Discounted) on Divisional 30 Headquarters	2019	7,570	-		7,570	-		7,570	4,694	2,877
8	Debt Principal (Discounted) - Shared Training Facility	2019-2027	2,062,182	-		2,062,182	-		2,062,182	1,278,553	783,629
9	Debt Interest (Discounted) - Shared Training Facility	2019-2027	888,379	-		888,379	-		888,379	550,795	337,584
10	Communication/9-1-1 Centre Expansion	2020	500,000	-		500,000	250,000		250,000	155,000	95,000
11	Communications Centre Facility Expansion	2019	401,900	-		401,900	201,000		200,900	124,558	76,342
	Vehicles & Equipment										
12	Station 40 Equipment	2025	213,000	193,000		20,000	-		20,000	12,400	7,600
13	Command Van	2020	750,000	-		750,000	275,600		474,400	294,128	180,272
14	Marine Vessel (Hike)	2019	800,000	-		800,000	-		800,000	496,000	304,000
15	Ice Rescue	2020	82,000	-		82,000	-		82,000	50,840	31,160
16	Additional Cruisers (46)	2019-2031	1,490,400	-		1,490,400	-		1,490,400	924,048	566,352
17	Equipment for Officers (200)	2019-2031	680,000	68,000		612,000	-		612,000	379,440	232,560



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Police Services

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 62%	Non-Residential Share 38%
18	Equipment for Senior Officers (2)	2019-2031	7,200	700		6,500	-		6,500	4,030	2,470
19	Equipment for Special Constables (21)	2019-2031	46,200	4,600		41,600	-		41,600	25,792	15,808
20	Equipment for Cadets (2)	2019-2031	5,400	500		4,900	-		4,900	3,038	1,862
21	Equipment for Auxiliary Officers (12)	2019-2031	30,600	3,100		27,500	-		27,500	17,050	10,450
22	Portable Radios (200)	2019-2031	1,177,100	117,700		1,059,400	-		1,059,400	656,828	402,572
23	Vehicle Equipment (46)	2019-2031	142,600	14,300		128,300	-		128,300	79,546	48,754
24	In-Car Mobile Radios / Electronics (46)	2019-2031	427,800	42,800		385,000	-		385,000	238,700	146,300
25	Reserve Fund Adjustment						1,146,812		(1,146,812)	(711,023)	(435,789)
	Total		67,237,836	23,802,300	-	43,435,536	17,404,212	-	26,031,324	16,139,421	9,891,903



4. Parking Services



5. Airport



City of Hamilton
Service: Airport Space

Watson & Associates Economists Ltd.
Development Charges Stakeholders Sub-CommitteeH:\Hamilton\2019 DC\DC Stakeholder Committee\Jan 28th\Accessible Capital Package.docx



6. Outdoor Recreation



6.1 All Parkland Development

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Parkland Development

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2019-2028											95%	5%
1	John St. N. & Rebecca St. Park - Master Plan Implementation	2019-2022	3,860,000	-		3,860,000	3,319,600		540,400	54,040	486,360	462,042	24,318
2	Nash Orchard Park	2021-2022	832,000	-		832,000	-		832,000	83,200	748,800	711,360	37,440
3	Highland Road Park	2020	776,000	-		776,000	-		776,000	77,600	698,400	663,480	34,920
4	Highbury Meadows North Park	2020	703,000	-		703,000	-		703,000	70,300	632,700	601,065	31,635
5	Cherry Beach Lakefront Park	2021	969,000	-		969,000	-		969,000	96,900	872,100	828,495	43,605
6	The Crossings Park	2022	838,000	-		838,000	-		838,000	83,800	754,200	716,490	37,710
7	Brooks at Rymal Park	2020	883,000	-		883,000	-		883,000	88,300	794,700	754,965	39,735
8	Lancaster Heights Park	2020	675,000	-		675,000	-		675,000	67,500	607,500	577,125	30,375
9	Fletcher Road Parkette	2022	191,000	-		191,000	-		191,000	19,100	171,900	163,305	8,595
10	Ancaster Meadows Park	2019	641,000	-		641,000	-		641,000	64,100	576,900	548,055	28,845
11	Parkside Hills Park	2022	607,000	-		607,000	-		607,000	60,700	546,300	518,985	27,315
12	Clear Skies proposed park	2023-2024	978,000	-		978,000	-		978,000	97,800	880,200	836,190	44,010
13	Gatesbury Park Upgrades - New fitness area, skateboard feature and basketball	2019-2021	498,000	-		498,000	498,000		-	-	-	-	-
14	Meadowlands Community Park Spraypad	2019-2020	475,000	-		475,000	237,500		237,500	23,750	213,750	203,063	10,688
15	Broughton West Park Upgrade for New Spray Pad	2021-2022	475,000	-		475,000	237,500		237,500	23,750	213,750	203,063	10,688
16	Alexander Park - Upgrade for new skate park	2019	532,000	-		532,000	266,000		266,000	26,600	239,400	227,430	11,970
17	Mcquesten Park - Additional Fitness Equipment	2020	270,000	-		270,000	135,000		135,000	13,500	121,500	115,425	6,075
18	Waterfalls Viewing - Albion Falls New Access on South Side	2019	1,320,000	-		1,320,000	660,000		660,000	66,000	594,000	564,300	29,700
19	Chedoke Falls - New Access to Upper and Lower Falls	2019-2022	4,528,000	-		4,528,000	2,264,000		2,264,000	226,400	2,037,600	1,935,720	101,880
20	Skateboard Study Implementation at Various Locations Throughout the City	2019-2028	11,190,000	6,714,000		4,476,000	-		4,476,000	447,600	4,028,400	3,826,980	201,420
21	Johnson Tew New Arboretum	2019-2021	150,000	-		150,000	75,000		75,000	7,500	67,500	64,125	3,375
22	Billy Sherring - Class C Field Replace & Upgrade to Class A Artificial	2027	1,200,000	1,115,700		84,300	84,300		-	-	-	-	-



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Parkland Development

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share 95%	Non-Residential Share 5%
	2019-2028												
23	Waterford Park	2019-2022	1,122,000	-		1,122,000	561,000		561,000	56,100	504,900	479,655	25,245
24	Summit Park Phase 10 Binbrook	2019	500,000	-		500,000	-		500,000	50,000	450,000	427,500	22,500
25	William Connell Expansion Lands	2022	1,224,000	-		1,224,000	-		1,224,000	122,400	1,101,600	1,046,520	55,080
26	Roxborough Park	2019	765,000	-		765,000	765,000		-	-	-	-	-
27	Provision for Elfrida Park Developments (8 neighbourhood parks & 1 community park)	2023-2028	7,710,200	1,542,000		6,168,200	-		6,168,200	616,820	5,551,380	5,273,811	277,569
28	Waterdown South Skinner Park (Asset ID 1013)	2019	624,000	-		624,000	-		624,000	62,400	561,600	533,520	28,080
29	Waterdown South Parkette 2 Water Tower (Asset ID 30)	2023	174,000	-		174,000	-		174,000	17,400	156,600	148,770	7,830
30	Waterdown South Parkette 1 (Asset ID 54) Skinner Road and Burke Avenue	2021	157,000	-		157,000	-		157,000	15,700	141,300	134,235	7,065
31	Waterdown South Smoky Hollow Park (Asset ID 72)	2021	676,000	-		676,000	-		676,000	67,600	608,400	577,980	30,420
32	Waterdown South Parkette 3 (Asset ID 71)	2023	82,000	-		82,000	-		82,000	8,200	73,800	70,110	3,690
33	Bookjans West Park	2019	570,000	-		570,000	-		570,000	57,000	513,000	487,350	25,650
34	Heritage Green Community Sports Park - Future Phases	2021-2023	2,405,000	-		2,405,000	-		2,405,000	240,500	2,164,500	2,056,275	108,225
35	Brian Timmis Field Development - Stadium Precinct Park	2020-2021	8,657,000	-		8,657,000	4,946,900		3,710,100	371,010	3,339,090	3,172,136	166,955
36	Fruitland/Winona Parkland Development	2023	1,237,000	-		1,237,000	-		1,237,000	123,700	1,113,300	1,057,635	55,665
37	Red Hill Phase 3 & 4 Park	2019	650,000	-		650,000	-		650,000	65,000	585,000	555,750	29,250
38	Spencer Creek Estates	2020	340,000	-		340,000	-		340,000	34,000	306,000	290,700	15,300
39	Lewis Road Park (Winona)	2019-2021	700,000	-		700,000	-		700,000	70,000	630,000	598,500	31,500
40	Confederation Park - Little Squirt Works & Area Redevelopment	2019-2020	1,530,000	-		1,530,000	765,000		765,000	76,500	688,500	654,075	34,425
41	Confederation Park - Sports Park Development - Phase 2 (Natural play area, tree planting)	2020	4,243,000	2,291,200		1,951,800	424,300		1,527,500	152,750	1,374,750	1,306,013	68,738
42	Confederation Park - Central Village - Pkg. Lot & Roadways, Phase 1	2029-2036	3,366,000	3,366,000		-	-		-	-	-	-	-
43	Confederation Park - Sports Park Development - Phase 3 (Picnic areas and shelter, parking lot lighting, tree planting, site furniture)	2020	803,000	433,600		369,400	80,300		289,100	28,910	260,190	247,181	13,010
44	Confederation Park - Central Village - Public Realm & Square	2029-2036	2,805,000	2,805,000		-	-		-	-	-	-	-



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Parkland Development

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less: Other (e.g. 10% Statutory Deduction)	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development			Total	Residential Share	Non-Residential Share
2019-2028													
45	Confederation Park - West Entrance and Naturalizing the Go Karts Site	2021-2026	612,000	-		612,000	-		612,000	61,200	550,800	523,260	27,540
46	Confederation Park - Internal Trail Between Central Village and Beaches Grill	2029-2036	204,000	204,000		-	-		-	-	-	-	-
47	Confederation Park - Boardwalk to Beach	2021-2026	459,000	275,400		183,600	-		183,600	18,360	165,240	156,978	8,262
48	Confederation Park - General Trail Upgrades	2021-2026	204,000	61,200		142,800	102,000		40,800	4,080	36,720	34,884	1,836
49	Confederation Park - Group Picnic Area	2029-2036	561,000	280,500		280,500	280,500		-	-	-	-	-
50	Confederation Park - Central Parking Lot & Volleyball Centre Area	2029-2036	357,000	357,000		-	-		-	-	-	-	-
51	Confederation Park Soccer Field Area	2021-2026	51,000	36,700		14,300	5,100		9,200	920	8,280	7,866	414
52	Confederation Park - Wild Waterworks Property Upgrades	2021-2026	408,000	122,400		285,600	204,000		81,600	8,160	73,440	69,768	3,672
53	Confederation Park - Woodland Restoration - Phase 1	2021-2026	408,000	122,400		285,600	204,000		81,600	8,160	73,440	69,768	3,672
54	Confederation Park - Woodland Restoration - Phase 2	2029-2036	408,000	204,000		204,000	204,000		-	-	-	-	-
55	Confederation Park - Van Wagners Marsh Upgrades Phase 1	2021-2026	408,000	122,400		285,600	204,000		81,600	8,160	73,440	69,768	3,672
56	Confederation Park - Van Wagners Marsh Upgrades Phase 2	2029-2036	408,000	204,000		204,000	204,000		-	-	-	-	-
57	Confederation Park - Signage - Phase 2	2021-2026	255,000	-		255,000	-		255,000	25,500	229,500	218,025	11,475
58	Confederation Park - Park Corridor Upgrades along Van Wagners Beach Road	2021-2026	612,000	-		612,000	-		612,000	61,200	550,800	523,260	27,540
59	Confederation Park - Lighting along Strip	2021-2026	561,000	-		561,000	-		561,000	56,100	504,900	479,655	25,245
60	Confederation Park - Pumping station, sanitary forcemain, and electrical servicing for Lakeland area	2021-2026	918,000	-		918,000	-		918,000	91,800	826,200	784,890	41,310
61	Confederation Park - Public Art & Site Work - Centennial Pkwy Entrance	2029-2036	612,000	612,000		-	-		-	-	-	-	-
62	Confederation Park - Centennial Intersection & Entrance	2029-2036	4,998,000	4,998,000		-	-		-	-	-	-	-
63	Confederation Park - Primary infrastructure for servicing the central village and ice skating facility	2029-2036	2,193,000	2,193,000		-	-		-	-	-	-	-
64	Confederation Park - Services for Adventure Village Expansion	2029-2036	153,000	153,000		-	-		-	-	-	-	-



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Parkland Development

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
2019-2028													
65	West Harbour Parkland Development - Gas Dock and Marina Services	2019	1,200,000	-		1,200,000	600,000		600,000	60,000	540,000	513,000	27,000
66	West Harbour Pier 5-7 Marina Shoreline Rehab (HWT) (Additional funds)	2019	810,000	-		810,000	202,500		607,500	60,750	546,750	519,413	27,338
67	West Harbour Pier 5-7 Boardwalk (HWT)	2019-2021	7,325,000	-		7,325,000	1,831,300		5,493,700	549,370	4,944,330	4,697,114	247,217
68	West Harbour Pier 6 Artisan Village (HWT)	2021-2021	4,170,000	-		4,170,000	2,085,000		2,085,000	208,500	1,876,500	1,782,675	93,825
69	West Harbour Pier 7 Commercial Village (HWT)	2019	3,050,000	-		3,050,000	1,525,000		1,525,000	152,500	1,372,500	1,303,875	68,625
70	West Harbour Pier 8 Shorewall Rehab	2019-2028	16,575,000	5,920,600		10,654,400	9,945,000		709,400	70,940	638,460	606,537	31,923
71	West Harbour Macassa Bay - Shoreline Improvements	2019-2028	5,305,000	3,553,000		1,752,000	1,326,300		425,700	42,570	383,130	363,974	19,157
72	West Harbour Macassa Bay Boardwalk and Trail	2019-2028	7,000,000	4,688,300		2,311,700	1,750,000		561,700	56,170	505,530	480,254	25,277
73	West Harbour Pier 8 Greenway	2021-2028	1,235,000	661,700		573,300	494,000		79,300	7,930	71,370	67,802	3,569
74	West HarbourBayfront Park Upgrades Phase 3 (Entrance Fountain)	2021-2028	780,000	174,100		605,900	585,000		20,900	2,090	18,810	17,870	941
75	West Harbour - Bayview Park Remediation and Redevelopment	2021-2028	2,275,000	1,015,800		1,259,200	1,137,500		121,700	12,170	109,530	104,054	5,477
	Trails			-			-						
76	Ancaster Creek Trail	2023	920,500	-		920,500	-		920,500	92,050	828,450	787,028	41,423
77	Churchill Park Trail	2020-2022	381,000	-		381,000	-		381,000	38,100	342,900	325,755	17,145
78	Chedoke Rail Trail Extension	2029-2030	240,300	240,300		-	-		-	-	-	-	-
79	Chedoke Rail Trail, Claremont Link	2029-2030	245,200	245,200		-	-		-	-	-	-	-
80	Glenburn Court - Battlefield Creek Trail	2024	235,100	-		235,100	-		235,100	23,510	211,590	201,011	10,580
81	Sam Manson Park Trail	2020	104,200	-		104,200	-		104,200	10,420	93,780	89,091	4,689
82	Park Trail Connections - Upper James St. to Limeridge Mall Hydro Corridor Trail	2027-2031	969,600	436,300		533,300	484,800		48,500	4,850	43,650	41,468	2,183
83	First Road West Link	2021-2022	376,200	-		376,200	-		376,200	37,620	338,580	321,651	16,929
84	Heritage Green Sports Park Link	2022	200,000	-		200,000	-		200,000	20,000	180,000	171,000	9,000
85	Summerlea West Park - Fletcher Road Parkette Link	2027	687,000	618,300		68,700	-		68,700	6,870	61,830	58,739	3,092
86	Filman Road Link - North Segment	2022	275,900	-		275,900	-		275,900	27,590	248,310	235,895	12,416
87	Filman Road Link - South Segment	2022	539,700	-		539,700	-		539,700	53,970	485,730	461,444	24,287



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Parkland Development

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share 95%	Non-Residential Share 5%
	2019-2028												
88	Meadowlands Trail System Links	2020-2024	1,700,000	-		1,700,000	-		1,700,000	170,000	1,530,000	1,453,500	76,500
89	Tollgate Drive Link	2030	259,400	259,400		-	-		-	-	-	-	-
90	Spencer Creek, Main Street and Thorpe Street Link	2029-2031	3,731,000	3,731,000		-	-		-	-	-	-	-
91	Spencer Creek, Mercer Street and Governor's Road Lin	2029-2031	710,300	710,300		-	-		-	-	-	-	-
92	Cascade Trail Link	2029-2031	313,500	313,500		-	-		-	-	-	-	-
93	Dundas Valley Link	2029-2031	1,138,000	1,138,000		-	-		-	-	-	-	-
94	Borer's Creek Trail Link	2027	786,200	629,000		157,200	-		157,200	15,720	141,480	134,406	7,074
95	Waterdown Pipeline Trail Link	2019-2020	422,000	-		422,000	211,000		211,000	21,100	189,900	180,405	9,495
96	Parkside Drive - Robson Link	2019	181,500	-		181,500	-		181,500	18,150	163,350	155,183	8,168
97	Highway 5 - Mountain Brow Road Link	2019	600,000	-		600,000	-		600,000	60,000	540,000	513,000	27,000
98	East Mountain Trail Loop	2019-2020	854,000	-		854,000	811,300		42,700	4,270	38,430	36,509	1,922
99	Joe Sam's New Trail Connection Through the Park	2019-2020	100,000	-		100,000	-		100,000	10,000	90,000	85,500	4,500
100	Confederation Park - Growth Related Debt Interest (Discounted)	2019-2034	1,573,689	722,300		851,389	-		851,389		851,389	808,820	42,569
101	Reserve Fund Adjustment		4,812,660	-		4,812,660	-		4,812,660		4,812,660	4,572,027	240,633
									-		-	-	-
	Total		159,803,149	53,270,600	-	106,532,549	39,715,700	-	66,816,849	6,115,280	60,701,569	57,666,491	3,035,078



7. Indoor Recreation



7.1 Indoor Recreation Facilities

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Indoor Recreation Facilities

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2019-2028											95%	5%
1	Valley Park Community Centre Expansion	2019-2021	1,800,000	-		1,800,000	180,000		1,620,000	162,000	1,458,000	1,385,100	72,900
2	Norman Pinky Lewis Recreation Centre Expansion	2023-2025	6,600,000	-		6,600,000	3,300,000		3,300,000	330,000	2,970,000	2,821,500	148,500
3	Winona Community Centre	2022-2024	26,500,000	-		26,500,000	-		26,500,000	2,650,000	23,850,000	22,657,500	1,192,500
4	Elfrida Community Centre	2027-2036	27,500,000	22,000,000		5,500,000	-		5,500,000	550,000	4,950,000	4,702,500	247,500
5	Binbrook Community Centre	2028	27,500,000	14,575,000		12,925,000	-		12,925,000	1,292,500	11,632,500	11,050,875	581,625
6	Sackville Expansion	2026	6,700,000	-		6,700,000	-		6,700,000	670,000	6,030,000	5,728,500	301,500
7	Waterdown Community Centre	2025-2027	27,000,000	-		27,000,000	-		27,000,000	2,700,000	24,300,000	23,085,000	1,215,000
8	Riverdale Community Hub & Domenic Agostino Riverdale Community Centre Expansion	2020-2022	11,000,000	-		11,000,000	-		11,000,000	1,100,000	9,900,000	9,405,000	495,000
9	Riverdale Community Hub & Domenic Agostino Riverdale Community Centre Expansion - Growth Related Debt Interest (Discounted)	2023-2038	1,436,413	-		1,436,413	-		1,436,413		1,436,413	1,364,592	71,821
10	William Connell Park Washroom and changeroom Facilities (under construction)	2019	3,700,000	-		3,700,000	-		3,700,000	370,000	3,330,000	3,163,500	166,500
11	Sir Wilfrid Laurier Gymnasium	2020-2021	8,650,000	-		8,650,000	-		8,650,000	865,000	7,785,000	7,395,750	389,250
12	Sir Wilfrid Laurier Gymnasium - Growth Related Debt Interest (Discounted)	2022-2037	1,488,247	-		1,488,247	-		1,488,247		1,488,247	1,413,835	74,412
13	Mt. Hope new Rec Centre	2025-2028	4,850,000	-		4,850,000	-		4,850,000	485,000	4,365,000	4,146,750	218,250
14	Ancaster Tennis Bubble	2019-2020	1,000,000	-		1,000,000	-		1,000,000	100,000	900,000	855,000	45,000
15	Parkdale Outdoor Pool Washroom & Changeroom	2019-2021	3,000,000	-		3,000,000	2,640,000		360,000	36,000	324,000	307,800	16,200
16	Dundas Valley Washroom	2019	565,000	-		565,000	-		565,000	56,500	508,500	483,075	25,425
17	Durand Park Washroom Building	2019	325,000	-		325,000	-		325,000	32,500	292,500	277,875	14,625



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Indoor Recreation Facilities

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less: Other (e.g. 10% Statutory Deduction)	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%
	2019-2028												
18	Stadium Precinct Park Fieldhouses & Washrooms	2020	5,200,000	-		5,200,000	-		5,200,000	520,000	4,680,000	4,446,000	234,000
19	Confederation Park - Sports Park Buildings Phase 1: Gatehouse	2019	700,000	-		700,000	-		700,000	70,000	630,000	598,500	31,500
20	Confederation Park - Sports Park Buildings Phase 2: Fieldhouse and Staff Works Yard	2020-2024	5,500,000	-		5,500,000	-		5,500,000	550,000	4,950,000	4,702,500	247,500
21	Confederation Park - Ice skating rink/loop, field house & zamboni	2027-2036	3,570,000	-		3,570,000	-		3,570,000	357,000	3,213,000	3,052,350	160,650
22	West Harbour Washroom/Concession	2021-2022	1,000,000	-		1,000,000	500,000		500,000	50,000	450,000	427,500	22,500
23	Reserve Fund Adjustment						5,942,749		(5,942,749)		(5,942,749)	(5,645,612)	(297,137)
	Total		175,584,660	36,575,000	-	139,009,660	12,562,749	-	126,446,911	12,946,500	113,500,411	107,825,390	5,675,021



8. Library Services



8.1 Library Facilities & Vehicles

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Library Facilities & Vehicles

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2019-2028											95%	5%
1	South Mountain Complex - Turner Park - Debt Principal (Discounted)	2019-2023	1,129,104	-		1,129,104	-		1,129,104		1,129,104	1,072,648	56,455
2	South Mountain Complex - Turner Park - Debt Interest (Discounted)	2019-2023	94,210	-		94,210	-		94,210		94,210	89,500	4,711
3	Binbrook Expansion Growth Related Debt Principal	2020-2035	2,016,500	-		2,016,500	998,000		1,018,500		1,018,500	967,575	50,925
4	Binbrook Expansion Growth Related Debt Interest (Discounted)	2020-2035	243,530	-		243,530	-		243,530		243,530	231,353	12,176
5	Valley Park - Expansion & Renovation - Construction*	2020	6,452,000	-		6,452,000	262,000	1,250,000	4,940,000	494,000	4,446,000	4,223,700	222,300
6	Valley Park - Furnishings for Expansion	2020	1,347,000	-		1,347,000	-		1,347,000	134,700	1,212,300	1,151,685	60,615
7	Valley Park - Expansion - Growth Related Debt Interest (Discounted)	2020-2035	1,215,970	-		1,215,970	-		1,215,970		1,215,970	1,155,171	60,798
8	Winona/Stoney Creek - New - Furnishings for New Facility	2024-2025	1,000,000	-		1,000,000	-		1,000,000	100,000	900,000	855,000	45,000
9	Winona/Stoney Creek - New - Construction (Estimated 9,000 sq. ft.)	2024-2025	5,000,000	-		5,000,000	-		5,000,000	500,000	4,500,000	4,275,000	225,000
10	Mount Hope - Replacement & Expansion - Construction (Estimated 5,000 sq. ft.)	2022-2023	3,500,000	-		3,500,000	1,841,400		1,658,600	165,860	1,492,740	1,418,103	74,637
11	Mount Hope - New - Furnishings for Expansion	2022-2023	500,000	-		500,000	-		500,000	50,000	450,000	427,500	22,500
12	Ancaster - Expansion - Construction (estimated 20,000 sq. ft.)	2024	8,500,000	-		8,500,000	5,590,000		2,910,000	291,000	2,619,000	2,488,050	130,950



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Library Facilities & Vehicles

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share 95%	Non-Residential Share 5%
	2019-2028												
13	Ancaster Furnishings for Expansion	2024	1,500,000	-		1,500,000	-		1,500,000	150,000	1,350,000	1,282,500	67,500
14	Bookmobile - Electronic	2020	550,000	-		550,000	-		550,000	55,000	495,000	470,250	24,750
15	Greensville - New Library	2019	2,434,000	-		2,434,000	1,789,700		644,300	64,430	579,870	550,877	28,994
16	Greensville - Furnishings	2019	441,000	-		441,000	-		441,000	44,100	396,900	377,055	19,845
17	Carlisle - Replacement/Renovation	2020	2,500,000	-		2,500,000	2,500,000		-	-	-	-	-
18	Lower City New/Expanded Library (Estimated 8,000 sq. ft.)	2025	5,241,000	4,533,500		707,500	-		707,500	70,750	636,750	604,913	31,838
19	Elfrida - New Branch (Estimated 12,000 sq. ft.)	2030	7,000,000	7,000,000		-	-		-	-	-	-	-
20	Central Library - Phase IV - Local History & Archives - Renovations	2022	1,500,000	-		1,500,000	1,500,000		-	-	-	-	-
21	New Permanent Location For Red Hill (Estimated 15,000 sq. ft.)	2025	8,000,000	1,494,700		6,505,300	6,272,000		233,300	23,330	209,970	199,472	10,499
22	Saltfleet Move to Stoney Creek (Estimated 15,000 sq. ft.)	2025	8,000,000	1,581,000		6,419,000	6,172,300		246,700	24,670	222,030	210,929	11,102
23	New North End Branch (Estimated 8,000 sq. ft.)	2025	5,500,000	4,757,500		742,500	-		742,500	74,250	668,250	634,838	33,413
24	Reserve Fund Adjustment		140,657	-		140,657	-		140,657		140,657	133,624	7,033
	Total		73,804,970	19,366,700	-	54,438,270	26,925,400	1,250,000	26,262,870	2,242,090	24,020,780	22,819,741	1,201,039



9. Paramedics



9.1 Paramedics Facilities

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Paramedics Facilities

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share 90%	Non-Residential Share 10%
	2019-2028												
1	Additional Facility Space	2019-2028	4,400,000	3,040,000		1,360,000	-		1,360,000	136,000	1,224,000	1,101,600	122,400
3	Outstanding Debt on Shared Training Facility - Principal	2019-2027	557,809	-		557,809	-		557,809		557,809	502,028	55,781
4	Outstanding Debt on Shared Training Facility - Interest (discounted)	2019-2027	10,540	-		10,540	-		10,540		10,540	9,486	1,054
5	Reserve Fund Adjustment		401,196	-		401,196	-		401,196		401,196	361,076	40,120
	Total		5,369,545	3,040,000	-	2,329,545	-	-	2,329,545	136,000	2,193,545	1,974,190	219,354



9.2 Paramedics Vehicles & Equipment

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Paramedics Vehicles & Equipment

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2019-2028											90%	10%
1	Additional Ambulances (5)	2019-2023	1,340,000	-		1,340,000	-		1,340,000	134,000	1,206,000	1,085,400	120,600
2	Additional Ambulances (5)	2024-2028	1,340,000	1,279,700		60,300	-		60,300	6,030	54,270	48,843	5,427
3	Additional Defibrillators (6)	2019-2023	180,600	-		180,600	-		180,600	18,060	162,540	146,286	16,254
4	Additional Defibrillators (7)	2024-2028	210,700	201,200		9,500	-		9,500	950	8,550	7,695	855
5	Additional Stretchers (6)	2019-2023	134,400	-		134,400	-		134,400	13,440	120,960	108,864	12,096
6	Additional Stretchers (7)	2024-2028	156,800	149,700		7,100	-		7,100	710	6,390	5,751	639
7	Additional Gear (5)	2019-2023	60,000	-		60,000	-		60,000	6,000	54,000	48,600	5,400
8	Additional Gear (5)	2024-2028	60,000	57,300		2,700	-		2,700	270	2,430	2,187	243
	Total		3,482,500	1,687,900	-	1,794,600	-	-	1,794,600	179,460	1,615,140	1,453,626	161,514



10. Long Term Care



10.1 Long Term Care Facilities

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Space: Long Term Care Facilities

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share 90%	Non-Residential Share 10%
	2019-2028												
1	Macassa-D Wing Expansion (52,500 sq ft)	2021-2026	23,700,000	-		23,700,000	12,280,000	5,280,000	6,140,000	614,000	5,526,000	4,973,400	552,600
2	Macassa-A Wing / S Wing Renovation/Replacement (69,136 sq ft)	2025-2030	22,143,000	-		22,143,000	22,143,000		-	-	-	-	-
3	Reserve Fund Adjustment		-	-		-	2,062,227		(2,062,227)		(2,062,227)	(1,856,004)	(206,223)
	Total		45,843,000	-	-	45,843,000	36,485,227	5,280,000	4,077,773	614,000	3,463,773	3,117,396	346,377



11. Social Housing



11.1 Social Housing

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Social Housing

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2019-2028											100%	0%
1	Provision for Additional Social Housing	2019-2023	193,750,000	13,562,500		180,187,500	160,270,000		19,917,500	1,991,750	17,925,750	17,925,750	-
2	Provision for Additional Social Housing	2024-2028	227,660,000	39,157,500		188,502,500	188,320,400		182,100	18,210	163,890	163,890	-
3	Bay-Cannon (Replace 45 units and expand by 10 units)	2019-2023	16,600,000	-		16,600,000	16,078,400		521,600	52,160	469,440	469,440	-
4	55 Queenston Phase 1 (41 Units Replacement of Units from other locations)	2019-2023	10,529,000	-		10,529,000	10,529,000		-	-	-	-	-
5	Wellington-King William (Replace 14 units and expand by 6 units)	2019-2023	5,743,000	-		5,743,000	5,445,300		297,700	29,770	267,930	267,930	-
6	Macassa (Replace 45 units and expand by 20 units)	2019-2023	15,554,000	-		15,554,000	14,727,100		826,900	82,690	744,210	744,210	-
7	MacNab (Rehab 146 units)	2019-2023	16,282,000	-		16,282,000	10,382,000	5,900,000	-	-	-	-	-
8	55 Queenston Phase 2 (52 Additional Units)	2019-2023	13,350,000	-		13,350,000	11,043,100		2,306,900	230,690	2,076,210	2,076,210	-
9	Riverdale Community Hub (44 units)	2019-2023	11,040,000	-		11,040,000	9,132,300		1,907,700	190,770	1,716,930	1,716,930	-
	Reserve Fund Adjustment						7,225,830		(7,225,830)	(722,583)	(6,503,247)	(6,503,247)	-
	Total		510,508,000	52,720,000	-	457,788,000	433,153,430	5,900,000	18,734,570	1,873,457	16,861,113	16,861,113	-



12. Provincial Offences Act



City of Hamilton

Service: Provincial Offences Act Facilities

Watson & Associates Economists Ltd.



13. Health Services



City of Hamilton
Service: Health Services

Watson & Associates Economists Ltd.
Development Charges Stakeholders Sub-CommitteeH:\Hamilton\2019 DC\DC Stakeholder Committee\Jan 28th\Accessible Capital Package.docx



14. Social & Child Services



14.1 Social & Child Services Facilities

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Social and Child Services Facilities

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2019-2028											90%	10%
1	Riverdale Community Hub (Child Care Portion)	2019-2022	2,000,000	-		2,000,000	-	2,000,000	-	-	-	-	-
2	Reserve Fund Adjustment		362,227	-		362,227	-		362,227		362,227	326,004	36,223
	Total		2,362,227	-	-	2,362,227	-	2,000,000	362,227	-	362,227	326,004	36,223



15. Waste Diversion



15.1 All Waste Diversion Services

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Waste Diversion Services

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Other Deductions*	Gross Capital Cost (2019\$) Waste Diversion Related	Post Period Benefit	Net Capital Cost	Less:		Subtotal	Other (e.g. 10% Statutory Deduction)	Potential D.C. Recoverable Cost		
								Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development			Total	Residential Share	Non-Residential Share
	2019-2028												83%	17%
1	CCF Air Handling Upgrades (to provide for capital improvements to the CCF to mitigate the impacts of the Ontario Compost Quality Standards)	2019	1,734,000	-	1,734,000	89,000	1,645,000	1,556,400		88,600	8,860	79,740	66,184	13,556
2	Diversion Container Replacement and Expansion Program	2019-2023	4,908,750	-	4,908,750	-	4,908,750	4,405,900		502,850	50,285	452,565	375,629	76,936
3	Diversion Container Replacement and Expansion Program	2024-2028	4,908,750	-	4,908,750	-	4,908,750	4,405,900		502,850	50,285	452,565	375,629	76,936
4	Public Space & Special Event Containers Replacement & Expansion	2019-2023	1,275,000	1,020,000	255,000	-	255,000	127,500		127,500	12,750	114,750	95,243	19,508
5	Public Space & Special Event Containers Replacement & Expansion	2024-2028	1,275,000	1,020,000	255,000	-	255,000	127,500		127,500	12,750	114,750	95,243	19,508
6	Glanbrook Landfill Capital Improvement Program	2019-2023	1,863,550	1,677,195	186,355	-	186,355	18,600		167,755	16,776	150,980	125,313	25,667
7	Glanbrook Landfill Capital Improvement Program	2024-2028	1,863,550	1,677,195	186,355	-	186,355	18,600		167,755	16,776	150,980	125,313	25,667
8	Maintenance & Capital Improvements to the Resource Recovery Centre (RRC) Program	2019-2023	1,537,150	-	1,537,150	-	1,537,150	999,100		538,050	53,805	484,245	401,923	82,322
9	Maintenance & Capital Improvements to the Resource Recovery Centre (RRC) Program	2024-2028	1,537,150	-	1,537,150	-	1,537,150	999,100		538,050	53,805	484,245	401,923	82,322
8	Leaf & Yard Waste Composting Facility Relocation	2019-2020	3,978,000	-	3,978,000	-	3,978,000	1,989,000		1,989,000	198,900	1,790,100	1,485,783	304,317
9	Transfer Station/Community Recycling Centre Expansion & Capital Replacement	2019-2023	10,375,000	6,225,000	4,150,000	-	4,150,000	-		4,150,000	415,000	3,735,000	3,100,050	634,950
10	Transfer Station/Community Recycling Centre Expansion & Capital Replacement	2024-2028	10,375,000	6,225,000	4,150,000	3,320,000	830,000	-		830,000	83,000	747,000	620,010	126,990
11	Material Recycling Facility Lifecycle Replacement & Upgrades	2020-2022	24,150,000	-	24,150,000	2,963,000	21,187,000	12,075,000		9,112,000	911,200	8,200,800	6,806,664	1,394,136
12	Provision for additional trucks (2.1 per 4,000 additional low and medium density units)	2019-2023	1,606,500	-	1,606,500	-	1,606,500	-		1,606,500	160,650	1,445,850	1,200,056	245,795
13	Provision for additional trucks (2.1 per 4,000 additional low and medium density units)	2024-2028	1,606,500	-	1,606,500	-	1,606,500	-		1,606,500	160,650	1,445,850	1,200,056	245,795
	Total		72,993,900	17,844,390	55,149,510	6,372,000	48,777,510	26,722,600	-	22,054,910	2,205,491	19,849,419	16,475,018	3,374,401

*Other deductions are portions attributable to landfill



16. Transit



16.1 All Transit Services

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Transit Services

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	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
	2019-2028									63%	37%
1	New Conventional Bus - (40 ft.) (117)	2019-2028	94,957,200	2,943,700		92,013,500	66,185,200		25,828,300	16,271,829	9,556,471
2	New Conventional Bus - (40 ft.) (Spares) (32)	2019-2028	25,971,200	805,100		25,166,100	18,101,900		7,064,200	4,450,446	2,613,754
3	Replacement of Retired 40 ft. buses on L.R.T. corridor (18)	2019-2028	14,608,800	452,900		14,155,900	10,182,300		3,973,600	2,503,368	1,470,232
4	New Conventional Bus - (40 ft.) (12)	2029-2031	9,739,200	2,951,000		6,788,200	6,788,200		-	-	-
5	New Conventional Bus - (40 ft.) (Spares) (8)	2029-2031	6,492,800	1,967,300		4,525,500	4,525,500		-	-	-
6	Replace 40 ft. buses with 60 ft. buses (11)	2019	11,055,000	65,900	8,927,600	2,061,500	1,482,800		578,700	364,581	214,119
7	Replace 40 ft. buses with 60 ft. buses (10)	2023	10,050,000	60,000	8,116,000	1,874,000	1,348,000		526,000	331,380	194,620
8	Replace 40 ft. buses with 30 ft. buses (6)	2019	3,833,400	-	3,833,400	-	-		-	-	-
9	Replace 26 ft. buses with 30 ft. buses (5)	2019	3,236,000	57,100	1,393,000	1,785,900	1,284,600		501,300	315,819	185,481
10	New Specialized Transit (Chevy 34' Braun) (3)	2019-2028	663,900	-		663,900	393,700		270,200	170,226	99,974
11	New Specialized Transit (Chevy 34' Braun) (1)	2029-2031	221,300	90,100		131,200	131,200		-	-	-
12	New Specialized Transit (Dodge Promaster) (16)	2019-2028	1,740,800	-		1,740,800	1,032,300		708,500	446,355	262,145
13	New Specialized Transit (Dodge Promaster) (5)	2029-2031	544,000	221,400		322,600	322,600		-	-	-



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Transit Services

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	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
	2019-2028									63%	37%
14	New Specialized Transit (Dodge Caravan) (38)	2019-2028	1,447,800	-		1,447,800	858,500		589,300	371,259	218,041
15	New Specialized Transit (Dodge Caravan) (10)	2029-2031	381,000	155,100		225,900	225,900		-	-	-
16	Support Vehicles - Facility Vehicles - Service Truck	2019-2028	114,400	-		114,400	86,200		28,200	17,766	10,434
17	Support Vehicles - Facility Vehicles - Stock Room Vehicle	2019-2028	34,300	-		34,300	25,800		8,500	5,355	3,145
18	Support Vehicles - Facility Vehicles - Garage Equipment Repair Walk Behind Forklift	2019-2028	166,400	38,400		128,000	125,300		2,700	1,701	999
19	Support Vehicles - Facility Vehicles - Garage Fork Lift	2019-2028	104,000	24,000		80,000	78,300		1,700	1,071	629
20	Support Vehicles - Facility Vehicles - Garage Tow Mobile	2019-2028	52,000	12,000		40,000	39,200		800	504	296
21	Support Vehicles - Facility Vehicles - Garage Equipment Repair Express Van Vehicles	2019-2028	72,800	-		72,800	54,800		18,000	11,340	6,660
22	Support Vehicles - Operations Vehicles	2019-2028	192,500	-		192,500	-		192,500	121,275	71,225
23	Transit & Maintenance Storage Facility	2020-2022	272,000,000	9,305,000		262,695,000	122,920,000	108,800,000	30,975,000	19,514,250	11,460,750
24	Transit & Maintenance Storage Facility - Land	2020-2022	10,500,000	599,000		9,901,000	7,908,000		1,993,000	1,255,590	737,410
25	Transit & Maintenance Storage Facility Growth Related Debt Interest (Discounted)	2023-2038	7,198,306	1,662,866		5,535,440	-		5,535,440	3,487,327	2,048,113
26	Reserve Fund Adjustment			-			2,006,481		(2,006,481)	(1,264,083)	(742,398)
	Total		475,377,106	21,410,866	22,270,000	431,696,240	246,106,781	108,800,000	76,789,459	48,377,359	28,412,100



17. Administration Studies



17.1 Administration Studies

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service Administration Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share 63%	Non-Residential Share 37%
	2019-2028												
1	Official Plan (Urban and Rural) Review	2019-2021	2,000,000	-		2,000,000	1,000,000		1,000,000	100,000	900,000	567,000	333,000
2	Comprehensive Zoning By-Law 05-200 Update	2019-2021	57,000	-		57,000	28,500		28,500	2,850	25,650	16,160	9,491
3	GRIDS/MCR Update	2019-2020	2,195,000	-		2,195,000	-		2,195,000	219,500	1,975,500	1,244,565	730,935
4	Residential Intensification Strategy	2019	157,000	-		157,000	-		157,000	15,700	141,300	89,019	52,281
5	Site Plan Guidelines Update/Consolidation	2019-2022	200,000	-		200,000	-		200,000	20,000	180,000	113,400	66,600
6	Digital Planning Application Software/Hardware	2019-2022	150,000	-		150,000	-		150,000	15,000	135,000	85,050	49,950
7	Natural Areas Inventory Study	2019-2028	300,000	-		300,000	30,000		270,000	27,000	243,000	153,090	89,910
8	Woodland Protection Strategy	2019	325,000	-		325,000	32,500		292,500	29,250	263,250	165,848	97,403
9	3D Model Development for Development Review Process	2019	120,000	-		120,000	-		120,000	12,000	108,000	68,040	39,960
10	Planning and Zoning Growth Area	2019-2022	1,215,000	-		1,215,000	-		1,215,000	121,500	1,093,500	688,905	404,595
	Secondary Plans and Strategies - Nodes and Corridors:			-			-						
11	Sub-Regional Nodes			-			-						
12	- Eastgate/Centennial Node	2019-2020	320,400	-		320,400	192,200		128,200	12,820	115,380	72,689	42,691
13	- Limeridge Node	2019-2020	320,400	-		320,400	192,200		128,200	12,820	115,380	72,689	42,691
14	Corridors:			-			-						
15	- Main/King Corridor (B-Line)	2019-2022	304,700	-		304,700	182,800		121,900	12,190	109,710	69,117	40,593
16	- James/Upper James Corridor (A-Line)	2019-2022	320,400	-		320,400	192,200		128,200	12,820	115,380	72,689	42,691
17	Community Nodes:			-			-						
18	- Waterdown Node	2019-2021	282,200	-		282,200	211,700		70,500	7,050	63,450	39,974	23,477
19	- Centre Mall Node	2021-2022	282,200	-		282,200	197,500		84,700	8,470	76,230	48,025	28,205
20	- Dundas Node	2019-2020	282,200	-		282,200	169,300		112,900	11,290	101,610	64,014	37,596
21	- Stoney Creek Node	2020-2021	304,700	-		304,700	182,800		121,900	12,190	109,710	69,117	40,593
22	Community Planning Studies - Durand Neighbourhood	2019-2021	150,000	-		150,000	37,500		112,500	11,250	101,250	63,788	37,463
22	East of Downtown Secondary Plan	2024-2025	320,400	-		320,400	-		320,400	32,040	288,360	181,667	106,693
23	Elfrida Urban Boundary Expansion & Secondary Plan	2019-2021	1,577,500	-		1,577,500	-		1,577,500	157,750	1,419,750	894,443	525,308
24	City-wide Employment Survey	2019-2028	900,000	-		900,000	-		900,000	90,000	810,000	510,300	299,700
25	Community Energy Plan	2019-2021	100,000	-		100,000	50,000		50,000	5,000	45,000	28,350	16,650
26	Development Charge Study	2019	730,800	-		730,800	-		730,800	73,080	657,720	414,364	243,356
27	Development Charge Study (to 2041)	2021	730,800	-		730,800	-		730,800	73,080	657,720	414,364	243,356
28	Development Charge Study	2026	730,800	-		730,800	-		730,800	73,080	657,720	414,364	243,356



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service Administration Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less: Other (e.g. 10% Statutory Deduction)	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development			Total	Residential Share 63%	Non-Residential Share 37%
	2019-2028												
	Water & Wastewater Studies:			-			-						
29	Integrated Water and Wastewater Master Plan	2019-2028	1,500,000	-		1,500,000	-		1,500,000		1,500,000	945,000	555,000
30	Water and Sanitary Sewer Models	2019-2028	130,000	-		130,000	65,000		65,000		65,000	40,950	24,050
31	Centennial Secondary Plan - Servicing Study	2019	200,000	-		200,000	-		200,000		200,000	126,000	74,000
	Community Services:			-			-						
32	Long Term Care Services Needs Study	2027	242,800	-		242,800	121,400		121,400	12,140	109,260	68,834	40,426
33	Child Care Service Plan	2020-2025	84,300	-		84,300	42,200		42,100	4,210	37,890	23,871	14,019
34	Human Services Study	2020-2025	224,900	-		224,900	112,500		112,400	11,240	101,160	63,731	37,429
35	Human Services Plan - Housing Affordability Study	2020-2025	45,000	-		45,000	11,300		33,700	3,370	30,330	19,108	11,222
36	Affordable Housing - Residential Pre-zoning & Underutilized Site Mapping	2020-2025	89,900	-		89,900	22,500		67,400	6,740	60,660	38,216	22,444
37	City Housing Hamilton Energy Investment Study	2020-2025	393,500	-		393,500	295,100		98,400	9,840	88,560	55,793	32,767
38	Ontario Works Review	2020-2025	112,400	-		112,400	84,300		28,100	2,810	25,290	15,933	9,357
39	Human Services Market Planning Study	2020-2025	224,900	-		224,900	56,200		168,700	16,870	151,830	95,653	56,177
40	Neighbourhood Community Needs Study	2020-2025	67,500	-		67,500	33,800		33,700	3,370	30,330	19,108	11,222
	Transit Studies:						-						
41	Hamilton West Interregional Transit Terminal Location Study	2019-2022	84,300	-		84,300	75,900		8,400		8,400	5,292	3,108
42	Rapid Ready & 10 Year Strategy Review	2019-2028	150,000	-		150,000	75,000		75,000		75,000	47,250	27,750
43	James Mountain Road - Transit only Roadway Feasibility Study	2020-2023	112,400	-		112,400	56,200		56,200		56,200	35,406	20,794
	Future Transit Hubs and Stations:						-						
44	SCUBE Transit Terminal Study	2019	242,400	-		242,400	-		242,400		242,400	152,712	89,688
	Operations Facilities:						-						
45	Yards Need Study	2025-2028	168,600	-		168,600	-		168,600		168,600	106,218	62,382
	Police:						-						
46	Police - Space Needs Study (GRIDS II)	2019	56,200	-		56,200	-		56,200		56,200	35,406	20,794
47	Police Business Plan	2019	32,000	-		32,000	24,000		8,000		8,000	5,040	2,960
48	Police Business Plan	2022	32,000	-		32,000	24,000		8,000		8,000	5,040	2,960
49	Police Business Plan	2025	32,000	-		32,000	24,000		8,000		8,000	5,040	2,960
50	Police Business Plan	2028	32,000	-		32,000	24,000		8,000		8,000	5,040	2,960
	Paramedics:			-									
51	Paramedics - Space Needs Study	2023	112,400	-		112,400	28,100		84,300	8,430	75,870	47,798	28,072
52	Paramedics - Space Needs Study	2028	112,400	-		112,400	-		112,400	11,240	101,160	63,731	37,429
	Parking:			-									
53	Parking Master Plan	2019	200,000	-		200,000	50,000		150,000	15,000	135,000	85,050	49,950
	Library Studies:			-									
54	Library Master Plan	2022	25,000	-		25,000	6,300		18,700	1,870	16,830	10,603	6,227
55	Service Model Master Plan	2020	25,000	-		25,000	6,300		18,700	1,870	16,830	10,603	6,227
	Parks:			-									
56	Trails Masterplan Update	2021	204,000	-		204,000	51,000		153,000	15,300	137,700	86,751	50,949



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service Administration Studies

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2019-2028											63%	37%
57	Parks Master Plans	2019-2023	1,214,200	-		1,214,200	303,600		910,600	91,060	819,540	516,310	303,230
58	Recreation Studies	2019-2023	607,100	-		607,100	151,800		455,300	45,530	409,770	258,155	151,615
59	Recreation Studies	2024-2028	607,100	-		607,100	151,800		455,300	45,530	409,770	258,155	151,615
	Waste Diversion:												
60	Waste Management Research & Development Program	2019-2023	1,229,100	-	245,820	983,280	882,500		100,780	10,078	90,702	57,142	33,560
61	Waste Management Research & Development Program	2024-2028	1,229,100	-	245,820	983,280	882,500		100,780	10,078	90,702	57,142	33,560
62	Solid Waste Management Master Plan Approvals	2019-2021	561,000	-	140,250	420,750	63,100		357,650	35,765	321,885	202,788	119,097
	Other:			-									
63	Provision for Growth Component of Unidentified Studies	2019-2023	2,248,500	-		2,248,500	-		2,248,500	224,850	2,023,650	1,274,900	748,751
64	Outstanding Debt Principal	2019-2023	198,550	-		198,550	-		198,550		198,550	125,086	73,463
65	Outstanding Debt Interest (Discounted)	2019-2023	36,884	-		36,884	-		36,884		36,884	23,237	13,647
66	Reserve Fund Adjustment		1,336,059	-		1,336,059	-		1,336,059		1,336,059	841,717	494,342
	Total		28,579,992	-	631,890	27,948,102	6,423,600	-	21,524,502	1,754,921	19,769,581	12,454,836	7,314,745

*Other deductions are portions attributable to landfill



18. Wastewater Services



18.1 Wastewater Linear Services

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Wastewater - Sewers

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 63%	Non-Residential Share 37%
1	Ancaster Sanitary Sewage System	2019-2023	3,090,000	741,000		2,349,000	-	838,000	1,511,000	951,930	559,070
2	Waterdown Sanitary Sewage System	2019-2023	11,719,000	300,800		11,418,200	7,322,000	714,000	3,382,200	2,130,786	1,251,414
3	Binbrook Sanitary Sewage System	2019-2023	2,406,000	-		2,406,000	-	619,000	1,787,000	1,125,810	661,190
4	AEGD/Mount Hope Sanitary Sewage System	2019-2023	18,910,000	-		18,910,000	-		18,910,000	11,913,300	6,996,700
5	AEGD/Mount Hope Sanitary Sewage System	2024-2031	12,749,000	-		12,749,000	-	3,294,000	9,455,000	5,956,650	3,498,350
6	Hamilton Mountain Sanitary Sewage System	2019-2023	90,297,000	8,840,000		81,457,000	-	532,000	80,925,000	50,982,750	29,942,250
7	Hamilton Mountain Sanitary Sewage System	2024-2031	68,000	-		68,000	-		68,000	42,840	25,160
8	Stoney Creek Upper Sanitary Sewage System	2019-2023	2,389,000	-		2,389,000	-		2,389,000	1,505,070	883,930
9	Stoney Creek Upper Sanitary Sewage System	2024-2031	27,695,000	18,279,000		9,416,000	-	3,107,000	6,309,000	3,974,670	2,334,330
10	Stoney Creek Lower Sanitary Sewage System	2019-2023	27,298,000	2,009,400		25,288,600	184,000	362,000	24,742,600	15,587,838	9,154,762
11	City Wide Sanitary System	2019-2023	47,106,000	-		47,106,000	11,163,750	-	35,942,250	22,643,618	13,298,633
12	City Wide Sanitary System	2024-2031	22,656,000	-		22,656,000	7,500,000	-	15,156,000	9,548,280	5,607,720
13	Existing Debt Principal	2019-2023	369,593	-		369,593	-		369,593	232,844	136,749
14	Existing Debt Interest (Discounted)	2019-2023	30,838	-		30,838	-		30,838	19,428	11,410
15	Financing (Linear) (Interest Discounted)	2019-2034	36,844,849	-		36,844,849	-		36,844,849	23,212,255	13,632,594
16	Provisional Post Period Benefit Deduction	2019-2031		10,000,000		(10,000,000)	-		(10,000,000)	(6,300,000)	(3,700,000)
17	Reserve Fund Adjustment		40,435,413			40,435,413	-		40,435,413	25,474,310	14,961,103
	Total		344,063,693	40,170,200	-	303,893,493	26,169,750	9,466,000	268,257,743	169,002,378	99,255,365



18.2 Wastewater Facilities

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Wastewater Facilities

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 63%	Non-Residential Share 37%
	Water Quality:										
1	Wastewater Pumping Station	2019-2021	95,974,275	1,836,314		94,137,961	31,641,096	56,987,925	5,508,941	3,470,633	2,038,308
2a	Primary Clarifier - Primary Treatment (Phase 1 - CEPT) - Engineering Included	2019-2021	16,255,669	520,971		15,734,698	8,976,738	5,195,046	1,562,914	984,636	578,278
2b	Primary Clarifier - Primary Treatment (Phase 2 - Tanks) - Engineering Included	2019-2021	52,246,549	820,296		51,426,253	14,134,332	34,831,033	2,460,888	1,550,360	910,529
2c	Primary Clarifier - Other Costs (includes New/Expanded Laboratory/Admin Building)	2019-2021	11,857,782	1,568,785		10,288,997	5,582,644		4,706,354	2,965,003	1,741,351
4a	Tertiary Upgrades - New Secondary/Tertiary Treatment Plant (Phase 1)	2019-2021	134,908,478	1,375,990		133,532,488	52,072,583	77,331,936	4,127,969	2,600,621	1,527,349
5b	Chlorine Contact Tank and Outfall - Secondary/Tertiary Chlorine contact Tank, Outfall and Red Hill Creek Upgrades	2019-2021	43,246,869	997,717		42,249,152	16,081,115	23,174,887	2,993,150	1,885,684	1,107,465
8a	Plant Expansion - Engineering (Projects 1, 4a, 4b, 5, 13) Phase 1	2019-2021	24,810,804	913,658		23,897,146	21,156,173		2,740,974	1,726,813	1,014,160
8b	Plant Expansion - Engineering (Projects 1, 4a, 4b, 5, 13) Phase 2	2019-2021	25,573,521	941,745		24,631,776	21,806,541		2,825,235	1,779,898	1,045,337
8d	Plant Expansion - Engineering - Other Costs (includes WWE Modular Office Building)	2019-2021	8,428,089	310,364		8,117,725	7,186,631		931,093	586,589	344,504
11a	Biogas Digester - Biogas Upgrades	2019-2021	45,005,784	805,742		44,200,042	21,782,816	20,000,000	2,417,226	1,522,852	894,374
13a	Electrical System Upgrades - New Electrical and power systems - Phase 1	2019-2021	63,202,719	1,319,620		61,883,099	22,202,990	35,721,251	3,958,859	2,494,081	1,464,778
14	Collection System Upgrades	2019-2021	10,328,835	-		10,328,835	3,544,835	6,784,000	-	-	-
	Plant Expansion:		-	-							
4b	Tertiary Upgrades - New Secondary/Tertiary Treatment Plant (Phase 2)	2025-2031	224,800,000	56,200,000		168,600,000	-		168,600,000	106,218,000	62,382,000



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Wastewater Facilities

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 63%	Non-Residential Share 37%
	2019-2031										
8c	Plant Expansion - Engineering (Projects 1, 4a, 4b, 5, 13) Phase 3	2025-2031	28,300,000	7,075,000		21,225,000	-		21,225,000	13,371,750	7,853,250
11b	Biogas Digester - Digesters Upgrades	2025-2031	8,430,000	2,107,500		6,322,500	-		6,322,500	3,983,175	2,339,325
13b	Electrical System Upgrades - New Electrical and power systems - Phase 2	2025-2031	34,844,000	8,711,000		26,133,000	-		26,133,000	16,463,790	9,669,210
	Biosolids Management Facility:										
12	Biosolids Management Facility - Biosolids Thermal Reduction Disposal Facility	2019-2021	99,440,000	4,010,217		95,429,783	69,099,130	14,300,000	12,030,652	7,579,311	4,451,341
	Reserve Fund Adjustment		-	-		-	72,461,548		(72,461,548)	(45,650,775)	(26,810,773)
	Total		927,653,374	89,514,918	-	838,138,456	367,729,172	274,326,078	196,083,206	123,532,420	72,550,786



18.3 Detail Sheets (Prepared by GM BluePlan Engineering Consultants Ltd.)

TABLE F-3 - WASTEWATER CAPITAL PROGRAM

Area	Planning Period	Project ID	Project/Street	From	To	Length (m)	Size (mm)	Estimated Total Cost (\$2019)	Direct Developer Contribution (\$2019)	Benefit to Existing (%)	Benefit to Existing (\$2019)	Post Period Benefit (%)	Post Period Benefit (\$2019)	Development Charges (\$2019)	Updated Timing	Updated Cost	Scope Change: Location	Scope Change: Length and/or Size	Project Added	2014-2019 Change Details
WATERDOWN																				
Waterdown	0 to 5 years	W3-S-19	Waterdown North Area	McCurdy Ave	Northerly	340	600	\$ 291,000	\$ 248,000	0%	\$ -	0%	\$ -	\$ 43,000		X		X		Updated length, updated unit cost (inflation)
Waterdown	0 to 5 years	W4-S-19	Waterdown South Sewer	Dundas St and Evans Ave	300 m south and 300 m west of Dundas St and Evans Ave	640	525	\$ 498,000	\$ 466,000	0%	\$ -	0%	\$ -	\$ 32,000		X	X	X		Updated length and alignment. Updated unit cost (inflation)
Waterdown	0 to 5 years	W6-S-19	DCO14- Existing Pump Capacity & Wet Well upgrade at 1st St / Hwy 5	Increase capacity from 283 L/s (measured) to 456 L/s with 3 replacement pumps			456 L/s	\$ 4,930,000	\$ -	39%	\$ 1,922,000	10%	\$ 300,800	\$ 2,707,200	X	X		X		Updated cost based on City Capital Budget
Waterdown	0 to 5 years	W7-S-19	Waterdown WWTP Decommissioning					\$ 6,000,000	\$ -	90%	\$ 5,400,000	0%	\$ -	\$ 600,000		X				Updated cost based on City Capital Budget
ANCASTER																				
Ancaster	0 to 5 years	A13-S-19	Ancaster Industrial Park Area- Hydro Corridor	Shaver Rd	New road	820	450	\$ 863,000	\$ -	0%	\$ -	0%	\$ -	\$ 863,000		X	X	X		Updated length and alignment. Updated unit cost (inflation)
Ancaster	0 to 5 years	A17-S-19	Area north of Garner Rd E / between Silver Maple Dr and Hwy 6	Garner Rd	30 m east of Silver Maple Dr	410	600	\$ 351,000	\$ 299,000	0%	\$ -	0%	\$ -	\$ 52,000	X	X	X	X		Updated length, updated unit cost (inflation)
Ancaster	0 to 5 years	A20-S-19	Commandant Rd extension	Tradewind Dr	Trinity Rd	740	1050	\$ 1,280,000	\$ 539,000	0%	\$ -	58%	\$ 741,000	\$ -		X	X	X		Updated length, updated unit cost (inflation)
Ancaster	0 to 5 years	A21-S-19	Shaver Rd	Osprey Dr	Hydro Corridor	840	375	\$ 596,000	\$ -	0%	\$ -	0%	\$ -	\$ 596,000					X	New
AEG/MT- HOPE																				
AEG/MT- Hope	0 to 5 years	MH1-S-19	Twenty Rd	Silverbirch Blvd	Upper James St	2000	450	\$ 2,896,000	\$ -	0%	\$ -	0%	\$ -	\$ 2,896,000		X				Updated length, updated unit cost (inflation)
AEG/MT- Hope	0 to 5 years	MH2-S-19	Southgate Rd	Hydro Corridor	Garner Rd	875	375	\$ 621,000	\$ -	0%	\$ -	0%	\$ -	\$ 621,000		X				Updated unit cost - inflation only
AEG/MT- Hope	0 to 5 years	MH3-S-19	Garner Rd	Hwy 6	Kitty Murray Ln	1150	375	\$ 1,553,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,553,000		X				Updated unit cost - inflation only
AEG/MT- Hope	0 to 5 years	MH4-S-19	Garner Rd	Kitty Murray Ln	Springbrook Ave	630	450	\$ 912,000	\$ -	0%	\$ -	0%	\$ -	\$ 912,000		X				Updated unit cost - inflation only
AEG/MT- Hope	0 to 5 years	MH5-S-19	Smith Rd	Hydro Corridor	Garner Rd	700	375	\$ 497,000	\$ -	0%	\$ -	0%	\$ -	\$ 497,000		X				Updated unit cost - inflation only
AEG/MT- Hope	0 to 5 years	MH6-S-19	Garner Rd	Springbrook Rd	Raymond Rd	880	600	\$ 1,531,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,531,000		X				Updated unit cost - inflation only
AEG/MT- Hope	0 to 5 years	MH22-S-19	HC019 and HC018 Upgrade Strategy					\$ 10,900,000	\$ -	0%	\$ -	0%	\$ -	\$ 10,900,000					X	New
AEG/MT- Hope	6 years to UBBO	MH10-S-19	Dickenson Rd Trunk Sewer	Garth St Extension	Upper James St	1200	750	\$ 2,670,000	\$ -	0%	\$ -	0%	\$ -	\$ 2,670,000		X	X	X		Updated length, updated unit cost (inflation)
AEG/MT- Hope	6 years to UBBO	MH11-S-19	Book Rd Trunk Sewer	400 m west of Southgate	Smith Rd	830	600	\$ 710,000	\$ -	0%	\$ -	0%	\$ -	\$ 710,000		X	X	X		Updated length, updated unit cost (inflation)
AEG/MT- Hope	6 years to UBBO	MH12-S-19	Smith Rd	Hydro Corridor	Book Rd	950	375	\$ 674,000	\$ -	0%	\$ -	0%	\$ -	\$ 674,000		X				Updated unit cost - inflation only
AEG/MT- Hope	6 years to UBBO	MH13-S-19	Garth St Extension	Smith Rd	Dickenson Rd	2275	525	\$ 3,625,000	\$ 3,294,000	0%	\$ -	0%	\$ -	\$ 331,000		X				Updated unit cost - inflation only
AEG/MT- Hope	6 years to UBBO	MH14-S-19	Glancaister Rd	Airport	Garth St extension	450	375	\$ 319,000	\$ -	0%	\$ -	0%	\$ -	\$ 319,000		X				Updated unit cost - inflation only
AEG/MT- Hope	6 years to UBBO	MH15-S-19	Glancaister Rd	Dickenson Rd	Garth St extension	375	375	\$ 266,000	\$ -	0%	\$ -	0%	\$ -	\$ 266,000		X				Updated unit cost - inflation only
AEG/MT- Hope	6 years to UBBO	MH16-S-19	Glancaister Rd	Book Rd	Dickenson Rd	380	375	\$ 270,000	\$ -	0%	\$ -	0%	\$ -	\$ 270,000		X		X		Updated length, updated unit cost (inflation)
AEG/MT- Hope	6 years to UBBO	MH17-S-19	Dickenson Rd	Garth St Extension	Smith Rd	2420	600	\$ 2,069,000	\$ -	0%	\$ -	0%	\$ -	\$ 2,069,000		X	X	X		Updated length, diameter and unit cost (inflation)
AEG/MT- Hope	6 years to UBBO	MH18-S-19	Book Rd	Glancaister Rd	Smith Rd	950	375	\$ 674,000	\$ -	0%	\$ -	0%	\$ -	\$ 674,000		X		X		Updated length, updated unit cost (inflation)
AEG/MT- Hope	6 years to UBBO	MH19-S-19	Southgate Rd	Hydro Corridor	Book Rd	875	375	\$ 621,000	\$ -	0%	\$ -	0%	\$ -	\$ 621,000		X				Updated unit cost - inflation only
AEG/MT- Hope	6 years to UBBO	MH20-S-19	Smith Rd	Book Rd	Garth St extension	675	375	\$ 479,000	\$ -	0%	\$ -	0%	\$ -	\$ 479,000		X		X		Updated length, updated unit cost (inflation)
AEG/MT- Hope	6 years to UBBO	MH21-S-19	Southgate Rd	Book Rd	Garth St extension	525	375	\$ 372,000	\$ -	0%	\$ -	0%	\$ -	\$ 372,000		X		X	X	New - MH21 now gravity sewer - SPS project removed
BINBROOK																				
Binbrook	0 to 5 years	B2-S-19	PS HCO56 Upgrade - Regional Rd. 66 at Southbrook Dr	Electrical, mechanical upgrades to SPS and replacement of 3 pumps			340 L/s	\$ 1,076,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,076,000		X				Updated cost - inflation only
Binbrook	0 to 5 years	B10-S-19	Winewood Dr Extension	Fletcher Rd	Brigham Ave	850	600	\$ 727,000	\$ 619,000	0%	\$ -	0%	\$ -	\$ 108,000		X	X	X		Updated length, updated unit cost (inflation)
Binbrook	0 to 5 years	B11-S-19	Binbrook Rd	Fletcher Rd	Brigham Ave	850	375	\$ 603,000	\$ -	0%	\$ -	0%	\$ -	\$ 603,000					X	Updated alignment, updated unit cost (inflation)



TABLE F-3 - WASTEWATER CAPITAL PROGRAM

Area	Planning Period	Project ID	Project/Street	From	To	Length (m)	Size (mm)	Estimated Total Cost (\$2019)	Direct Developer Contribution (\$2019)	Benefit to Existing (%)	Benefit to Existing (\$2019)	Post Period Benefit (%)	Post Period Benefit (\$2019)	Development Charges (\$2019)	Updated Timing	Updated Cost	Scope Change: Location	Scope Change: Length and/or Size	Project Added	2014-2019 Change Details
HAMILTON MOUNTAIN																				
Hamilton Mountain	0 to 5 years	HMB-S-19	Darvall Rd extension	Twenty Rd	730 m south	730	525	\$ 567,000	\$ 532,000	0%	\$ -	0%	\$ -	\$ 35,000		X	X	X		Updated length, updated unit cost (inflation)
Hamilton Mountain	0 to 5 years	HMB-S-19	Nebe Rd	250 m north of Twenty Rd East	480 m south of Rymal Rd	630	375	\$ 851,000	\$ -	0%	\$ -	0%	\$ -	\$ 851,000		X				Updated unit cost - inflation only
Hamilton Mountain	0 to 5 years	HM10-S-19	Upper Ottawa St	275 m north of Twenty Rd East	350 m south of Rymal Rd	675	375	\$ 479,000	\$ -	0%	\$ -	0%	\$ -	\$ 479,000		X				Updated unit cost - inflation only
Hamilton Mountain	0 to 5 years	HM20-S-19	Dickenson Rd Trunk Sewer	Upper James St	Miles Rd	2900	1200	\$ 44,200,000	\$ -	0%	\$ -	10%	\$ 4,420,000	\$ 39,780,000	X	X	X	X		Updated scope, length, alignment, cost from City Project Detail Sheet
Hamilton Mountain	0 to 5 years	HM26-S-19	Dickenson Rd Trunk Sewer	Miles Rd	RR 56	6800	1350	\$ 44,200,000	\$ -	0%	\$ -	10%	\$ 4,420,000	\$ 39,780,000	X	X	X	X		Updated scope, length, alignment, cost from City Project Detail Sheet
Hamilton Mountain	6 years to UBBO	HMD-S-19	Miles Rd	Connection of sewers east and west of Miles Rd		50	375	\$ 68,000	\$ -	0%	\$ -	0%	\$ -	\$ 68,000		X	X	X		Updated length, updated unit cost (inflation)
STONE CREEK UPPER																				
Stoney Creek Upper	0 to 5 years	SCU5-S-19	Rymal Rd	Upper Centennial	2nd Rd West	1650	450	\$ 2,389,000	\$ -	0%	\$ -	0%	\$ -	\$ 2,389,000		X		X		Updated diameter, updated unit cost (inflation)
Stoney Creek Upper	6 years to UBBO	SCU11-S-14	Elfrida Collection Network					\$ 27,695,000	\$ 3,107,000	0%	\$ -	66%	\$ 18,279,000	\$ 6,309,000		X				Updated cost - inflation only
STONE CREEK LOWER																				
Stoney Creek Lower	0 to 5 years	SCL1-S-19	South Service Rd	50 m east of Fifty Road	200 m east of Winona Rd	590	600	\$ 1,910,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,910,000		X	X	X		Updated length, updated unit cost (inflation)
Stoney Creek Lower	0 to 5 years	SCL2-S-19	Forcmain- South Service Rd	New SPS	30 m west	30	150	\$ 17,000	\$ -	0%	\$ -	0%	\$ -	\$ 17,000		X	X	X		Updated length, updated unit cost (inflation)
Stoney Creek Lower	0 to 5 years	SCL3-S-19	New Sewage Pumping Station at South Service Rd, east of Fifty Rd					\$ 352,000	\$ -	0%	\$ -	0%	\$ -	\$ 352,000		X				Updated cost - inflation only
Stoney Creek Lower	0 to 5 years	SCL11-S-19	Centennial Trunk Sewer	King St	EST at Kenora Ave	3510	1500	\$ 17,324,000	\$ -	0%	\$ -	10%	\$ 1,732,400	\$ 15,591,600		X				Updated cost - inflation only
Stoney Creek Lower	0 to 5 years	SCL14-S-19	South Service Rd	50 m east of Fifty Road	500 m east	500	450	\$ 724,000	\$ 362,000	0%	\$ -	0%	\$ -	\$ 362,000		X	X	X		Updated length, updated unit cost (inflation)
Stoney Creek Lower	0 to 5 years	SCL17-S-19	Fifty Rd	South Service Rd	475 m south	475	675	\$ 1,387,000	\$ -	0%	\$ -	20%	\$ 277,000	\$ 1,110,000		X	X	X		Updated length, updated unit cost (inflation)
Stoney Creek Lower	0 to 5 years	SCL18-S-19	Barton St	Jones Rd	470 m east toward Glover	470	450	\$ 680,000	\$ -	0%	\$ -	0%	\$ -	\$ 680,000					X	New
Stoney Creek Lower	0 to 5 years	SCL19-S-19	Glover Rd	Hay 6	500 m north, past Watercourse 7	500	450	\$ 724,000	\$ -	10%	\$ 72,000	0%	\$ -	\$ 652,000					X	New
Stoney Creek Lower	0 to 5 years	SCL20-S-19	Barton St	McNeilly Rd	200 m east of McNeilly Rd	200	375	\$ 270,000	\$ -	0%	\$ -	0%	\$ -	\$ 270,000					X	New
Stoney Creek Lower	0 to 5 years	SCL21-S-19	Barton St	200 m east of McNeilly Rd	Lewis Rd	600	450	\$ 869,000	\$ -	0%	\$ -	0%	\$ -	\$ 869,000					X	New
Stoney Creek Lower	0 to 5 years	SCL22-S-19	Barton St	Lewis Rd	350 m east of Lewis Rd	350	450	\$ 507,000	\$ -	10%	\$ 51,000	0%	\$ -	\$ 456,000					X	New
Stoney Creek Lower	0 to 5 years	SCL24-S-19	Barton St	350 m east of Fruitland Rd	200 m east	200	525	\$ 319,000	\$ -	10%	\$ 32,000	0%	\$ -	\$ 287,000					X	New
Stoney Creek Lower	0 to 5 years	SCL25-S-19	Jones St	350 south of Barton St	200 m south	200	450	\$ 290,000	\$ -	10%	\$ 29,000	0%	\$ -	\$ 261,000					X	New
Stoney Creek Lower	0 to 5 years	SCL26-S-19	Vortex Flow Insert Units for Centennial Trunk Sewer					\$ 800,000	\$ -	0%	\$ -	0%	\$ -	\$ 800,000					X	New
Stoney Creek Lower	0 to 5 years	SCL16-S-19	Miles Rd and easement (DEW Crossing)	South Service Rd	North Service Rd	120	450	\$ 1,125,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,125,000					X	New



TABLE F-4 - WASTEWATER CAPITAL IWASTEWATER CAPITAL PROGRAM-CITYWIDE

Area	Planning Period	Project ID	Project	Description	Estimated Total Cost	Direct Developer Contribution	City Cost Share	Post Period Benefit	Development Charges (\$2019)	Updated Timing	Updated Cost	Scope Change: Location	Scope Change: Length and/or Size	Project Added	2014-2019 Change Details
City Wide Projects	0 to 5 years	CW1-S-19	Flow Monitoring	Total cost over a period of 2 - 2.5 years. Study being undertaken to know various flow characteristics to calibrate the Sanitary Sewer Model to assist the Master Planning Study	\$ 2,448,000	\$ -	\$ 1,224,000	\$ -	\$ 1,224,000		X				Updated cost - inflation only
City Wide Projects	0 to 5 years	CW2-S-19	W Reduction Program	Program to free up extra capacity within the existing sewers - costs over five years	\$ 1,574,000	\$ -	\$ 787,000	\$ -	\$ 787,000		X				Updated cost - inflation only
City Wide Projects	0 to 5 years	CW3-S-19	Annual Operational Improvements Outstations, \$160067052	Operational improvements to wastewater outstations to increase capacities.	\$ 611,000	\$ -	\$ 152,750	\$ -	\$ 458,250		X				Updated cost - inflation only
City Wide Projects	0 to 5 years	CW4-S-19	Oversizing of Infrastructure-Sanitary	Oversizing of servicing infrastructure within subdivisions	\$ 611,000	\$ -	\$ -	\$ -	\$ 611,000		X				Updated cost - inflation only
City Wide Projects	0 to 5 years	CW5-S-19	Land requirement for new sewage pumping stations and easements	Areas for SPS footprints and easements- 5 Ha	\$ 611,000	\$ -	\$ -	\$ -	\$ 611,000		X				Updated cost - inflation only
City Wide Projects	0 to 5 years	CW6-S-19	Intensification Infrastructure Upgrades - Wastewater (0-5 years)	Upgrades to existing infrastructure to accommodate intensification	\$ 15,000,000	\$ -	\$ 7,500,000	\$ -	\$ 7,500,000		X		X		Updated cost; increased to account for additional anticipated intensification costs
City Wide Projects	0 to 5 years	CW15-S-19	Hwy 403 Trunk sewer twinning - Phase 1	MIP to Main-King	\$ 8,823,000	\$ -	\$ -	\$ -	\$ 8,823,000		X				Updated cost - inflation only
City Wide Projects	0 to 5 years	CW18-S-19	Oversizing of Infrastructure-Sanitary	Oversizing of servicing infrastructure for subdivisions not identified on draft plans	\$ 1,171,000	\$ -	\$ -	\$ -	\$ 1,171,000		X				Updated cost - inflation only
City Wide Projects	0 to 5 years	CW19-S-19	Regional Subdivider's Share for Local Improvements		\$ 257,000	\$ -	\$ -	\$ -	\$ 257,000		X				Updated cost - inflation only
City Wide Projects	0 to 5 years	CW20-S-19	West Harbour Sanitary Pumping Station and Foremain	New SPS at north end of Pier 7/8, storage tank and twin forcemain discharging to Ferguson/Burlington	\$ 15,000,000	\$ -	\$ 1,500,000	\$ -	\$ 13,500,000		X				Updated cost - City Estimate
City Wide Projects	0 to 5 years	CW22-S-19	Master Plan and additional studies		\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,000,000					X	New
City Wide Projects	6 years to UBBO	CW7-S-19	Intensification Infrastructure Upgrades - Wastewater	Upgrades to existing infrastructure to accommodate intensification	\$ 15,000,000	\$ -	\$ 7,500,000	\$ -	\$ 7,500,000		X		X		Updated cost; increased to account for additional anticipated intensification costs
City Wide Projects	6 years to UBBO	CW16-S-19	Hwy 403 Trunk sewer twinning - Phase 2	Royal CSO to MIP	\$ 7,656,000	\$ -	\$ -	\$ -	\$ 7,656,000		X				Updated cost - inflation only



TABLE F-5 - WOODWARD WWTP CAPITAL PROGRAM

Project ID	Description	CAPITAL COST					DEVELOPMENT CHARGES						
		Capital Cost Estimate (\$2019)	Internal Staffing Cost Allocation (Not Eligible for Funding)	Capital Cost w Internal Staffing (\$)	Grants, Subsidies and Other Contributions Attributable to New Development	Project Cost Less Grants, Subsidies, etc (\$)	Growth (%)	Non-Growth (%)	Benefit to Existing (\$)	Growth Related Cost (\$)	Post Period (%)	Growth - Post Period (\$)	Growth - In Period DC APPLICABLE COST (\$)
1	Wastewater Pumping Station	\$ 94,537,813	\$ 1,436,662	\$ 95,974,275	\$ 56,987,925	\$ 38,986,350	18.84%	81.16%	\$ 31,641,095	\$ 7,345,254	25.00%	\$ 1,836,314	\$ 5,508,941
2a	Primary Clarifier - Primary Treatment (Phase 1 - CEPT) - Engineering Included	\$ 16,255,669	\$ -	\$ 16,255,669	\$ 5,195,046	\$ 11,060,623	18.84%	81.16%	\$ 8,976,738	\$ 2,083,885	25.00%	\$ 520,971	\$ 1,562,914
2b	Primary Clarifier - Primary Treatment (Phase 2 - Tanks) - Engineering Included	\$ 52,246,549	\$ -	\$ 52,246,549	\$ 34,831,033	\$ 17,415,516	18.84%	81.16%	\$ 14,134,332	\$ 3,281,184	25.00%	\$ 820,296	\$ 2,460,888
2c	Primary Clarifier - Other Costs (includes New/Expanded Laboratory/Admin Building)	\$ 11,857,782	\$ -	\$ 11,857,782	\$ -	\$ 11,857,782	52.92%	47.08%	\$ 5,582,644	\$ 6,275,138	25.00%	\$ 1,568,785	\$ 4,706,354
3	Tertiary Upgrades - North and South Secondary Treatment Plant Upgrades	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%	100.00%	\$ -	\$ -	0.00%	\$ -	\$ -
4a	Tertiary Upgrades - New Secondary/Tertiary Treatment Plant (Phase 1)	\$ 132,889,001	\$ 2,019,477	\$ 134,908,478	\$ 77,331,936	\$ 57,576,542	9.56%	90.44%	\$ 52,072,582	\$ 5,503,959	25.00%	\$ 1,375,990	\$ 4,127,969
4b	Tertiary Upgrades - New Secondary/Tertiary Treatment Plant (Phase 2)	\$ 224,800,000	\$ -	\$ 224,800,000	\$ -	\$ 224,800,000	100.00%	0.00%	\$ -	\$ 224,800,000	25.00%	\$ 56,200,000	\$ 168,600,000
5a	Chlorine Contact Tank and Outfall - Railway Re-Alignment	\$ -	\$ -	\$ -	\$ -	\$ -	19.88%	80.12%	\$ -	\$ -	25.00%	\$ -	\$ -
5b	Chlorine Contact Tank and Outfall - Secondary/Tertiary Chlorine contact Tank, Outfall and Red Hill Creek Upgrades	\$ 42,599,496	\$ 647,373	\$ 43,246,869	\$ 23,174,887	\$ 20,071,982	19.88%	80.12%	\$ 16,081,115	\$ 3,990,867	25.00%	\$ 997,717	\$ 2,993,150
7	Chlorine Contact Tank and Outfall - New Outfall (included in 5b project)	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%	100.00%	\$ -	\$ -	25.00%	\$ -	\$ -
8	Plant Expansion - Engineering (Projects 1, 4a, 4b, 5, 13) Phase 1	\$ 24,810,804	\$ -	\$ 24,810,804	\$ -	\$ 24,810,804	14.73%	85.27%	\$ 21,156,173	\$ 3,654,631	25.00%	\$ 913,658	\$ 2,740,974
8	Plant Expansion - Engineering (Projects 1, 4a, 4b, 5, 13) Phase 2	\$ 25,573,521	\$ -	\$ 25,573,521	\$ -	\$ 25,573,521	14.73%	85.27%	\$ 21,806,541	\$ 3,766,980	25.00%	\$ 941,745	\$ 2,825,235
8	Plant Expansion - Engineering (Projects 1, 4a, 4b, 5, 13) Phase 3	\$ 28,300,000	\$ -	\$ 28,300,000	\$ -	\$ 28,300,000	100.00%	0.00%	\$ -	\$ 28,300,000	25.00%	\$ 7,075,000	\$ 21,225,000
8	Plant Expansion - Engineering - Other Costs (includes WWT Modular Office Building)	\$ 5,623,839	\$ 2,804,250	\$ 8,428,089	\$ -	\$ 8,428,089	14.73%	85.27%	\$ 7,186,631	\$ 1,241,457	25.00%	\$ 310,364	\$ 931,093
6	Biogas Digester - New WAS Thickening Facility (forms part of the Digester Upgrades)	\$ -	\$ -	\$ -	\$ -	\$ -		100.00%	\$ -	\$ -	0.00%	\$ -	\$ -
9	Biogas Digester - Additional Dewatering Capacity	\$ -	\$ -	\$ -	\$ -	\$ -		100.00%	\$ -	\$ -	0.00%	\$ -	\$ -
10	Biogas Digester - Refurbishment of Digesters to Increase Capacity	\$ -	\$ -	\$ -	\$ -	\$ -		100.00%	\$ -	\$ -	0.00%	\$ -	\$ -
11a	Biogas Digester - Biogas Upgrades	\$ 45,005,784	\$ -	\$ 45,005,784	\$ 20,000,000	\$ 25,005,784	12.89%	87.11%	\$ 21,782,816	\$ 3,222,968	25.00%	\$ 805,742	\$ 2,417,226
11b	Biogas Digester - Digesters Upgrades	\$ 8,430,000	\$ -	\$ 8,430,000	\$ -	\$ 8,430,000	100.00%	0.00%	\$ -	\$ 8,430,000	25.00%	\$ 2,107,500	\$ 6,322,500
12	Biosolids Management Facility - Biosolids Thermal Reduction Disposal Facility	\$ 99,440,000	\$ -	\$ 99,440,000	\$ 14,300,000	\$ 85,140,000	18.84%	81.16%	\$ 69,099,130	\$ 16,040,870	25.00%	\$ 4,010,217	\$ 12,030,652
13a	Electrical System Upgrades - New Electrical and power systems - Phase 1	\$ 62,256,622	\$ 946,097	\$ 63,202,719	\$ 35,721,251	\$ 27,481,468	19.21%	80.79%	\$ 22,202,989	\$ 5,278,478	25.00%	\$ 1,319,620	\$ 3,958,859
13b	Electrical System Upgrades - New Electrical and power systems - Phase 2	\$ 34,844,000	\$ -	\$ 34,844,000	\$ -	\$ 34,844,000	100.00%	0.00%	\$ -	\$ 34,844,000	25.00%	\$ 8,711,000	\$ 26,133,000
14	Collection System Upgrades	\$ 10,176,000	\$ 154,642	\$ 10,330,642	\$ 6,784,000	\$ 3,546,642	0.00%	100.00%	\$ 3,546,642	\$ -	0.00%	\$ -	\$ -
	Total	\$ 919,646,680	\$ 8,008,501	\$ 927,655,181	\$ 274,326,079	\$ 653,329,102			\$ 295,269,430	\$ 358,059,672		\$ 89,514,918	\$ 268,544,754



19. Water Services



19.1 Water Services

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton
Service: Water Services

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 63%	Non-Residential Share 37%
	2019-2031										
1	Ancaster Water Distribution System	2019-2023	31,804,000	672,500		31,131,500	7,402,000		23,729,500	14,949,585	8,779,915
2	Waterdown Water Distribution System	2019-2023	20,414,000	811,000		19,603,000	3,554,000	408,000	15,641,000	9,853,830	5,787,170
3	Binbrook Water Distribution System	2019-2023	11,465,000	-		11,465,000	-	729,000	10,736,000	6,763,680	3,972,320
4	AEGD/Mount Hope Water Distribution System	2019-2023	761,000	-		761,000	-		761,000	479,430	281,570
5	AEGD/Mount Hope Water Distribution System	2024-2031	15,180,000	-		15,180,000	-	3,636,000	11,544,000	7,272,720	4,271,280
6	Hamilton Mountain Water Distribution System	2019-2023	48,495,700	6,636,970		41,858,730	-	1,277,000	40,581,730	25,566,490	15,015,240
7	Hamilton Mountain Water Distribution System	2024-2031	2,283,000	-		2,283,000	-	215,000	2,068,000	1,302,840	765,160
8	Stoney Creek Upper Water Distribution System	2019-2023	39,036,000	2,705,250		36,330,750	5,217,500	498,000	30,615,250	19,287,608	11,327,643
9	Stoney Creek Upper Water Distribution System	2024-2031	63,819,000	27,310,000		36,509,000	-	3,107,000	33,402,000	21,043,260	12,358,740
10	Stoney Creek Lower Water Distribution System	2019-2023	1,353,000	-		1,353,000	-		1,353,000	852,390	500,610
11	Stoney Creek Lower Water Distribution System	2024-2031	7,317,000	-		7,317,000	-		7,317,000	4,609,710	2,707,290
12	City Wide Water Distribution System	2019-2023	92,448,000	5,636,700		86,811,300	7,917,000		78,894,300	49,703,409	29,190,891
13	City Wide Water Distribution System	2024-2031	19,294,000	-		19,294,000	7,500,000		11,794,000	7,430,220	4,363,780
14	Existing Debt Principal (Discounted)	2019-2023	98,608	-		98,608	-		98,608	62,123	36,485
15	Existing Debt Interest (Discounted)	2019-2023	8,228	-		8,228	-		8,228	5,183	3,044
16	Growth Related Financing Costs (Discounted)	2019-2034	32,135,051	-		32,135,051	-		32,135,051	20,245,082	11,889,969
17	Provisional Post Period Benefit Deduction	2019-2031		35,000,000		(35,000,000)	-		(35,000,000)	(22,050,000)	(12,950,000)
18	Reserve Fund Adjustment		-	-		-	26,169,980		(26,169,980)	(16,487,087)	(9,682,893)
	Total		385,911,587	78,772,420	-	307,139,167	57,760,480	9,870,000	239,508,687	150,890,473	88,618,214



19.2 Detail Sheets (Prepared by GM BluePlan Engineering Consultants Ltd.)

TABLE F-1 - WATER CAPITAL PROGRAM

Area	Planning Period	Project ID	Project/Street	From	To	Length (m)	Size (mm)	Estimated Total Cost (\$2019)	Direct Developer Contribution (\$2019)	Benefit to Existing	Benefit to Existing (\$2019)	Post Period Benefit (%)	Post Period Benefit (\$2019)	Development Charges (\$2019)	Updated Timing	Updated Cost	Scope Change Location	Scope Change Length and/or Size	Project Added	2014-2019 Change Details
WATERDOWN																				
Waterdown	0 to 5 years	W2-W-19	New Road	Sadelou Blvd	Mosaic Dr	700	400	\$ 680,000	\$ 408,000	0%	\$ -	0%	\$ -	\$ 272,000		X	X	X		Updated length and alignment, updated unit cost (inflation)
Waterdown	0 to 5 years	W6-W-19	HD016 Booster Station Upgrade, Back Up Power and Building Renovation	208 L/s	300 L/s		4 x 103 L/s	\$ 8,510,000	\$ -	10%	\$ 851,000	0%	\$ -	\$ 7,659,000		X				Updated cost based on City Capital Budget
Waterdown	0 to 5 years	W10-W-19	PD16 Feedership - Valley Rd and Rock Chapel Rd	PS HD016	Dundas St/Algonquin Ave	2900	600	\$ 10,813,000	\$ -	25%	\$ 2,703,000	10%	\$ 811,000	\$ 7,299,000		X		X		Updated cost - inflation only; slight alignment update
Waterdown	0 to 5 years	W11-W-19	Up Country Estates - Dundas St	575 m west of Evans Ave	210 m west of Evans Ave	365	300	\$ 411,000	\$ -	0%	\$ -	0%	\$ -	\$ 411,000		X	X	X		Updated length, updated unit cost (inflation)
ANCASTER																				
Ancaster	0 to 5 years	A1-W-19	Garner Rd.	Southcoke Rd	Fiddlers Green Rd	2080	600	\$ 9,936,000	\$ -	0%	\$ -	0%	\$ -	\$ 9,936,000		X				Updated cost - inflation only
Ancaster	0 to 5 years	A2-W-19	Shaver Rd	Westview Ave	Katara Pl	800	300	\$ 902,000	\$ -	75%	\$ 677,000	0%	\$ -	\$ 225,000	X	X	X			Updated extent, updated unit cost (inflation)
Ancaster	0 to 5 years	A4-W-19	Ancaster Industrial Park - South Connection	McClure Rd Extension WM	Comorant Dr (aka Hydro easement)	900	300	\$ 525,000	\$ -	0%	\$ -	0%	\$ -	\$ 525,000		X		X		Updated length, updated unit cost (inflation)
Ancaster	0 to 5 years	A16-W-19	Garner Rd	Fiddlers Green Rd	Hamilton Dr	1680	600	\$ 3,755,000	\$ -	0%	\$ -	0%	\$ -	\$ 3,755,000		X		X		Diameter updated from 500mm to 600mm, unit cost updated (inflation)
Ancaster	0 to 5 years	A17-W-19	Garner Rd	Hamilton Dr	Wilson St W	1800	500	\$ 3,236,000	\$ -	0%	\$ -	0%	\$ -	\$ 3,236,000		X				Updated unit cost - inflation only
Ancaster	0 to 5 years	A18-W-19	Reservoir W-H 18 (additional elevated storage) AEGD Proj B-20	North of Jerseyville Road - Final location to be determined			9.9 ML	\$ 13,450,000	\$ -	50%	\$ 6,725,000	10%	\$ 672,500	\$ 6,052,500	X	X	X			Updated capacity, location. Cost updated based on City Design Sheet
AEGD/MT, HOPE																				
AEGD/MT, Hope	0 to 5 years	MH6-W-19	PD 18 Watermain on Southcoke Rd	Garner Rd	383 m South	383	400	\$ 372,000	\$ -	0%	\$ -	0%	\$ -	\$ 372,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	0 to 5 years	MH12-W-19	PD 18 Watermain on Garner Rd and Glancaster Rd	HD018	New Road	400	400	\$ 389,000	\$ -	0%	\$ -	0%	\$ -	\$ 389,000		X	X	X		Updated length, updated unit cost (inflation)
AEGD/MT, Hope	6 years to UBBO	MH1-W-19	PD 18 Watermain on Smith Rd	Garner Rd	389 m south	389	300	\$ 227,000	\$ -	0%	\$ -	0%	\$ -	\$ 227,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH2-W-19	PD 18 Watermain on new road	Southcoke Rd	Smith Rd	417	400	\$ 405,000	\$ 243,000	0%	\$ -	0%	\$ -	\$ 162,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH3-W-19	PD 18 Watermain on Southcoke Rd	New road	Hydro Corridor	700	400	\$ 680,000	\$ -	0%	\$ -	0%	\$ -	\$ 680,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH7-W-19	PD 6 Watermain on Book Rd	Smith Rd	372 m east of Smith Rd	372	400	\$ 361,000	\$ -	0%	\$ -	0%	\$ -	\$ 361,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH8-W-19	PD 18 Watermain on Southcoke Rd	Book Rd	590 m north	590	300	\$ 344,000	\$ -	0%	\$ -	0%	\$ -	\$ 344,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH9-W-19	PD 18 Watermain on Smith Rd	Book Rd	603 m north	603	300	\$ 352,000	\$ -	0%	\$ -	0%	\$ -	\$ 352,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH10-W-19	PD 18 Watermain on new road	Smith Rd	421 m east	421	400	\$ 409,000	\$ 245,000	0%	\$ -	0%	\$ -	\$ 164,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH11-W-14	PD 6 Watermain on Glancaster Rd	Rymal Rd	Twenty Rd	1325	400	\$ 2,124,000	\$ -	0%	\$ -	0%	\$ -	\$ 2,124,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH13-W-19	PD 18 Watermain on new road	Raymond Rd Extension	863 m west	863	400	\$ 839,000	\$ 503,000	0%	\$ -	0%	\$ -	\$ 336,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH14-W-19	PD 18 Watermain on new road	Raymond Rd Extension	552 m east	552	400	\$ 536,000	\$ 322,000	0%	\$ -	0%	\$ -	\$ 214,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH15-W-19	PD 6 Watermain on Dickenson Rd	Garth St Extension	953 m west	953	300	\$ 556,000	\$ -	0%	\$ -	0%	\$ -	\$ 556,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH16-W-19	PD 18 Watermain on Southcoke Rd	Hydro Corridor	293 m south	293	400	\$ 285,000	\$ -	0%	\$ -	0%	\$ -	\$ 285,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH17-W-19	PD 6 Watermain on Smith Rd	Book Rd	259 m south	259	400	\$ 252,000	\$ -	0%	\$ -	0%	\$ -	\$ 252,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH18-W-19	PD 18 Watermain on Smith Rd	Hydro Corridor	627 m north	627	300	\$ 366,000	\$ -	0%	\$ -	0%	\$ -	\$ 366,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH19-W-19	PD 18 Watermain on Smith Rd	Hydro Corridor	350 m south	350	300	\$ 204,000	\$ -	0%	\$ -	0%	\$ -	\$ 204,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH22-W-19	PD 6 Watermain on Book Rd	Glancaster Rd	595 m west	595	400	\$ 578,000	\$ -	0%	\$ -	0%	\$ -	\$ 578,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH23-W-19	PD 6 Watermain on Dickenson Rd	Glancaster Rd	598 m east	598	300	\$ 349,000	\$ -	0%	\$ -	0%	\$ -	\$ 349,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH24-W-19	PD 6 Watermain on new Garth St Extension	Dickenson Rd	837 m north	837	400	\$ 813,000	\$ 488,000	0%	\$ -	0%	\$ -	\$ 325,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH25-W-19	PD 6 Watermain on Dickenson Rd	Garth St	870 m east	870	300	\$ 507,000	\$ -	0%	\$ -	0%	\$ -	\$ 507,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH26-W-19	PD 6 Watermain on new Garth St Extension	Glancaster Rd	1305 m east	1305	400	\$ 1,326,000	\$ 796,000	0%	\$ -	0%	\$ -	\$ 530,000		X	X			Updated length, updated unit cost (inflation)
AEGD/MT, Hope	6 years to UBBO	MH27-W-19	PD 6 Watermain on new Garth St Extension	Dickenson Rd	MH26-W-19	600	400	\$ 583,000	\$ 350,000	0%	\$ -	0%	\$ -	\$ 233,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH28-W-19	PD 6 Watermain on Smith Rd	265 m south of Book Rd	625 m south of Book Rd	322	400	\$ 313,000	\$ -	0%	\$ -	0%	\$ -	\$ 313,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH29-W-19	PD 6 Watermain on new Garth St Extension	Twenty Rd	662 m south	662	400	\$ 643,000	\$ 386,000	0%	\$ -	0%	\$ -	\$ 257,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH30-W-19	PD 6 Watermain on Book Rd	Smith Rd	Southcoke Rd	397	400	\$ 386,000	\$ -	0%	\$ -	0%	\$ -	\$ 386,000		X				Updated unit cost - inflation only
AEGD/MT, Hope	6 years to UBBO	MH44-W-19	PD 6 Watermain on new Garth St extension	Glancaster Rd	Smith Rd	520	400	\$ 505,000	\$ 303,000	0%	\$ -	0%	\$ -	\$ 202,000		X		X		Updated length, updated unit cost (inflation)
AEGD/MT, Hope	6 years to UBBO	MH45-W-19	PD 6 Watermain on Southcoke Rd	Book Rd	590 m south	590	300	\$ 292,000	\$ -	0%	\$ -	0%	\$ -	\$ 292,000					X	New
AEGD/MT, Hope	6 years to UBBO	MH46-W-19	PD 6 Watermain on Book Rd	Southcoke Rd	420 m west	420	300	\$ 245,000	\$ -	0%	\$ -	0%	\$ -	\$ 245,000					X	New
AEGD/MT, Hope	6 years to UBBO	MH47-W-19	PD 18 Watermain on Book Rd	West of Southcoke Rd	East of Smith Rd	1200	300	\$ 700,000	\$ -	0%	\$ -	0%	\$ -	\$ 700,000					X	New



TABLE F-1 - WATER CAPITAL PROGRAM

Area	Planning Period	Project ID	Project/Street	From	To	Length (m)	Size (mm)	Estimated Total Cost (\$2019)	Direct Developer Contribution (\$2019)	Benefit to Existing	Benefit to Existing (\$2019)	Post Period Benefit (%)	Post Period Benefit (\$2019)	Development Charges (\$2019)	Updated Timing	Updated Cost	Scope Change Location	Scope Change Length and/or Size	Project Added	2014-2019 Change Details
BIRNBROOK																				
Birnbrook	0 to 5 years	B2-W-19	HD 019 Pumping Station Expansion	Regional Rd. 56				\$ 1,650,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,650,000	X	X				Updated cost based on City Capital Budget
Birnbrook	0 to 5 years	B4-W-19	Pumpkin Pass	West end of Cuts Cross and Pumpkin Pass	Fletcher Rd	400	400	\$ 389,000	\$ 233,000	0%	\$ -	0%	\$ -	\$ 156,000		X	X	X		Updated length, updated unit cost (inflation)
Birnbrook	0 to 5 years	B5-W-19	Fletcher Rd	Birnbrook Rd	Pumpkin Pass	400	400	\$ 389,000	\$ -	0%	\$ -	0%	\$ -	\$ 389,000		X				Updated unit cost - inflation only
Birnbrook	0 to 5 years	B6-W-19	Birnbrook Rd	West of Royal Winter Blvd	Fletcher Rd	850	400	\$ 826,000	\$ -	0%	\$ -	0%	\$ -	\$ 826,000		X	X	X		Updated length, updated unit cost (inflation)
Birnbrook	0 to 5 years	B7-W-19	Birnbrook Trunk Feedermain - Fletcher's Rd and Cemetery Rd	Hydro Corridor	HD019	6950	400	\$ 6,753,000	\$ -	0%	\$ -	0%	\$ -	\$ 6,753,000		X	X			Updated unit cost - inflation only
Birnbrook	0 to 5 years	B8-W-19	Birnbrook Rd	Birnbrook Boulevard Extension	Birnbrook Rd	650	400	\$ 632,000	\$ -	0%	\$ -	0%	\$ -	\$ 632,000		X	X			Updated unit cost - inflation only
Birnbrook	0 to 5 years	B9-W-19	Birnbrook Boulevard Extension	Brigham Ave	Fletcher Rd	850	400	\$ 826,000	\$ 496,000	0%	\$ -	0%	\$ -	\$ 330,000		X	X	X		Updated length, updated unit cost (inflation)
HAMILTON MOUNTAIN																				
Hamilton Mountain	0 to 5 years	HM2-W-19	Terra Blvd extension	140m West of Upper Gage Ave	Miles Rd	430	400	\$ 418,000	\$ 201,000	0%	\$ -	0%	\$ -	\$ 167,000		X	X	X		Updated length, updated unit cost (inflation)
Hamilton Mountain	0 to 5 years	HM3-W-19	Terra Blvd extension	Miles Rd	300m west	300	400	\$ 292,000	\$ 175,000	0%	\$ -	0%	\$ -	\$ 117,000	X	X				Updated unit cost - inflation only
Hamilton Mountain	0 to 5 years	HM4-W-19	Miles Rd	West extension of Terra Blvd	East extension of Terra Blvd	50	400	\$ 80,000	\$ -	0%	\$ -	0%	\$ -	\$ 80,000	X	X				Updated unit cost - inflation only
Hamilton Mountain	0 to 5 years	HM5-W-19	Vineberg Dr	140m east of Upper Wentworth St	570m east of Upper Wentworth St	430	400	\$ 418,000	\$ 201,000	0%	\$ -	0%	\$ -	\$ 167,000		X		X		Updated length, updated unit cost (inflation)
Hamilton Mountain	0 to 5 years	HM6-W-19	Twenty Rd Extension	Glover Rd	Trinity Church Rd	580	400	\$ 564,000	\$ 338,000	0%	\$ -	0%	\$ -	\$ 226,000		X				Updated unit cost - inflation only
Hamilton Mountain	0 to 5 years	HM2-W-19	Nelco Rd	Dickenson Rd	Glover Rd	350	300	\$ 395,000	\$ -	0%	\$ -	0%	\$ -	\$ 395,000		X	X	X		Updated length, updated unit cost (inflation)
Hamilton Mountain	0 to 5 years	HM13-W-19	Dickenson Rd	Nelco Rd	800m east of Nelco Rd	900	300	\$ 902,000	\$ -	0%	\$ -	0%	\$ -	\$ 902,000	X	X				Updated unit cost - inflation only
Hamilton Mountain	0 to 5 years	HM15-W-19	Darnall Rd and new road alignment	Twenty Rd	Dickenson Rd	1475	300	\$ 860,000	\$ -	0%	\$ -	0%	\$ -	\$ 860,000		X	X	X		Updated length, updated unit cost (inflation)
Hamilton Mountain	0 to 5 years	HM19-W-19	Extension of Terra Blvd	550m east of Upper Wentworth St	300m west of Miles Rd	450	400	\$ 437,000	\$ 262,000	0%	\$ -	0%	\$ -	\$ 175,000	X	X				Updated unit cost - inflation only
Hamilton Mountain	0 to 5 years	HM20-W-19	Stone Church Trunk Feedermain	First Rd W	H008B	5420	1050	\$ 28,269,700	\$ -	0%	\$ -	10%	\$ 2,626,970	\$ 25,442,730	X	X	X	X		Updated alignment, cost update from City
Hamilton Mountain	0 to 5 years	HM26-W-19	Rymal Rd E	Nelco Rd	Darnall Rd	550	300	\$ 620,000	\$ -	0%	\$ -	0%	\$ -	\$ 620,000		X		X		Updated unit cost - inflation only
Hamilton Mountain	0 to 5 years	HM28-W-19	PD7 Elevated Tank	Trinity Church Rd Twenty Rd (Exact location to be determined)			9.9 MLD	\$ 15,340,000	\$ -	0%	\$ -	25%	\$ 3,810,000	\$ 11,430,000		X	X	X		Updated capacity, location. Cost updated based on City Project Sheet
Hamilton Mountain	6 years to UBBO	HM1-W-19	Orator Dr	160m North of Stone Church Rd	Stone Church Rd	160	400	\$ 155,000	\$ 93,000	0%	\$ -	0%	\$ -	\$ 62,000		X				Updated unit cost - inflation only
Hamilton Mountain	6 years to UBBO	HM21-W-19	New East-West alignment	Upper Sherman Ave	Acadia Dr	210	400	\$ 204,000	\$ 122,000	0%	\$ -	0%	\$ -	\$ 82,000		X	X	X		Updated length, updated unit cost (inflation)
Hamilton Mountain	6 years to UBBO	HM27-W-19	Upper Wentworth / Turner Park / Twenty Rd	South Limit at Hydro Corridor	Springside Dr	1980	400	\$ 1,924,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,924,000	X	X				Updated unit cost - inflation only
STONE CREEK UPPER																				
Stoney Creek Upper	0 to 5 years	SCUB-W-19	First Rd W	Green Mountain Rd	Glover Mountain Rd	855	400	\$ 831,000	\$ 498,000	0%	\$ -	0%	\$ -	\$ 333,000		X	X	X		Updated length, updated unit cost (inflation)
Stoney Creek Upper	0 to 5 years	SCU12-W-19	PD5 Trunk Feedermain - Valve Chamber to Mud St	Valve Chamber 3B	Mud St W	2500	1200	\$ 11,400,000	\$ -	0%	\$ -	10%	\$ 1,140,000	\$ 10,260,000		X	X	X		Updated length and alignment, updated cost from City
Stoney Creek Upper	0 to 5 years	SCU16-W-19	Upper Mount Abbon Rd	235 m south of Highland Rd W	Highland Rd W	235	300	\$ 265,000	\$ -	0%	\$ -	0%	\$ -	\$ 265,000		X	X			Updated unit cost - inflation only
Stoney Creek Upper	0 to 5 years	SCU18-W-19	PS W-45A Upgrades					\$ 20,870,000	\$ -	25%	\$ 5,217,500	10%	\$ 1,965,250	\$ 14,087,250		X				Updated cost from City Detail Sheet
Stoney Creek Upper	0 to 5 years	SCU23-W-19	PD5 Trunk Feedermain - HD05A to Valve Chamber	HD05A	Valve Chamber 3B	240	1200	\$ 5,670,000	\$ -	0%	\$ -	0%	\$ -	\$ 5,670,000					X	New
Stoney Creek Upper	6 years to UBBO	SCU7-W-19	Highland Reservoir HD07 (additional storage)				5.5 MLD	\$ 12,420,000	\$ -	0%	\$ -	25%	\$ 3,105,000	\$ 9,315,000		X				Cost based on City Project Sheet
Stoney Creek Upper	6 years to UBBO	SCU17-W-19	Efrida Distribution Network					\$ 27,695,000	\$ 3,107,000	0%	\$ -	66%	\$ 18,279,000	\$ 6,309,000		X				Updated cost - inflation only
Stoney Creek Upper	6 years to UBBO	SCU21-W-19	New Zone 7 Booster Pumping Station	Upper Centennial Pkwy and Rymal Rd E			55 MLD	\$ 19,480,000	\$ -	0%	\$ -	25%	\$ 4,870,000	\$ 14,610,000		X				Updated capacity. Cost updated based on City Project Sheet
Stoney Creek Upper	6 years to UBBO	SCU22-W-19	Upper Centennial Pkwy	Mud St	New PD 7 Booster Station	1890	600	\$ 4,224,000	\$ -	0%	\$ -	25%	\$ 1,056,000	\$ 3,168,000		X	X	X		Updated length, updated unit cost (inflation)
STONE CREEK LOWER																				
Stoney Creek Lower	0 to 5 years	SCU4-W-19	Replacement on Lewis Rd	Hwy 8	Barton St	500	300	\$ 564,000	\$ -	0%	\$ -	0%	\$ -	\$ 564,000	X	X				Updated cost - inflation only
Stoney Creek Lower	0 to 5 years	SCU6-W-19	Glover Rd	Barton St	Service Rd Extension	700	300	\$ 789,000	\$ -	0%	\$ -	0%	\$ -	\$ 789,000		X				Updated cost - inflation only
Stoney Creek Lower	6 years to UBBO	SCU7-W-19	Millen Rd	South Service Rd	Avin Ave	670	400	\$ 1,674,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,674,000		X		X		Updated length, updated unit cost (inflation)
Stoney Creek Lower	6 years to UBBO	SCU8-W-19	South Service Rd	Fruitland Rd	Jones Rd	950	400	\$ 1,523,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,523,000		X		X		Updated length, updated unit cost (inflation)
Stoney Creek Lower	6 years to UBBO	SCU9-W-19	South Service Rd	Millen Rd	Seaman St	1600	400	\$ 2,565,000	\$ -	0%	\$ -	0%	\$ -	\$ 2,565,000		X				Updated cost - inflation only
Stoney Creek Lower	6 years to UBBO	SCU10-W-19	Dewitt Rd	CNR Tracks	Barton St	610	300	\$ 688,000	\$ -	0%	\$ -	0%	\$ -	\$ 688,000		X				Updated cost - inflation only
Stoney Creek Lower	6 years to UBBO	SCU11-W-19	Jones Rd	South Service Rd	Barton St	915	400	\$ 1,467,000	\$ -	0%	\$ -	0%	\$ -	\$ 1,467,000		X				Updated cost - inflation only



20. Stormwater Services



20.1 Stormwater Works & Studies – Within Separated Sewer System

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Stormwater Works & Studies (excluding Facilities) - Within Separated Sewer System

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	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
	2019-2031								44%	56%	
1	Open Watercourses - Channel System Improvements - Residential (Category A)	2019-2023	2,913,000	-		2,913,000	-		2,913,000	1,281,720	1,631,280
2	Open Watercourses - Channel System Improvements - Residential (Category A)	2024-2028	1,410,000	-		1,410,000	-		1,410,000	620,400	789,600
3	Open Watercourses - Channel System Improvements - Residential (Category A)	2029-2031	15,650,000	-		15,650,000	-		15,650,000	6,886,000	8,764,000
4	Open Watercourses - Channel System Improvements - Non-Residential (Category A)	2019-2023	1,590,000	-		1,590,000	795,000		795,000	349,800	445,200
5	Open Watercourses - Channel System Improvements - Non-Residential (Category A)	2029-2031	21,497,000	-		21,497,000	2,667,500		18,829,500	8,284,980	10,544,520
6	Off Site Erosion Works (Category B)	2019-2031	25,804,837	-		25,804,837	12,339,935		13,464,902	5,924,557	7,540,345
7	Oversizing of trunk sewers and culverts (Category D)	2019-2023	12,498,070	-		12,498,070	-		12,498,070	5,499,151	6,998,919
8	Oversizing of trunk sewers and culverts (Category D)	2024-2028	2,784,639	-		2,784,639	-		2,784,639	1,225,241	1,559,398
9	Culverts and Bridges not previously identified (Category E)	2019-2022	2,191,800	-		2,191,800	337,200		1,854,600	816,024	1,038,576
10	Culverts and Bridges not previously identified (Category E)	2023-2031	7,249,800	-		7,249,800	1,331,940		5,917,860	2,603,858	3,314,002
11	GRIDS Related Open Watercourses	2019-2031	19,497,638	-		19,497,638	-		19,497,638	8,578,961	10,918,677
12	Existing Debt on Growth Related Projects - Principal (Discounted)	2019-2031	212,923	-		212,923	-		212,923	93,686	119,237
13	Existing Debt on Growth Related Projects - Interest (Discounted)	2019-2031	61,539	-		61,539	-		61,539	27,077	34,462
14	Reserve Fund Adjustment		1,243,801			1,243,801	-		1,243,801	547,273	696,529



Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Stormwater Works & Studies (excluding Facilities) - Within Separated Sewer System

Project Number	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 44%	Non-Residential Share 56%
	2019-2031										
	Stormwater Studies:					-	-		-	-	-
15	Stormwater Management Monitoring (Separated System)	2019-2031	8,000,000	-		8,000,000	-		8,000,000	3,520,000	4,480,000
16	Specific Area Water Shed Master Plans for Separated System Area	2019-2031	3,750,000	-		3,750,000	-		3,750,000	1,650,000	2,100,000
17	Airport Block Servicing Studies (Separated System)	2019-2028	6,000,000	-		6,000,000	-		6,000,000	2,640,000	3,360,000
18	Cherry Beach EA & Preliminary Design Study (Lower Stoney Creek) (Separated System)	2022	500,000	-		500,000	-		500,000	220,000	280,000
19	Falkirk East Storm Drainage Study (Separated System)	2025	500,000	-		500,000	-		500,000	220,000	280,000
20	Stoney Creek Watercourse 6 Drainage Improvements Hwy. 8 to Lake Ontario (Separated System)	2019	1,500,000	-		1,500,000	-		1,500,000	660,000	840,000
21	Stoney Creek Watercourse 7 Drainage Improvements Upstream of Barton to Hwy. 8 (Separated System)	2020	750,000	-		750,000	-		750,000	330,000	420,000
22	Watercourse 10 - S.C.U.B.E. Drainage Improvement Study (Separated System)	2020	500,000	-		500,000	-		500,000	220,000	280,000
23	Stormwater Master Plan Update - City Wide (Proportion for Separated Sewer System)	2019	208,717	-		208,717	41,743		166,973	73,468	93,505
24	Stormwater Master Plan Update - City Wide (Proportion for Separated Sewer System)	2024	1,252,301	-		1,252,301	250,460		1,001,840	440,810	561,031
25	Stormwater Master Plan Update - City Wide (Proportion for Separated Sewer System)	2029	1,252,301	400,736		851,564	250,460		601,104	264,486	336,618
26	Unidentified Studies (Separated System)	2019-2031	2,500,000	-		2,500,000	-		2,500,000	1,100,000	1,400,000
	Total		141,318,366	400,736	-	140,917,630	18,014,239	-	122,903,392	54,077,492	68,825,899



20.2 Stormwater Facilities – Within Separated Sewer System

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Stormwater Facilities - Within Separated Sewer System

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 100%	Non-Residential Share 0%
1	Stormwater Management Quality/Quantity Facilities - Residential	2019-2023	87,987,899	-		87,987,899	-		87,988,000	87,988,000	-
2	Stormwater Management Quality/Quantity Facilities - Residential	2024-2031	86,014,925	-		86,014,925	5,922,300		80,093,000	80,093,000	-
3	Provision for Non-Residential Portion of Residential Ponds	2019-2031	(1,022,108)	-		(1,022,108)	-		(1,022,000)	(1,022,000)	-
4	Stormwater Management Quality/Quantity Facilities - Non-Residential	2019-2023	4,122,067	-		4,122,067	675,200	3,446,867	-	-	-
5	Stormwater Management Quality/Quantity Facilities - Non-Residential	2024-2031	103,879,110	-		103,879,110	2,018,178	101,860,932	-	-	-
6	Provision for Residential Portion of Non-Residential Ponds	2024-2031	651,896	-		651,896	-		652,000	652,000	-
7	GRIDS Related SWM Projects - Residential Portion	2019-2031	98,626,698	-		98,626,698	-		98,627,000	98,627,000	-
8	GRIDS Related SWM Projects - Non-Residential Portion	2019-2031	179,980,176	59,113,323		120,866,853	-	120,866,853	-	-	-
9	Provision for Stormwater Credits	2019-2031	28,922,863	-		28,922,863	-		28,922,863	28,922,863	-
10	Provision for Best Efforts Agreements	2019-2031	952,693	-		952,693	-		952,693	952,693	-
11	Reserve Fund Adjustment		2,942,503	-		2,942,503	-		2,942,503	2,942,503	-
	Total		593,058,722	59,113,323	-	533,945,399	8,615,678	226,174,652	299,156,059	299,156,059	-



20.3 Stormwater Facilities – Within Combined Sewer System

Infrastructure Costs Covered in the D.C. Calculation

City of Hamilton

Service: Stormwater Facilities - Within Combined Sewer System

Project Number	Increased Service Needs Attributable to Anticipated Development 2019-2031	Timing (year)	Gross Capital Cost Estimate (2019\$)	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 100%	Non-Residential Share 0%
1	Stormwater Management Quality/Quantity Facilities (Combined)	2024-2031	6,000,000	-		6,000,000	-		6,000,000	6,000,000	-
2	Oversizing of trunk sewers and culverts (Category D)	2019-2023	2,000,000	-		2,000,000	-		2,000,000	2,000,000	-
3	Oversizing of trunk sewers and culverts (Category D)	2025-2031	1,000,000	-		1,000,000	-		1,000,000	1,000,000	-
	Stormwater Studies:										
4	Specific Area Water Shed Master Plans for Combined Sewer Area	2019-2031	3,750,000	-		3,750,000	-		3,750,000	3,750,000	-
5	Ainslie Wood Westdale Stormwater Drainage Master Plan (Combined System)	2019	750,000	-		750,000	-		750,000	750,000	-
6	Ainslie Wood/Westdale Neighbourhoods Class EA (Combined System)	2023	340,000	-		340,000	-		340,000	340,000	-
7	Unidentified Studies (Combined System)	2019-2031	2,500,000	-		2,500,000	-		2,500,000	2,500,000	-
8	Stormwater Master Plan Update - City Wide (Proportion for Combined Sewer System)	2019	41,283	-		41,283	8,257		33,027	33,027	-
9	Stormwater Master Plan Update - City Wide (Proportion for Combined Sewer System)	2024	247,699	-		247,699	49,540		198,160	198,160	-
10	Stormwater Master Plan Update - City Wide (Proportion for Combined Sewer System)	2029	247,699	79,264		168,436	49,540		118,896	118,896	-
11	Reserve Fund Adjustment		76,961	-		76,961	-		76,961	76,961	-
	Total		16,953,643	79,264	-	16,874,379	107,336	-	16,767,043	16,767,043	-



20.4 Detail Sheets (Prepared by Wood Environment & Infrastructure Solutions)

APPENDIX G-1: CATEGORY A - OPEN WATERCOURSES: CHANNEL SYSTEM IMPROVEMENTS (IDENTIFIED PROJECTS) RESIDENTIAL

APPENDIX G-1: CATEGORY A - OPEN WATERCOURSES, CHANNEL SYSTEM IMPROVEMENTS (IDENTIFIED PROJECTS) RESIDENTIAL																	
Category			Project Title	Study Year	Drainage Area (ha)	Purpose	SWMF/ Drainage Work								Estimated Total Cost (Rounded)(\$)	Growth Related %	Net Total Cost (\$)
Primary Dev. Areas	Build Out (yr)	Secondary					Type of Work	Location of Work	Type	Description	Length (m)	2014 Estimated Capital Cost (\$)	2019 Estimated Capital Cost (\$)				
ANC	6+	A	Garner Road EA	2013			5 structures	Garner Rd Hwy 6 to Glancaster				1,250,000	1,405,000	1,410,000	100	1,410,000	
SCL	11+	A	Master Drainage Plan Area No. 5, 6, 7. City of Stoney Creek	1989		Erosion Control and Channel System Improvements	Lower culvert by 0.4 m - South Service Rd. under w/c #6					163,182	183,417	180,000	100	180,000	
SCL	11+	A	SCUBE - Barton Street	2013		road crossings at existing watercourses	7 structures (3@\$400k, 4@\$750k)	Fruitland to Fifty				4,200,000	4,720,800	4,720,000	100	4,720,000	
SCL	0-5	A	SCUBE Block 1	2017		road crossings at existing watercourses	1 structure	Fruitland to N/S Collector				750,000	843,000	843,000	100	843,000	
SCL	0-5		SCUBE Block 2	2017		road crossings at existing watercourses	2 structures	Jones to Glover				1,500,000	1,686,000	1,690,000	100	1,690,000	
SCM	11+	A	ELFRIDA Secondary Plan major roads xngs	2017		road crossings at existing watercourses	20 culverts (6 small, 6 med, 8 large)	ELFRIDA SP				4,215,000	4,737,660	4,740,000	100	4,740,000	
WAT	11+	A	East West Corridor - North Waterdown Drive	2012		road crossings at existing watercourses	6 culverts (med)	EW2,3,4,7,8,EW9					1,011,600	1,010,000	100	1,010,000	
WAT	11+	A	East West Corridor - North Waterdown Drive	2012		road crossings at existing watercourses	1 structure	EW5					5,000,000	5,000,000	100	5,000,000	
WAT	0-5	A	Parkside Drive EA	2013			2 culverts (med)	Parkside Dr Hwy 6 to Hollybush				337,200	379,013	380,000	100	380,000	
Total Residential												12,415,382	19,966,490	19,973,000	100	19,973,000	

ANC: Ancaster
 BMH: Binbrook / Mount Hope
 HAM: Hamilton Mountain
 SCL: Stoney Creek - Lower
 SCM: Stoney Creek - Mountain
 WAT: Waterdown



APPENDIX G-1: CATEGORY A - OPEN WATERCOURSES: CHANNEL SYSTEM IMPROVEMENTS (IDENTIFIED PROJECTS) NON-RESIDENTIAL

Category			Project Title	Study Year	Drainage Area (ha)	Purpose	SWMF/ Drainage Work					2014 Estimated Capital Cost (\$)	2019 Estimated Capital Cost (\$)	Estimated Total Cost (Rounded)(\$)	Growth Related %	Net Total Cost (\$)
Primary Dev. Areas	Build Out (yr)	Secondary					Type of Work	Location of Work	Type	Description	Length (m)					
ANC	0-5	A	Ancaster Industrial Park - Cormorant Midblock	2013			culvert	Trinity to Tradewind					400,000	400,000	50	200,000
ANC	0-5	A	Ancaster Industrial Park - Cormorant Midblock	2013			channel improvements	Trinity to Tradewind					400,000	400,000	50	200,000
BMH	11+	A	AEGD major roads crossings	2017		road crossings at existing watercourses	40 culverts (12 small, 12 med, 16 large)	AEGD				8,430,000	9,475,320	9,480,000	100	9,480,000
HAM	11+	A	Red Hill Business Park - Dartnall Road	2017			2 culverts (small)	Twenty to Dickenson					400,000	400,000	100	400,000
SCL	11+	A	Master Drainage Plan Area No. 5, 6, 7. City of Stoney Creek	1990			Triple-Culvert replacement - QEW Corridor at w/c #5					1,405,493	1,579,774	1,580,000	100	1,580,000
SCL	11+	A	Master Drainage Plan Area No. 5, 6, 7. City of Stoney Creek	1990			New culvert - North Service Rd. at w/c #5					233,434	262,380	260,000	100	260,000
SCL	11+	A	Creek System Improvement W/C 7	2003			Lower culvert by 0.4 m - South Service Rd. under w/c #6					117,145	131,670	130,000	50	65,000
SCL	11+	A	Master Drainage Plan Area No. 5, 6, 7. City of Stoney Creek	1990			Culvert replacement - QEW Corridor on w/c #6.2					518,783	583,112	580,000	100	580,000
SCL	11+	A	Water Course 5- Master Drainage Plan Area No. 5, 6, 7. City of Stoney Creek	1990	582		channel improvements			Length of channel improvement work	1015	2,305,703	2,591,610	2,590,000	100	2,590,000
SCL	11+	A	Master Drainage Plan Area No. 5, 6, 7. City of Stoney Creek	1990			Lower culvert by 1.6 m - Arvin Ave. on w/c #5					62,477	70,224	70,000	20	14,000
SCL	11+	A	Master Drainage Plan Area No. 5, 6, 7. City of Stoney Creek	1990			Culvert replacement - CNR line on w/c #5					163,556	183,837	180,000	20	36,000
SCL	11+	A	Water Course 6 - Master Drainage Plan Area No. 5, 6, 7. City of Stoney Creek	1990	67		channel improvements			Length of channel improvement work	1077	2,469,333	2,775,530	2,780,000	50	1,390,000
SCL	11+	A	Master Drainage Plan Area No. 5, 6, 7. City of Stoney Creek	1990			Lower culvert by 1.84 m - South Service Rd. under w/c #5					117,145	131,670	130,000	100	130,000
SCL	0-5	A	SCUBE - Barton Street	2017			WC9 channel/enclosure	west property limit of school to 140 m east				700,000	786,800	790,000	50	395,000
SCL	11+	A	SCUBE - NSR	2013			culvert	Green easterly to City limits				750,000	843,000	843,000	100	843,000
WAT	11+	A	Hwy 5/6 Interchange				2 or 3 culverts	Hwy 5/6 and ramp				1,200,000	1,348,800	1,350,000	25	337,500
WAT	11+	A	Highway 6				culvert	Borer's Ck				1,000,000	1,124,000	1,124,000	100	1,124,000
Total Non-Residential												19,473,068	23,087,728	23,087,000	85	19,624,500
Grand Total												31,888,450	43,054,218	43,060,000	92	39,597,500

ANC: Ancaster
 BMH: Binbrook / Mount Hope
 HAM: Hamilton Mountain
 SCL: Stoney Creek - Lower
 SCM: Stoney Creek - Mountain
 WAT: Waterdown



APPENDIX G-1 CATEGORY B: OFF SITE EROSION WORKS NOT IDENTIFIED IN PREVIOUS STUDIES (RESIDENTIAL & NON RESIDENTIAL)

ID #	Primary Development Area	Res/Non-Res	Subwatershed	Watershed	Remarks	Watershed Area ¹	Existing Development Area (ha)		Future Development Area (ha)		Development Fraction	Fraction of Watercourse Assumed to Require Erosion Control ²	Total Length of Downstream Watercourse to Assumed End-Point ³	Length of Erosion Control Works	Cost ⁴	Land Cost	Total Cost	New Development Fraction	Development Related Cost
						A	B	C	D	E	F = 100 X (B+C+D+E) / A	G	H	I = G X H	J	K	L=J+K	M = (D+E) / (B+C+D+E)	L X M
						(ha)	Res. (ha)	Non-Res. (ha)	Res. (ha)	Non-Res. (ha)	(%)		(m)	(m)	(\$)	(\$)	(\$)		(\$)
2	ANC	Non-Res	Big Creek (Outlet #1 & #2 Industrial Park)	Big Creek		271		11.6	5.32	136.83	56.73	0.15	4,988	748	\$1,122,300	\$697,738	\$1,820,038	0.925	\$1,682,721
3	ANC	Res	Big Creek (Spring Valley West and Shaver Neighbourhood)	Big Creek	South of Shaver Neighbourhood	43	35		5.5		94.19	0.20	600	120	\$180,000	\$111,907	\$291,907	0.136	\$39,642
4	ANC	Res	Big Creek (Spring Valley West and Shaver Neighbourhood)	Big Creek		100	70.92		21.48	0.29	92.69	0.20	1,500	300	\$450,000	\$279,767	\$729,767	0.235	\$171,399
5	BMH	Non-Res	Three Mile Creek	Twenty Mile Creek	Part of Airport Business Park and Airport	165		20		24.48	26.96	0.10	1,500	150	\$225,000	\$139,883	\$364,883	0.550	\$200,817
6	ANC	Res	Tiffany Creek	Coote's Paradise	Meadowlands, Garner, Ancaster. A portion of the w/c is lined in a SWMF	165	25		129.84	0.37	94.07	0.20	2,500	500	\$750,000	\$466,278	\$1,216,278	0.839	\$1,020,369
7	ANC	Res	Tiffany Creek	Coote's Paradise	Falkirk West and Bayview Glen Estates	110			11.5	1.76	12.05	0.05	450	23	\$33,750	\$20,982	\$54,732	1.000	\$54,732
8	ANC	Res	Sulphur Creek	Coote's Paradise		1794			15.98		0.89	0.05	500	25	\$62,500	\$46,628	\$109,128	1.000	\$109,128
9	BMH	Res	Binbrook Node B	Welland River	Binbrook Urban area of 200 ha Draining at Node B	300	191.27		100.12	0.5	97.30	0.20	4,500	900	\$1,350,000	\$725,881	\$2,075,881	0.345	\$715,595
11	BMH	Res	Binbrook Node D	Welland River	Three tributaries B7-a,b,c	133			100.26		75.38	0.20	4,100	820	\$1,230,000	\$661,358	\$1,891,358	1.000	\$1,891,358
12	BMH	Res	Binbrook Node G	Twenty Mile Creek (Three Mile, Sinkhole Creek)	Jackson Heights etc	25	15		9.14		96.56	0.20	750	150	\$225,000	\$120,980	\$345,980	0.379	\$130,997
13	BMH	Res	Node of Welland River south of Mount Hope Urban Boundary SWMF # B-10	Welland River	Mount Hope & adjacent areas (including Airport Business Area)-two outlet	220	128.52	20	47.39	4.76	91.21	0.20	1,500	300	\$450,000	\$241,960	\$691,960	0.260	\$179,826
14	BMH	Non-Res	Node of Welland River north of Mount Hope Urban Boundary	Welland River		30				20	66.67	0.15	1,200	180	\$270,000	\$145,176	\$415,176	1.000	\$415,176
15	HAM	Res	Node Downstream of Glanbrook Hills	Twenty Mile Creek (Three Mile, Sinkhole Creek)	Garth Trail, North Glenbrook Industrial Park, Airport Industrial Business Park, part of Binbrook and others	40	20		16.47		91.18	0.20	900	180	\$270,000	\$145,176	\$415,176	0.452	\$187,495

¹To point immediately d/s of future development (start of off-site erosion assessment)

²0.05 - Where Development Fraction is 0 - 25%

0.10 - Where Development Fraction is 26 - 49%

0.15 - Where Development Fraction is 50 - 74%

0.20 - Where Development Fraction is 75 - 100%

³Location where d/s of this point no erosion is deemed to occur from subject development; total drainage area to this point estimated as a maximum of 2X the study watershed area (Column A). Note that the end point may also be set by Hamilton Harbour or La

⁴\$2500/m for Watershed Area > 500 ha

\$1500/m for Watershed Area < 500 ha

Coote's Paradise (Borer's Creek, Spencer Creek, Sulphur Creek, Ancaster Creek, Chedoke Creek, Others)

Hamilton Harbour (Red Hill Creek, Central Business Park)



APPENDIX G-1 CATEGORY B: OFF SITE EROSION WORKS NOT IDENTIFIED IN PREVIOUS STUDIES (RESIDENTIAL & NON RESIDENTIAL)

ID #	Primary Development Area	Res/Non-Res	Subwatershed	Watershed	Remarks	Watershed Area ¹	Existing Development Area (ha)		Future Development Area (ha)		Development Fraction	Fraction of Watercourse Assumed to Require Erosion Control ²	Total Length of Downstream Watercourse to Assumed End-Point ³	Length of Erosion Control Works	Cost ⁴	Land Cost	Total Cost	New Development Fraction	Development Related Cost
						A	B	C	D	E	F = 100 X (B+C+D+E) / A	G	H	I = G X H	J	K	L=J+K	M = (D+E) / (B+C+D+E)	L X M
						(ha)	Res. (ha)	Non-Res. (ha)	Res. (ha)	Non-Res. (ha)	(%)		(m)	(m)	(\$)	(\$)	(\$)		(\$)
16	BMH	Non-Res	Node Downstream of SWMF # R53	Twenty Mile Creek (Three Mile, Sinkhole Creek)		40				36.81	92.03	0.20	850	170	\$255,000	\$137,111	\$392,111	1.000	\$392,111
17	HAM	Non-Res	Node Downstream of SWMF #B 13	Twenty Mile Creek (Three Mile, Sinkhole Creek)		32				19.67	61.47	0.15	600	90	\$135,000	\$72,588	\$207,588	1.000	\$207,588
18	HAM	Non-Res	Node Downstream of SWMF # H 13	Twenty Mile Creek (Three Mile, Sinkhole Creek)		181				63.3	34.97	0.10	2,000	200	\$300,000	\$161,307	\$461,307	1.000	\$461,307
19	HAM	Non-Res	Node Downstream of SWMF # B 14	Twenty Mile Creek (Three Mile, Sinkhole Creek)		58				5.71	9.84	0.05	1,100	55	\$82,500	\$44,359	\$126,859	1.000	\$126,859
20	HAM	Non-Res	Node Downstream of SWMF # B 11 & B 12	Twenty Mile Creek (Three Mile, Sinkhole Creek)		700	282.29		26.2	48.63	51.02	0.15	3,000	450	\$1,125,000	\$725,881	\$1,850,881	0.210	\$387,829
21	BMH	Non-Res	Node Downstream of SWMF # B 15 & 16	Twenty Mile Creek (Three Mile, Sinkhole Creek)		179	100			54.41	86.26	0.20	1,400	280	\$420,000	\$225,830	\$645,830	0.352	\$227,573
22	HAM	Res	Upper Ottawa subwatershed	Hamilton Harbour	Erosion works downstream identified in previous studies	1356	766	308.9	136.28	0.86	89.38	0.20	1,100	220	\$550,000	\$354,875	\$904,875	0.113	\$102,385
23	HAM	Res	Hannon Creek subwatershed	Hamilton Harbour		1070	115.2	357.7	75.95	292.53	78.63	0.20	2,000	400	\$1,000,000	\$645,228	\$1,645,228	0.438	\$720,523
25	SCL	Res	Battlefield Creek	Lake Ontario (Battlefield Creek, SC, WC 0-12)	Nash	300			62.09	1.92	21.34	0.05	1,250	63	\$93,750	\$50,408	\$144,158	1.000	\$144,158
26	SCL	Res	Water Course 0	Lake Ontario (Battlefield Creek, SC, WC 0-12)	WC 0	321	112.9	149.7	1.12	2.98	83.08	0.20	50	10	\$15,000	\$8,065	\$23,065	0.015	\$355
27	SCL	Res	Water Course 1	Lake Ontario (Battlefield Creek, SC, WC 0-12)	WC 1	330	157.5	61	13.09	2.87	71.05	0.15	1,900	285	\$427,500	\$229,862	\$657,362	0.068	\$44,748
28	Water Course 10/12	Non-Res	Fifty Point Industrial Park	Lake Ontario (Battlefield Creek, SC, WC 0-12)	assumed Fruitland-Winona SP land use	20				16.56	82.80	0.20	600	120	\$180,000	\$96,784	\$276,784	1.000	\$276,784

¹To point immediately d/s of future development (start of off-site erosion assessment)

²0.05 - Where Development Fraction is 0 - 25%

0.10 - Where Development Fraction is 26 - 49%

0.15 - Where Development Fraction is 50 - 74%

0.20 - Where Development Fraction is 75 - 100%

³Location where d/s of this point no erosion is deemed to occur from subject development; total drainage area to this point estimated as a maximum of 2X the study watershed area (Column A). Note that the end point may also be set by Hamilton Harbour or La

⁴\$2500/m for Watershed Area > 500 ha

\$1500/m for Watershed Area < 500 ha

Coote's Paradise (Borer's Creek, Spencer Creek, Sulphur Creek, Ancaster Creek, Chedoke Creek, Others)

Hamilton Harbour (Red Hill Creek, Central Business Park)



APPENDIX G-1 CATEGORY B: OFF SITE EROSION WORKS NOT IDENTIFIED IN PREVIOUS STUDIES (RESIDENTIAL & NON RESIDENTIAL)

ID #	Primary Development Area	Res/No n-Res	Subwatershed	Watershed	Remarks	Watershed Area ¹	Existing Development Area (ha)		Future Development Area (ha)		Development Fraction	Fraction of Watercourse Assumed to Require Erosion Control ²	Total Length of Downstream Watercourse to Assumed End-Point ³	Length of Erosion Control Works	Cost ⁴	Land Cost	Total Cost	New Development Fraction	Development Related Cost
						A	B	C	D	E	F = 100 X (B+C+D+E) / A	G	H	I = G X H	J	K	L=J+K	M = (D+E) / (B+C+D+E)	L X M
						(ha)	Res. (ha)	Non-Res. (ha)	Res. (ha)	Non-Res. (ha)	(%)		(m)	(m)	(\$)	(\$)	(\$)		(\$)
29	SCL	Res	Fifty Point Joint Venture	Lake Ontario (Battlefield Creek, SC, WC 0-12)		45	32		1.17	0.19	74.13	0.20	300	60	\$90,000	\$48,392	\$138,392	0.041	\$5,642
30	SCL	Non-Res	Water Course 12	Lake Ontario (Battlefield Creek, SC, WC 0-12)	assumed Fruitland-Winona SP land use	642	75.8	14.1	0.89	24	17.88	0.05	1,350	68	\$168,750	\$108,882	\$277,632	0.217	\$60,199
31	SCL	Res	Water Course 2	Lake Ontario (Battlefield Creek, SC, WC 0-12)	WC 2	283	148	76.8	1.69	0.56	80.23	0.20	1,100	220	\$330,000	\$177,438	\$507,438	0.010	\$5,029
32	SCL	Res	Water Course 3	Lake Ontario (Battlefield Creek, SC, WC 0-12)	WC 3	190	74.4	73.3	4.44	2.44	81.36	0.20	900	180	\$270,000	\$145,176	\$415,176	0.045	\$18,479
33	SCL	Non-Res	Water Course 4	Lake Ontario (Battlefield Creek, SC, WC 0-12)	WC 4	376	133.9	60.9		14	55.53	0.15	800	120	\$180,000	\$96,784	\$276,784	0.067	\$18,558
34	SCL	Res	Water Course 5	Lake Ontario (Battlefield Creek, SC, WC 0-12)	w/c 5.1-1100m, w/c 5.0 2500; assumed FWSP land use	636	121.4	112.9	118.35	7.64	56.65	0.15	3,600	540	\$1,350,000	\$871,057	\$2,221,057	0.350	\$776,683
35	SCL	Res	Water Course 6	Lake Ontario (Battlefield Creek, SC, WC 0-12)	assumed Fruitland-Winona SP land use	100	19	18.1	50.39	11.65	99.14	0.20	1,300	260	\$390,000	\$209,699	\$599,699	0.626	\$375,281
36	SCL	Non-Res	Water Course 7	Lake Ontario (Battlefield Creek, SC, WC 0-12)	assumed Fruitland-Winona SP land use	421	77.2	28.2	25.28	36.2	39.64	0.10	1,000	100	\$150,000	\$80,653	\$230,653	0.368	\$84,975
37	SCL	Non-Res	Water Course 9	Lake Ontario (Battlefield Creek, SC, WC 0-12)	assumed Fruitland-Winona SP land use	579	148.76	51.2	86.41	16.98	52.39	0.15	800	120	\$300,000	\$193,568	\$493,568	0.341	\$168,222
40	SCM	Res	Sinkhole Creek	Twenty Mile Creek (Three Mile, Sinkhole Creek)	Felkirk South and ROPA #9 (Rymal Rd.)	140	63.1		100.13		116.59	0.20	1,200	240	\$360,000	\$193,568	\$553,568	0.613	\$339,575

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⁴\$2500/m for Watershed Area > 500 ha

\$1500/m for Watershed Area < 500 ha

Coote's Paradise (Borer's Creek, Spencer Creek, Sulphur Creek, Ancaster Creek, Chedoke Creek, Others)

Hamilton Harbour (Red Hill Creek, Central Business Park)



APPENDIX G-1 CATEGORY B: OFF SITE EROSION WORKS NOT IDENTIFIED IN PREVIOUS STUDIES (RESIDENTIAL & NON RESIDENTIAL)

ID #	Primary Development Area	Res/Non-Res	Subwatershed	Watershed	Remarks	Watershed Area ¹	Existing Development Area (ha)		Future Development Area (ha)		Development Fraction	Fraction of Watercourse Assumed to Require Erosion Control ²	Total Length of Downstream Watercourse to Assumed End-Point ³	Length of Erosion Control Works	Cost ⁴	Land Cost	Total Cost	New Development Fraction	Development Related Cost
						A	B	C	D	E	F = 100 X (B+C+D+E) / A	G	H	I = G X H	J	K	L=J+K	M = (D+E) / (B+C+D+E)	L X M
						(ha)	Res. (ha)	Non-Res. (ha)	Res. (ha)	Non-Res. (ha)	(%)		(m)	(m)	(\$)	(\$)	(\$)		(\$)
42	WAT	Res	Falcon Creek	Grindstone Creek/ North Shore Watershed	OPA 28 South	48			48		100.00	0.20	1,200	240	\$360,000	\$223,813	\$583,813	1.000	\$583,813
43	WAT	Res	Grindstone Creek SWMF # W7	Grindstone Creek/ North Shore Watershed		45			45		100.00	0.20	900	180	\$270,000	\$167,860	\$437,860	1.000	\$437,860
44	WAT	Res	Grindstone Creek SWMF # W1 to SWMF # W8	Grindstone Creek/ North Shore Watershed	OPA 28 South and Upcountry Estates, Gatesbury, etc.	1011		254.8	108.81		35.97	0.10	2,000	200	\$500,000	\$373,022	\$873,022	0.299	\$261,251
45	WAT	Non-Res	Flamborough Industrial Park SWMF # W14	Grindstone Creek/ North Shore Watershed		45				15	33.33	0.10	900	90	\$135,000	\$83,930	\$218,930	1.000	\$218,930
46	WAT	Res	Indian Creek	Grindstone Creek/ North Shore Watershed	OPA 28 South	14			10.91		77.93	0.20	450	90	\$135,000	\$83,930	\$218,930	1.000	\$218,930
48	OTH	Res	Central Business Subwatershed	Hamilton Harbour	Not in growth area	2400					0.00	0.00		0	\$0	\$0	\$0	0.000	\$0
49	OTH	Res	Chedoke Creek	Hamilton Harbour	Not in growth area	2706					0.00	0.00		0	\$0	\$0	\$0	0.000	\$0
50	OTH	Res	Green Hill subwatershed	Hamilton Harbour	Not in growth area	1225	1102.5				90.00	0.20	0	0	\$0	\$0	\$0	0.000	\$0
51	OTH	Res	Logies Creek	Coote's Paradise	Not in growth area	1217					0.00	0.00		0	\$0	\$0	\$0	0.000	\$0
52	OTH	Res	Lower Spencer Creek	Coote's Paradise	Not in growth area	277					0.00	0.00		0	\$0	\$0	\$0	0.000	\$0
53	OTH	Res	Mid Spencer Creek	Coote's Paradise	Not in growth area	5513					0.00	0.00		0	\$0	\$0	\$0	0.000	\$0
54	OTH	Res	Spring Creek	Coote's Paradise	Not in growth area	1305					0.00	0.00		0	\$0	\$0	\$0	0.000	\$0
55	OTH	Res	Sydenham Creek	Coote's Paradise	Not in growth area	442					0.00	0.00		0	\$0	\$0	\$0	0.000	\$0
Grand Total						27,643.0	4,270.5	1,364.4	1,379.2	863.9	28.50		58,638	9446	\$16,191,050	\$9,613,787	\$25,804,837	52.18	\$13,464,902

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⁴\$2500/m for Watershed Area > 500 ha

\$1500/m for Watershed Area < 500 ha

Coote's Paradise (Borer's Creek, Spencer Creek, Sulphur Creek, Ancaster Creek, Chedoke Creek, Others)

Hamilton Harbour (Red Hill Creek, Central Business Park)



APPENDIX G-1: CATEGORY C - STORMWATER MANAGEMENT (QUALITY AND OR QUANTITY) FACILITIES RESIDENTIAL

Category				Project Title		SWMF/ Drainage Work																				
Primary Dev. Area	Build Out (g)	Secondary	Estimate #	Year	Drainage Area (ha)	Purpose	Type of Work	Location of Work	Type	Description	Total Volume (m3)	Estimated Footprint 4% (ha)	Estimated Footprint 6% (ha)	Study/Draft Plan Footprint (ha)	Footprint (ha)	Land Cost	Estimated Capital Cost (\$)	Estimated Total Cost including Land	Growth Related %	Net Growth Total Associated Cost (\$)	Existing Benefits	Direct Developer Contribution (\$)	Non-Rex Area Fraction Cost (\$)	Net Total Associated Cost (\$)		
ANC	11+	C	7	Garner Neighbourhood Master Drainage Plan - Ancaster	July 1996 Rev. Nov 2003	10.4	MOP addressing drainage related issues for existing and future development	Proposed Quality Facility #1: Extended detention wetland	Between proposed Highway 8 (new interchange corridor) and the existing development	Quality	Storage Capacity =	910	0.42		0.42	775,886	72,800	848,686	100	848,686	-	-	-	-	848,686	
ANC	0-5	C	14	Meadowlands Phase IV		8		Springbrook at Garner	Quality / Quantity	Storage Capacity =	2,110		0.36	0.60	0.60	1,119,066	168,797	1,287,863	100	1,287,863	-	-	-	-	1,287,863	
ANC	11+	C	22	Woodland Manor Preliminary SWM Report	Jul-08	15.3	SWM Plan for proposed urban development	SWMF	Superior Springs Road and Mansfield Drive	Quality / Quantity	Storage Volume =	13,289		0.92	0.92	1,712,172	791,576	2,503,748	100	2,503,748	-	-	-	-	2,503,748	
ANC	11+	C	24	Miller's pond expansion		5		Shawen Road and Garner Road	Quality		3,600	0.20		0.20	373,022	288,000	661,022	100	661,022	-	-	-	-	661,022		
ANC	11+	C	25	Golf Stream Manor		36			Quality / Quantity		25,920	1.44		1.44	2,685,760	1,296,800	3,982,560	100	3,982,560	-	-	-	-	3,982,560		
ANC	11+	R	3	N/A	N/A	31.34	Flood Control	Future Retrofit	Galley Crt & Speers Rd	Quality				0.00	-	443,100	443,100	30	132,930	310,170	-	-	-	-	132,930	
ANC	11+	R	22	N/A	N/A	2.19	Flood Control	Future Retrofit	Harrington Place and Lower's Lane	Quality				0.00	-	422,000	422,000	50	211,000	211,000	-	-	-	-	211,000	
ANC	11+	R	70	Drainage Report - The Meadows	N/A	296.9		Future Retrofit	Hey 403 and Golf Links Rd	Quality				0.00	-	4,135,600	4,135,600	40	1,654,240	2,481,360	-	-	-	-	1,654,240	
ANC	11+	R	71	Drainage Report - The Meadows	N/A	42.51		Future Retrofit	Golf Links Rd and Meadows Blvd	Quality				0.00	-	601,350	601,350	40	240,540	360,810	-	-	-	-	240,540	
ANC	11+	R	72	Drainage Report - The Meadows	N/A	18.03		Future Retrofit	Golf Links Rd and Meadows Blvd	Quality				0.00	-	422,000	422,000	40	168,800	253,200	-	-	-	-	168,800	
BMH	11+	C	24	Celestini	2013	15		SWMF	Birnbrook Rd west of Woodland	Quality / Quantity	Storage Capacity =	9,400		0.90	0.90	1,451,762	635,996	2,087,758	100	2,087,758	-	-	-	-	2,087,758	
BMH	0-5	C	10	Mountainside Functional Services Report	Oct. 2007	100.66	SWM Plan for proposed urban development	SWMF	South west of new Hwy - 6	Quality / Quantity	Storage Volume =	34,698		6.04	5.15	8,307,304	1,647,904	9,955,208	100	9,955,208	-	-	-	-	9,955,208	
BMH	11+	C	21	Master Drainage Plan Update Report - Birnbrook Settlement Area	Oct. 2006	31	additional facility adjacent to the watercourse	SWMF		Quality / Quantity	Storage Capacity =	19,376		1.86	1.86	3,000,308	1,035,058	4,035,366	100	4,035,366	-	-	-	-	4,035,366	
BMH	11+	C	20	Birnbrook Settlement Area	2013	22.72	MacNeilly facility	SWMF	Area draining to the south west near Fletcher Road	Quality / Quantity	Storage Capacity =	19,201		1.36	1.80	2,903,524	1,028,029	3,931,552	100	3,931,552	-	-	-	-	3,931,552	
HAM	11+	C	12	Harmon Creek SWS - North Glenbrook Industrial Business Park MGP	Nov. 2008	10		SWMF	Upper Oage/Tara in tandem with WADGP	Quality / Quantity	Storage volume =	8,817		0.40	0.40	645,228	612,664	1,257,892	100	1,257,892	-	-	-	-	1,257,892	
HAM	0-5	C	24	Meadow and Shelden Neighbourhoods Master Drainage Plan	2011	15.9	SWM Plan for proposed urban development	SWMF	West Strand Stonerchurch Road	Quality / Quantity	Storage Capacity =	12,650		0.95	1.25	2,016,336	1,006,000	3,022,336	100	3,022,336	-	-	-	-	3,022,336	
HAM	11+	C	28	305 Stone Church Road West	2011	33.29	SWM Plan for proposed urban development	SWMF	NE limit of development	Quality / Quantity	Storage volume =	20,382		2.00	2.00	3,221,944	1,475,266	4,697,210	100	4,697,210	-	-	-	-	4,697,210	
HAM	11+	C	29	Miles	2011	42	SWM Plan for proposed urban development	SWMF	NE limit of development	Quality / Quantity	Storage volume =	30,240		2.52	2.52	4,064,933	1,969,600	6,034,533	100	6,034,533	-	-	-	-	6,034,533	
HAM	11+	C	30	St Elizabeth expansion	2013	50	SWM facility expansion	SWMF	expand for new development	Quality / Quantity	Storage volume =	38,000			0.00	-	1,780,000	1,780,000	100	1,780,000	-	-	-	-	1,780,000	
HAM	0-5	C	31	Upper Wallington and Stonerchurch		14		SWMF	SW corner of Upper Wallington and Stonerchurch Rd	Quality / Quantity	Extended Detention Pond	11,263		0.84	1.40	2,258,296	901,059	3,159,356	100	3,159,356	-	-	-	-	3,159,356	
HAM	11+	R	55	Village of Glencazier	Jul. 1990	77.63	Flood Control	Future Retrofit	Twenty Rd and Gault St	Quality		-	3.11		3.11	5,008,901	1,086,650	6,095,551	80	4,876,441	1,219,110	-	-	-	-	4,876,441
SCL	0-5	C	2	SCURE Subwatershed Study (Phase 3)	May-13	26.4	Stormwater management strategy	SWMF	W/C6 south of Barton West	Quality / Quantity	wet pond #3	13,216		1.58	2.64	4,258,502	788,640	5,047,142	100	5,047,142	-	-	-	-	5,047,142	
SCL	0-5	C	3	SCURE Subwatershed Study (Phase 3 - Block 6)	Sep-16	16.4	Stormwater management strategy	SWMF	W/C6-1 south of Barton West	Quality / Quantity	wet pond for 6.0	10,331		0.98	1.64	2,645,433	673,240	3,318,673	100	3,318,673	-	-	-	-	3,318,673	
SCL	0-5	C	31	SCURE Subwatershed Study (Phase 3 - Block 2)	Sep-16	27.6	Stormwater management strategy	SWMF	W/C6-1 south of Barton West	Quality / Quantity	wet pond for 6.1	18,115		1.66	2.76	4,452,070	984,600	5,436,670	100	5,436,670	-	-	-	-	5,436,670	
SCL	0-5	C	12	SCURE Subwatershed Study (Phase 3)	May-13	54	Stormwater management strategy	SWMF	SCURE Central	Quality / Quantity	wet pond #9-2	34,060		3.24	5.40	8,710,572	1,622,400	10,332,972	100	10,332,972	-	-	-	-	10,332,972	
SCL	0-5	C	13	SCURE Subwatershed Study (Phase 3)	May-13	23.1	Stormwater management strategy	SWMF	SCURE Central	Quality / Quantity	wet pond #9-3	14,592		1.39	2.31	3,726,189	843,680	4,569,869	100	4,569,869	-	-	-	-	4,569,869	

ANC: Ancaster
BMH: Birnbrook / Mount Hope
HAM: Hamilton Mountain
SCL: Stony Creek - Lower
SCM: Stony Creek - Mountain
WAT: Waterben



APPENDIX G-1: CATEGORY C - STORMWATER MANAGEMENT (QUALITY AND OR QUANTITY) FACILITIES RESIDENTIAL

Category			# SWM	Project Title	Year	Drainage Area (ha)	Purpose	SWMF Drainage Work												Growth Related %	Net Growth/Total Associated Cost (\$)	Existing Benefits	Direct Developer Contribution (\$)	Non-Res Area Fraction Cost (\$)	Net Total Associated Cost (\$)
Primary Dev. Areas	Build Out (yr)	Secondary						Type of Work	Location of Work	Type	Description	Total Volume (m3)	Estimated Footprint 4% (ha)	Estimated Footprint 6% (ha)	Study/Draft Plan Footprint (ha)	Footprint (ha)	Land Cost	Estimated Capital Cost (\$)	Estimated Total Cost Including Land						
SCL	0-6	C	29	SCURE Subwatershed Study (Phase 3)	May-13	38.8	Stormwater management strategy	SWMF	WCS south of Barton West	Quantity / Quality	wet pond #1	19,417		2.39	3.98	3.98	6,420,014	1,036,680	7,456,694	100	7,456,694	-	-	-	7,456,694
SCL	0-6	C	30	SCURE Subwatershed Study (Phase 3)	May-13	24.5	Stormwater management strategy	SWMF	WCS2 south of Barton West	Quantity / Quality	wet pond #2	12,773		1.47	2.45	2.45	3,952,019	770,920	4,722,939	100	4,722,939	-	-	-	4,722,939
SCL	11+	R	16	Lake Vista			Stormwater quality and associated resource management	Storm outfall retrofit	Lake Vista	Quality	OSS				0.00	-	50,000	50,000	100	50,000	-	-	-	50,000	
SCL	11+	R	18	Stormwater Quality Management Strategy Stony Creek Master Plan	2004	27.2	Stormwater quality and associated resource management	Storm outfall retrofit	BFC, Little League Park, Quakeron Rd.	Quality	Wetland	2,413			0.00	-	193,040	193,040	100	193,040	-	-	-	193,040	
SCL	11+	R	19	Stormwater Quality Management Strategy Stony Creek Master Plan	2004	33	Stormwater quality and associated resource management	Storm outfall retrofit	BFC, Lake Ave. Park, Huckleberry Dr.	Quality	Wetland	2,562			0.00	-	206,560	206,560	100	206,560	-	-	-	206,560	
SCL	11+	R	20	Stormwater Quality Management Strategy Stony Creek Master Plan	2004	77	Stormwater quality and associated resource management	Storm outfall retrofit	North of Barton St.	Quality	Wetland	6,724			0.00	-	528,960	528,960	100	528,960	-	-	-	528,960	
SCL	11+	R	21	Stormwater Quality Management Strategy Stony Creek Master Plan	2004	20.5	Stormwater quality and associated resource management	Storm outfall retrofit	Lake Avenue, Warrington St.	Quality	Wetland	1,923			0.00	-	153,840	153,840	100	153,840	-	-	-	153,840	
SCM	0-6	C	10	Summit Park - ROP# 9		83.9	MOP addressing drainage related issues for future development	Proposed wetland/wetpond #9	West side of Seelye Road	Quantity / Quality		52,577			0.00	-	3,320,000	3,320,000	100	3,320,000	-	-	-	3,320,000	
SCM	0-6	C	18	Future Planned Residential Development		42	waterly portion	SWMF		Quantity / Quality		29,890			0.00	-	3,630,000	3,630,000	100	3,630,000	-	-	-	3,630,000	
SCM	11+	C	21	Davis Cr. SWS - Nash Nhd		21		SWMF	North limit of First Road W. at east side of lands	Quantity / Quality	Extended Detention Pond	15,395		1.26	1.26	2,032,467	875,794	2,908,261	100	2,908,261	-	-	-	2,908,261	
SCM	0-6	C	22	Davis Cr. SWS - Nash Nhd		15		SWMF	North limit of First Road W. at east side	Quantity / Quality	Extended Detention Pond	11,425		0.90	0.90	1,451,762	716,996	2,168,758	100	2,168,758	-	-	-	2,168,758	
SCM	11+	C	2	Davis Cr. SWS - Nash Nhd		22.85			West pond	Quantity / Quality	Extended Detention Pond	22,394		1.66	1.66	2,677,694	1,435,757	4,113,451	100	4,113,451	-	-	-	4,113,451	
SCM	11+	C	6	Montgomery Creek Nash Catchment		22.49				Quantity / Quality		17,436	0.90	1.35	1.35	2,177,643	957,429	3,135,072	100	3,135,072	-	-	-	3,135,072	
SCM	0-6	C	17	Community Functional SWM	Nov. 2008	30	Functional Service Plan for proposed urban development	SWMF	SW corner Mud St. and Upper Commercial PKWY	Quantity / Quality	Storage volume =	20,300		1.80	1.87	1.87	3,016,439	1,071,992	4,088,431	100	4,088,431	-	-	-	4,088,431
SCM	11+	R	65	N/A		N/A		Future Records	Hay St and Highland Rd	Quantity / Quality				0.00	-	422,000	422,000	30	126,600	295,400	-	-	-	126,600	
SCM	11+	R	67	Deerfield Estate Phase 1	Apr. 1991	19.6		Future Records	Bjornal Rd E and Whitehead Rd	Quantity / Quality				0.00	-	422,000	422,000	50	211,000	211,000	-	-	-	211,000	
SCM	11+	R	69	Heritage Green Valley Park Stage II	Sept. 1990	83.9		Future Records	Winter Drive and Paramount Drive	Quantity / Quality				0.00	-	1,160,500	1,160,500	50	580,250	580,250	-	-	-	580,250	
WAT	0-6	C	1	Mtview Heights/Waterdown Bay Phase 2	Jul-13	12.43	To guide future development and management of the South Waterdown lands	SWMF	Grindstone Creek - East Tributary (St. Peter's)	Quantity / Quality	Storage Capacity =	13,509			0.00	-	3,400,000	3,400,000	100	3,400,000	-	-	-	3,400,000	
WAT	0-6	C	3	Mtview Heights/Waterdown Bay Phase 2	Jul-13	8.89	To guide future development and management of the South Waterdown lands	SWMF	Grindstone Creek - East Tributary (St. Peter's)	Quantity / Quality	Storage Capacity =	10,037			0.00	-	4,000,000	4,000,000	100	4,000,000	-	-	-	4,000,000	
WAT	0-6	C	4	Mtview Heights	Jul-13	41.08	To guide future development and management of the South Waterdown lands	SWMF	Grindstone Creek - South west Tributary 2	Quantity / Quality	Storage Capacity =	53,288	2.46	2.98	2.60	4,849,288	2,991,510	7,840,798	100	7,840,798	-	-	-	7,840,798	
WAT	11+	C	5	Mtview Heights	Jul-13	12.71	To guide future development and management of the South Waterdown lands	SWMF	East side of Waterdown Bay	Quantity / Quality	Storage Capacity =	28,055	0.76	1.56	1.56	2,909,573	1,582,188	4,491,761	100	4,491,761	-	-	-	4,491,761	
WAT	11+	C	6	Mtview Heights	Jul-13	5.66	To guide future development and management of the South Waterdown lands	SWMF	Salem Property	Quantity / Quality	Storage Capacity =	16,754	0.34	0.34	0.34	633,392	930,160	1,563,551	100	1,563,551	-	-	-	1,563,551	
WAT	0-6	C	19	Waterdown North Master Drainage Plan	Feb. 2007	9.7	Assess proposed expansion for the urban settlement area of Waterdown	SWMF for quality and erosion control	Along Bower's Creek, NW of Centre Road and Parkside Road	Quality/Erosion	Storage Capacity =	5,918			1.75	1.75	756,744	473,448	1,230,192	100	1,230,192	-	-	-	1,230,192
U	11+	C	U1	Undertaken			provisional item for undertaken SWM works	open		Quantity / Quality						-	5,000,000	5,000,000	100	5,000,000	-	-	-	5,000,000	
U	11+	C	U2	Undertaken			to include provision for LID infrastructure cost recovery	open		Quantity / Quality						-	1,500,000	1,500,000	100	1,500,000	-	-	-	1,500,000	
U	11+	C	U3	Frontage Costs			estimate of cost of frontage costs for 30 residential SWM facilities (Retrofits and Undertaken facilities excluded)	open		Quantity / Quality						-	6,840,000	6,840,000	100	6,840,000	-	-	-	6,840,000	
U	11+	C	U4	Land Footprint Contingency			estimate that 10 facilities will exceed the estimated land forfeited by 20%	open		Quantity / Quality						3,500,000	3,500,000	100	3,500,000	-	-	-	3,500,000		
U	11+	C	U5	Facility Undertaken Volume Contingency			estimate that 170 facilities will exceed the estimated volume by 50%	open		Quantity / Quality							3,150,000	3,150,000	100	3,150,000	-	-	-	3,150,000	
U	11+	C	U6	Facility Undertaken Volume Contingency			estimate that 170 facilities will encounter unanticipated 3000 m3 rock	open		Quantity / Quality							2,736,000	2,736,000	100	2,736,000	-	-	-	2,736,000	
U	11+	C	U7	Undertaken - Within Combined Sewershed			under study - estimate 3 projects will result in SWM facilities @ \$2M each	combined sewer shed		Quantity / Quality							6,000,000	6,000,000	100	6,000,000	-	-	-	6,000,000	
Total Residential												682,978					97,714,240	67,938,584	180,602,824	96.71	174,086,524	5,922,306	0	1,022,108	173,058,417



APPENDIX G-1: CATEGORY C - STORMWATER MANAGEMENT (QUALITY AND OR QUANTITY FACILITIES) NON-RESIDENTIAL - NOTE: FOR INFORMATION ONLY - NON-RES FACILITIES NOT INCLUDED IN DC CHARGE

Primary Dev. Areas	Category		SWMF	Project Title	Year	Drainage Area (ha)	Purpose	SWMF/ Drainage Work		Type	Description	Total Volume (m3)	Estimated Footprint (ha)	Estimated Footprint (ha)	Study/Drain Plan Footprint (ha)	Footprint (ha)	Land Cost (\$)	Estimated Capital Cost (\$)	Estimated Total Cost Including Land	Growth Related %	Net Growth/Total Associated Cost (\$)	Existing Benefits (\$)	Direct Developer Contribution (\$)	Residential Area Fraction Cost (\$)	Net Total Associated Cost (\$)			
	Build Out (gr)	Secondary						Type of Work	Location of Work																			
ANC	11+	C	11	Ancoaster Industrial Park, Stormwater Detention Facilities (Area No. 1, 2 and 3)	July 1990	8.2			Detention Pond 6A	Quantity	final drainage area to be determined	2,187	0.33			0.33	611,756	174,929	786,685	0	-	-	-	786,685	-	-		
ANC	11+	C	23	Trustwood Industrial Park west facility	Dec-07	30	Functional Servicing Report Industrial	SWMF	west of Shaver	Quality / Quantity	final drainage area to be determined	21,600	1.80	3.00	3.00	5,595,332	1,124,000	6,719,332	0	-	-	-	-	6,719,332	-	-		
ANC	11+	C	27	Trustwood Industrial Park west facility		19	Functional Servicing Report Industrial	SWMF	west of Shaver	Quality / Quantity	final drainage area to be determined	5,185	1.14	1.14	1.14	2,126,226	414,763	2,540,990	0	-	-	-	-	2,540,990	-	-		
BMH	11+	C	9	Future Planned Non-Residential Development		25		SWMF		Quality / Quantity	Storage Capacity =	6,667	1.50	1.50	1.50	2,419,603	526,660	2,946,263	0	-	-	-	-	2,946,263	-	-		
BMH	11+	C	11	Future Planned Non-Residential Development		36		SWMF		Quality / Quantity	Storage Capacity =	9,600	2.16	2.16	2.16	3,484,229	643,990	4,128,219	0	-	-	-	-	4,128,219	-	-		
BMH	11+	C	12	Future Planned Non-Residential Development		20		SWMF		Quality / Quantity	Storage Capacity =	5,333	1.20	1.20	1.20	1,935,683	426,656	2,362,339	0	-	-	-	-	2,362,339	-	-		
BMH	11+	C	13	Future Planned Non-Residential Development		26		SWMF		Quality / Quantity	Storage Capacity =	6,933	1.56	1.56	1.56	2,516,387	537,326	3,053,714	0	-	-	-	-	3,053,714	-	-		
BMH	11+	C	15	Future Planned Non-Residential Development		40			dry pond	Quantity	Storage Capacity =	10,666	1.60		1.60	2,580,910	686,656	3,267,566	0	-	-	-	-	3,267,566	-	-		
BMH	11+	C	16	Future Planned Non-Residential Development		15			dry pond	Quantity	Storage Capacity =	4,000	0.60		0.60	967,841	319,992	1,287,833	0	-	-	-	-	1,287,833	-	-		
BMH	11+	R	53	Greater Hamilton Airport Business Park	Oct. 1991	11.65	Quality control facility		Hey 6 & Dickinson Rd W	Quality						0.00	-	422,000	422,000	0	-	-	-	422,000	-	-		
HAM	11+	C	11	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	108.7	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	HC3	Quality / Quantity	Flood Control Volume =	59,291	6.52	4.10	4.10	6,613,582	2,631,658	9,245,240	0	-	-	-	-	9,245,240	651,896	(651,896)		
HAM	11+	C	13	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	38	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	TM3	Quality / Quantity	Flood Control Volume =	19,367	2.16	1.85	1.85	2,984,177	1,034,270	4,018,448	0	-	-	-	-	4,018,448	-	-		
HAM	11+	C	14	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	46.3	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	HC6	Quality / Quantity	Flood Control Volume =	23,889	2.78	2.09	2.09	3,371,314	1,215,554	4,586,868	0	-	-	-	-	4,586,868	-	-		
HAM	11+	C	15	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	71.3	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	HC7	Quality / Quantity	Flood Control Volume =	40,430	4.28	3.11	3.11	5,016,644	1,877,214	6,893,858	0	-	-	-	-	6,893,858	-	-		
HAM	11+	C	16	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	21.6	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	HC9	Quality / Quantity	Flood Control Volume =	18,647	1.30	2.00	2.00	3,226,138	1,005,874	4,232,012	0	-	-	-	-	4,232,012	-	-		
HAM	11+	C	17	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	14.1	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	HC9	Quality / Quantity	Flood Control Volume =	12,503	0.85	1.54	1.54	2,484,126	760,136	3,244,262	0	-	-	-	-	3,244,262	-	-		
HAM	11+	C	18	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	19.2	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	HC12	Quality / Quantity	Flood Control Volume =	12,775	1.15	1.60	1.60	2,580,910	770,995	3,351,905	0	-	-	-	-	3,351,905	-	-		
HAM	11+	C	20	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	40.7	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	HC14	Quality / Quantity	Flood Control Volume =	30,739	2.44	2.72	2.72	4,387,547	1,489,542	5,877,090	0	-	-	-	-	5,877,090	-	-		
HAM	11+	C	21	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	16.6	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	TM1a	Quality / Quantity	Flood Control Volume =	7,586	1.00	0.75	0.75	1,209,802	563,422	1,773,224	0	-	-	-	-	1,773,224	-	-		
HAM	11+	C	22	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	16.6	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	TM1b	Quality / Quantity	Flood Control Volume =	7,586	1.00	0.75	0.75	1,209,802	563,422	1,773,224	0	-	-	-	-	1,773,224	-	-		
HAM	11+	C	23	Hannon Creek SWS - North Gladbrook Industrial Business Park MGP	Mar-09	35.5	Develop a Master Drainage Plan for the Hannon Creek Subwatershed	SWMF	TM2	Quality / Quantity	Flood Control Volume =	18,508	2.13	1.78	1.78	2,871,262	1,000,317	3,871,580	0	-	-	-	-	3,871,580	-	-		
SCL	11+	C	10	Stormwater Quality Management Strategy, City of Stony Creek - Master Plan	2004	63	Stormwater quality and associated resource management	Proposed SWMF/Quality	Area F/D, S.W. of Lewis & S. Jordan Rd.	Quality / Quantity	Wetland	17,897	3.78	3.78	3.78	6,097,400	975,863	7,073,263	0	-	-	-	-	7,073,263	-	-		
SCL	11+	C	17	SCBRC Subwatershed Study (Phase 3)	May-13	11.8	Stormwater management strategy	SWMF	Filly Creek west	SCBRC Quality / Quantity	west pond #12-1	8,969	0.71	0.71	0.71	1,142,053	618,760	1,760,813	0	-	-	-	-	1,760,813	-	-		
SCL	0-6	C	23	SCBRC Subwatershed Study (Phase 3)	May-13	14.5	Stormwater management strategy	SWMF	Filly Creek west	SCBRC Quality / Quantity	west pond #12-2	11,013	0.87	0.87	0.87	1,403,370	700,520	2,103,890	0	-	-	-	-	2,103,890	-	-		
SCL	11+	R	82	Glover Industrial Park Phase 2B	Jan. 1999	2.05	Flood Control	Future Retrols	Avon Av. / Glover Rd	Quality						0.00	-	422,000	422,000	0	-	-	337,600	84,400	-	-		
SCM	0-6	C	19	Future Planned Industrial Development		14	westerly portion			Quality / Quantity	to be determined	10,080	0.84	0.84	0.84	1,354,978	663,200	2,018,178	0	-	-	-	-	2,018,178	-	-		
WAT	11+	C	12	Claggs Industrial Park		60	Quality only	SWMF		Quality / Quantity	Storage Capacity =	21,100	3.60	3.60	3.60	6,714,399	1,103,984	7,818,383	0	-	-	-	-	7,818,383	-	-		
WAT	11+	R	35	Tech Park	Feb. 1994	15.68	Quality and Flood Control	Future Retrols	Hey 6 & Hey 5	Quality / Quantity						0.00	-	422,000	422,000	0	-	-	337,600	84,400	-	-		
U	11+	C	UNK	Undertaken			provisional item for undertaken non-res SWMF works with residential component		open	Quality / Quantity						0.00	-	10,000,000	10,000,000	0	-	-	-	10,000,000	-	-		
Total Non-Residential												392,538											0	2,693,378	105,307,800	651,896	(651,896)	
Grand Total												1,075,517											60.44	174,080,524	8,615,678	105,307,800	1,674,003	172,406,521

ANC: Ancoaster
BMH: Brook / Mount Hope
HAM: Hamilton Mountain
SCL: Stony Creek - Lower
SCM: Stony Creek - Mountain
WAT: Waterdown



Storm Sewer Over-Sizing 1500 mm	400	695	278000	366960
Storm Sewer Over-Sizing 1650 mm	1000	1110	1110000	1465200
Storm Sewer Over-Sizing 1800 mm	300	1630	489000	645480
				2477640

\$ 183,480.00 \$ 183,480.00
\$ 732,600.00 \$ 732,600.00
\$ 322,740.00 \$ 322,740.00

Jerome

Storm sewer servicing into storm water management pond H-31

Description	Length in (m) or Quantity	Rate	City Contribution	City Contribution Incl Overhead
Storm Sewer Over-Sizing 1500 mm	200	695	139000	183480

\$ 91,740.00 \$ 91,740.00

Mewburn

1500 Diam. To Pond HAM#24

Description	Length in (m) or Quantity	Rate	City Contribution	City Contribution Incl Overhead
Storm Sewer Over-Sizing 1500 mm	350	695	243250	321090

\$ 160,545.00 \$ 160,545.00

Nash Neighbourhood

North/South, East/West Street abutting Neighbourhood Park

Description	Length in (m) or Quantity	Rate	City Contribution	City Contribution Incl Overhead
Storm Sewer Over-Sizing 1650 mm	150	1110	166500	219780
Storm Sewer Over-Sizing 1800 mm	200	1630	326000	430320

\$ 109,890.00 \$ 109,890.00
\$ 215,160.00 \$ 215,160.00



Sheldon

North/South mid-block collector road opposite Matthew Street to Stone Church Road

Description	Length in (m) or Quantity	Rate	City Contribution	City Contribution Incl Overhead			
Storm Sewer Over-Sizing 1350 mm	300	313	93900	123948	\$	61,974.00	\$ 61,974.00
Storm Sewer Over-Sizing 1650 mm	350	1110	388500	512820	\$	256,410.00	\$ 256,410.00
				636768			
Total by Period						\$2,784,639.00	\$2,784,639.00
Secondary Plan Anticipated Oversizing Sub-total							\$5,569,278.00

APPENDIX G-1: CATEGORY D2 -STORM SEWERS - NEIGHBOURHOD STORM OUTLETS (AS PER APPROVED STUDIES)

Description		City Capital Cost Estimate	City Contribution				
Nebo Rd: Twenty to 400 m s of Rymal (NON-RES)	1	180000	180000	\$	180,000.00		
Parkside Dr storm sewer project (NON-RES)	1	500000	500000	\$	500,000.00		
Roxborough Nhd Storm Outlet (RES)	1	950000	950000	\$	950,000.00		
Airport Road Marion to Mountaingate (RES/NON-RES)	1	1368000	1368000	\$	1,368,000.00		
Swayze Nhd Storm Outlet (RES)	1	2600000	2600000	\$	2,600,000.00		
3 Unidentified Projects in Combined Watershed (RES)	3	1000000	3000000	\$	2,000,000.00	\$	1,000,000.00
Total by Period					\$7,598,000.00		\$1,000,000.00
Neighbourhood Storm Outlet Sub-total							\$8,598,000.00
STORM SEWERS - Oversizing and Outlets - Total							\$18,282,709.24



APPENDIX G-1 - CATEGORY E - CULVERTS AND BRIDGES NOT PREVIOUSLY IDENTIFIED IN CATEGORY A

Ref: Hamilton Development Charges -Transportation

24 new

Item Number	Road Project Description	From	To	Improvment	Length km	Benefit to Growth % (Roads)	Number of Culverts/Bridges > 1m ² end area	Replacement /Widening/ New	Identified in Category "A"	Small @ \$84,300 1-4m ²	Medium @ \$168,600 4-8m ²	Large @ \$337,200 >8m ²	Cost (2019\$)	Benefit to Growth % (SWM)	Cost
AEGD Projects															
1	Airport Road	Upper James Street	Glancaster Road	2r-4u	2.84	60	3	Widening		3			\$252,900	60	\$151,740
2	Airport Road	Butter Road	Glancaster Road	2r-4u	0.86	85	0	Widening		0			\$0	85	\$0
3	Airport Service Road	Glancaster	Airport Road	4u	1.93	100	0	New		0			\$0	100	\$0
4	Book Road	Fiddler's Green Road	Highway 6	2r-4u	0.99	85	1	Widening		1			\$84,300	85	\$71,655
5	Book Road	Highway 6	Southcote Road	2r-4u	1.11	85	1	Widening		1			\$84,300	85	\$71,655
6	Book Road	Highway 6	Southcote Road	4u-6u	1.11	85	0	Widening		0			\$0	85	\$0
7	Book Road E	Collector 2W	Glancaster Road	2r-2u	0.59	85	0	Widening		0			\$0	85	\$0
8	Butter Road	Fiddler's Green Road	Glancaster Road	2r-4u	3.39	85	0	Widening		0			\$0	85	\$0
9	Carlisle Road East	Fiddler's Green Road	Glancaster Road	2r-4u	1.05	85	0	Widening		0			\$0	85	\$0
10	Collector Road 10N	Garner Road	Smith Road	2u	0.83	100	2	New (Cat A)	2				\$0	100	\$0
11	Collector Road 10N	Smith Road	Collector Road 2W	2u	0.65	100	1	New (Cat A)	1				\$0	100	\$0
12	Collector Road 1E	Collector 6N	Dickenson Road	2u	0.76	100	5	New (Cat A)	5				\$0	100	\$0
13	Collector Road 1N	Southcote Road	Collector Road 2E	2u	2.06	100	5	New (Cat A)	5				\$0	100	\$0
14	Collector Road 2E	Collector Road 1N	Airport Boundary	2u	0.47	100	0	New (Cat A)	0				\$0	100	\$0
15	Collector Road 2W	Garner Road	Collector Road 10N	2u	0.27	100	1	New (Cat A)	1				\$0	100	\$0
16	Collector Road 2W	Collector Road 10N	Dickenson Road extension	2u	1.35	100	2	New (Cat A)	2				\$0	100	\$0
17	Collector Road 6E	Collector 6N	Dickenson Road	4u	0.71	100	2	New (Cat A)	2				\$0	100	\$0
18	Collector Road 6N	Glancaster Road	Collector Road 6E	4u	1.93	100	3	New (Cat A)	3				\$0	100	\$0
19	Collector Road 6N	Collector Road 6E	Collector Road 7E	4u	2.56	100	1	New (Cat A)	1				\$0	100	\$0
20	Collector Road 7E	Dickenson Road	Collector 6N	2u	0.49	100	2	New (Cat A)	2				\$0	100	\$0
21	Collector Road 7E	Collector 6N	Upper James Street	4u	0.58	100	1	New (Cat A)	1				\$0	100	\$0
22	Collector Road 7N	Book Road	Southcote Road	2u	0.91	100	1	New (Cat A)	1				\$0	100	\$0
23	Collector Road 7N	Southcote Road	Collector Road 2W	2u	0.89	100	1	New (Cat A)	1				\$0	100	\$0
24	Collector Road 12S	Collector 4E	Collector 5E	2u	0.35	100	1	New (Cat A)	1				\$0	100	\$0
25	Collector Road 12S	Collector 3E	Collector 4E	2u	0.35	100	2	New (Cat A)	2				\$0	100	\$0
26	Collector Road 1S	Fiddler's Green Road	Collector Road 9W	2u	0.41	100	1	New (Cat A)	1				\$0	100	\$0
27	Collector Road 2N	Collector Road 7N	Smith Road	2u	0.64	100	0	New (Cat A)	0				\$0	100	\$0
28	Collector Road 2S	Fiddler's Green Road	Collector Road 9W	2u	0.41	100	0	New (Cat A)	0				\$0	100	\$0
29	Collector Road 3E	Collector 12S	White Church Road	2u	0.2	100	0	New (Cat A)	0				\$0	100	\$0
30	Collector Road 3S	Collector 6W	Southcote Road	2u	0.52	100	1	New (Cat A)	1				\$0	100	\$0
31	Collector Road 4E	Collector 12S	White Church Road	2u	0.18	100	0	New (Cat A)	0				\$0	100	\$0
32	Collector Road 5E	Collector 12S	White Church Road	2u	0.18	100	1	New (Cat A)	1				\$0	100	\$0
33	Collector Road 5N	Fiddler's Green Road	Collector Road 8W	2u	0.84	100	0	New (Cat A)	0				\$0	100	\$0
34	Collector Road 6S	Glancaster Road (north)	Airport Road	2u	0.92	100	0	New (Cat A)	0				\$0	100	\$0
35	Collector Road 6S	Airport Road	Glancaster Road (south)	2u	0.4	100	1	New (Cat A)	1				\$0	100	\$0
36	Collector Road 6W	Collector 3S	Butter Road	2u	0.52	100	0	New (Cat A)	0				\$0	100	\$0



APPENDIX G-1 - CATEGORY E - CULVERTS AND BRIDGES NOT PREVIOUSLY IDENTIFIED IN CATEGORY A

Ref: Hamilton Development Charges -Transportation

24 new

Item Number	Road Project Description	From	To	Improvement	Length km	Benefit to Growth % (Roads)	Number of Culverts/Bridges > 1m² end area	Replacement /Widening/ New	Identified in Category "A"	Small @ \$84,300 1-4m²	Medium @ \$168,600 4-8m²	Large @ \$337,200 >8m²	Cost (2019\$)	Benefit to Growth % (SWM)	Cost
37	Collector Road 7S	Fiddler's Green Road	Collector 9W	2u	0.4	100	1	New (Cat A)	1				\$0	100	\$0
38	Collector Road 8S	Fiddler's Green Road	Collector 9W	2u	0.41	100	1	New (Cat A)	1				\$0	100	\$0
39	Collector Road 8W	Garner Road	Collector 5N	2u	1.36	100	0	New (Cat A)	0				\$0	100	\$0
40	Collector Road 9W	Garner Road	Carluka Road	2u	5.9	100	4	New (Cat A)	4				\$0	100	\$0
41	Dickenson Road	Glancaster Road	Upper James Street	2r-4u	2.9	85	8	Widening		7		1	\$927,300	85	\$788,205
42	Dickenson Road extension	Southcote Road	Smith Road	4u	0.42	100	1	New		1			\$84,300	100	\$84,300
43	Dickenson Road	Southcote Road	Smith Road	2r-4u	0.42	100	0	Widening					\$0	100	\$0
44	Dickenson Road extension	Smith Road	Glancaster Road	4u	0.8	100	0	New					\$0	100	\$0
45	Dickenson Road East	Upper James Street	w/o Nebo Road	2r-2u	4.6	60	0	Widening		0			\$0	60	\$0
46	Garner Road	w/o Southcote	e/o Glancaster	2r-5u	2.98	85	2	Widening		2			\$168,600	85	\$143,310
47	Garner Road	e/o Fiddler's Green Road	w/o Southcote Road	2r-4u	2.02	85	1	Widening		1			\$84,300	85	\$71,655
48	Garth Street extension	Twenty Road	Dickenson Road	5u	1.5	100	2	New		2			\$168,600	100	\$168,600
49	Garth Street extension	Dickenson Road	Collector 2E	5u	0.62	100	1	New		1			\$84,300	100	\$84,300
50	Glancaster Road	Collector 1N	Airport Boundary	2r-2u	0.49	85	0	Widening		0			\$0	85	\$0
51	Glancaster Road	Dickenson Road extension	Collector 1N	2r-4u	0.37	85	0	Widening		0			\$0	85	\$0
52	Glancaster Road	Garner Road	Dickenson Road	2r-4u	2.46	85	4	Widening		4			\$337,200	85	\$286,620
53	Smith Road	Dickenson Road extension	Collector 1N	2r-4u	0.65	85	0	Widening					\$0	85	\$0
54	Smith Road	Garner Road	Dickenson Road extension	2u	1.57	100	1	New		1			\$84,300	100	\$84,300
55	Smith Road	Collector 1N	Airport Boundary	2r-2u	0.35	100	0	Widening					\$0	100	\$0
56	Smith Road extension	Hydro corridor north crossing		2u	0.26	100	0	New					\$0	100	\$0
57	Southcote Road	Garner	Twenty Road extension	2r-4u	0.97	85	0	Widening					\$0	85	\$0
58	Southcote Road	Twenty Road extension	Book Road	2r-4u	0.97	85	0	Widening					\$0	85	\$0
59	Twenty Road	Glancaster Road	Aldercress Avenue	2r-4u	3.08	85	9	Widening		9			\$758,700	85	\$644,895
60	Twenty Road extension	Southcote Road	Glancaster Road	4u	1.86	100	2	New		2			\$168,600	100	\$168,600
61	Fiddler's Green Road	Garner Road	Carluka Road	2r-4u	6.07	85	7	Widening		7			\$590,100	85	\$501,585
62	Glancaster Road	Butter Road	White Church Road	2r-4u	2.31	85	2	Widening		2			\$168,600	85	\$143,310
63	Southcote Road	Book Road	Collector 1N	2r-4u	0.65	85	0	Widening		0			\$0	85	\$0
64	Southcote Road	Airport Boundary	Butter Road	2u	0.81	100	0	Replacement		0			\$0	100	\$0
65	Upper James Street	Ardelea Avenue	Homestead Drive	4u-6u	4.69	85	6	Widening		5	1		\$590,100	85	\$501,585
66	White Church Road	Glancaster Road	Highway 6	2r-4u	2.31	85	1	Widening		1			\$84,300	85	\$71,655
67	Upper James Street	Malton	Highway 6	4r-5u NBR	7	85	0	Widening					\$0	85	\$0
SMATS Projects															
68	West 5th Street	Rymal Road	Stone Church Road	2r-3u	1	60	0	New					\$0	60	\$0
69	Garth Street	Rymal Road	Stone Church Road	2r-4u	1	85	0	Widening					\$0	85	\$0
70	Rymal Road	Glancaster Road	Garth Street	2r-5u	1.3	85	1	Widening				1	\$337,200	85	\$286,620
71	Rymal Road	Fletcher Road	Upper Centennial	2r-5u	2.49	85	1	Replacement				1	\$337,200	85	\$286,620
72	Rymal Road	Upper Wentworth	West of Dartnall	3r-3u	3.29	85	0	Widening					\$0	85	\$0



APPENDIX G-1 - CATEGORY E - CULVERTS AND BRIDGES NOT PREVIOUSLY IDENTIFIED IN CATEGORY A

Ref: Hamilton Development Charges -Transportation

24 new

Item Number	Road Project Description	From	To	Improvement	Length km	Benefit to Growth % (Roads)	Number of Culverts/Bridges > 1m² end area	Replacement /Widening/ New	Identified in Category "A"	Small @\$84,300 1-4m²	Medium @\$168,600 4-8m²	Large @\$337,200 >8m²	Cost (2019\$)	Benefit to Growth % (SWM)	Cost
73	Rymal Road	Upper James Street	Upper Wellington Street	2r-5u	0.87	85	0	Widening					\$0	85	\$0
74	Rymal Road	Upper Wellington Street	Upper Wentworth Street	2r-5u	0.86	85	0	Widening					\$0	85	\$0
75	Upper Wellington Street	Rymal Road	Stone Church Road	2u-4u	1	60	0	Widening					\$0	60	\$0
SCUBE Projects															
76	Anvin Avenue	McNeilly	Lewis Road	2u	0.8	100	0	New					\$0	100	\$0
77	Anvin Avenue	Jones Road	existing east end	2u	0.5	100	0	New					\$0	100	\$0
78	Anvin Avenue	McNeilly	existing west end	2u	0.4	100	1	New (Cat A)	1				\$0	100	\$0
79	SCUBE Central (east-west collector)	McNeilly Road	eastern boundary collector	2u	1.47	100	0	New					\$0	100	\$0
80	SCUBE Central (north-south collector)	Highway 8	Anvin Road extension	2u	0.48	100	0	New					\$0	100	\$0
81	SCUBE Central (north-south collector)	Barton Street	Highway 8	2u	0.66	100	0	New					\$0	100	\$0
82	SCUBE West (Block 1) (east-west collector)	Fruitland Road	north-south collector	2u	1.36	100	1	New (Cat A)	1				\$0	100	\$0
83	SCUBE West (Block 1) (north-south collector)	Barton Street	Highway 8	2u	0.76	100	0	New					\$0	100	\$0
Ancaster Industrial Park and TMP Projects															
84	Ancaster New E/W Road (Trinity @ Wilson Development)	Tradewind/ Cormorant	Trinity Road	2u	0.81	100	1	New (Cat A)	1				\$0	100	\$0
85	Garner Road / Wilson St / Hwy 2	Fiddler's Green Road	Hwy 2	2r-4r	3.5	85	0	Widening					\$0	85	\$0
86	Golf Links Rd intersection improvements (Martindale, Cloverleaf)			Int	--	85	0	Widening					\$0	85	\$0
87	Golf Links Road	McNiven Road	Kitty Murray Lane	2r-3u	0.8	85	0	Widening					\$0	85	\$0
88	Jerseyville Road	Shaver Road	Wilson Street	2r-3u	3.10	60	0	Widening					\$0	60	\$0
89	Springbrook Avenue	Regan Drive	Garner Road	2r-2u	0.69	85	0	Widening					\$0	85	\$0
90	Trinity Road	1km S. of Wilson	Hwy 403	2r-4u	2.2	85	2	Widening				2	\$674,400	85	\$573,240
91	Shaver Road	Trustwood	Garner Road	2r-2u	1.00	85	0	Widening					\$0	85	\$0
92	Southcote Road	Calder Street	Garner Road	2r-3u	1.26	60	0	Widening					\$0	60	\$0
93	McNiven Road	Rousseaux Street	Golf Links Road	2r-3u	0.63	20	0	Widening					\$0	20	\$0
94	Mohawk Road	McNiven Road	Highway 403	2r-3u	1.3	60	0	Widening					\$0	60	\$0
95	Stone Church Road	Harrogate Drive	Stonehenge Drive	2r-4u	0.34	85	0	Widening					\$0	85	\$0
RHBPS Projects															
96	Dartnall Road Extension	Twenty Road	Dickenson Road	4u	1.65	100	2	New (Cat A)	2				\$0	100	\$0
97	Dickenson Road	w/o Nebo	w/o Glover	2r-2u	1.1	60	3	Widening		3			\$252,900	60	\$151,740
98	Nebo Road	Rymal Road	Twenty Road	2r-2u	1.3	85	1	Replacement		1			\$84,300	85	\$71,655
99	Nebo Road	800m South of Twenty Road	Dickenson Road	2r-2u	0.6	85		Widening					\$0	85	\$0
100	Regional Road 56	Rymal Road	ROPA 9 Boundary	2r-5u	1.2	85	3	Widening		3			\$252,900	85	\$214,965
101	Regional Road 56	Cemetery Road	South Limits of ROPA 9	various/E SR	0	85	0	Widening					\$0	85	\$0
102	Twenty Road extension	Glover Road	Upper Red Hill Valley Parkway	3u	0.6	100	2	New		2			\$168,600	100	\$168,600
103	Glover Road	Twenty Road	Rymal Road	2r-2u	2.6	85	0	Widening					\$0	85	\$0
104	Upper Red Hill Valley Parkway (previously Trinity Church Road)	Rymal Road	Dartnall Road extension	5u	2.5	100	1	New		1			\$84,300	100	\$84,300
Waterdown Projects															
105	Burke Street	Dundas Street	Mountain Brow	4u	0.85	95	0	New					\$0	95	\$0



APPENDIX G-1 - CATEGORY E - CULVERTS AND BRIDGES NOT PREVIOUSLY IDENTIFIED IN CATEGORY A

Ref: Hamilton Development Charges -Transportation

24 new

Item Number	Road Project Description	From	To	Improvement	Length km	Benefit to Growth % (Roads)	Number of Culverts/Bridges > 1m ² end area	Replacement /Widening/ New	Identified in Category "A"	Small @ \$84,300 1-4m ²	Medium @ \$168,600 4-8m ²	Large @ \$337,200 >8m ²	Cost (2019\$)	Benefit to Growth % (SWM)	Cost
106	Parkside Drive	Highway 6	Main Street	2r-4u	2.92	60	2	New Cat A	2				\$0	60	\$0
107	Parkside Drive	Main Street	Churchill (500 m east)	2r-4u	0.61.52	60	0	Widening					\$0	60	\$0
108	East-West Road Corridor (Waterdown By-Pass)	Kerns Road	Highway 6	4u	6.34	95	8	New Cat A	8				\$0	95	\$0
109	Waterdown Road (Burlington portion)	Mountain Brow Road	Craven Avenue	2r-4u	1.9	100	0	Widening					\$0	100	\$0
110	Mountain Brow Road	Waterdown Road	New north-south link	2r-4u	0.91	85	2	Widening			2		\$337,200	85	\$286,620
111	Dundas Street	New north-south link	Hamilton Boundary	4u-6u	0.87	85	0	New (Cat A)					\$0	85	\$0
112	Centre Road	Northlawn	Parkside Drive	2r-3u	0.4	60	0	New (Cat A)					\$0	60	\$0
Fruitland Winona Projects															
113	Barton Street	Fruitland Road	Fifty Road	2r-3u	5	60	5	Widening (Cat A)	5				\$0	60	\$0
114	Fifty Road	South Service Road	Barton Street	2r-4u	1	85	0	Widening					\$0	85	\$0
115	Fifty Road Escarpment Access	QEW	Highway 8	2r-2u	0.8	85	0	Widening					\$0	85	\$0
116	Fruitland Road By-pass	Barton Street	Highway 8	4u	1.1	85	1	New (Cat A)	1				\$0	85	\$0
117	Fruitland Road	Arvin Avenue	Barton Street	2u-4u	0.3	85	0	Widening					\$0	85	\$0
118	Highway 8 (Stoney Creek)	Dewitt Road	Fruitland Road	2r-5u	0.8	60	0	Widening					\$0	60	\$0
119	Highway 8 (Stoney Creek)	Fruitland Road	East City Limit	2r-4r_NBR	3.3	60	4	Widening		3	1		\$421,500	60	\$252,900
Elfrida Boundary Expansion Projects															
120	First Road East	Highway 20	Mud Street	2r-3u	2.1	85	1	Widening		1			\$84,300	85	\$71,655
121	Fletcher Road	500m South of Rymal	Golf Club Road	2r-3u	1.6	85	1	Widening		1			\$84,300	85	\$71,655
122	Golf Club Road	Trinity Church Road	Hendershot Road	2r-2u	7.00	85	1	Widening		1			\$84,300	85	\$71,655
123	Hendershot Road	Highway 20	Golf Club Road	2r-3u	2.10	85	1	Widening		1			\$84,300	85	\$71,655
124	Highland Road	Upper Centennial Parkway	Second Road East	2r-3u	2.00	85	0	Widening					\$0	85	\$0
125	Mud Street	Upper Centennial Parkway	Second Road East	2r-2u	2.00	85	1	Widening		1			\$84,300	85	\$71,655
126	Second Road East	Highway 20	Mud Street	2r-3u	3.00	85	1	Widening			1		\$168,600	85	\$143,310
127	Trinity Church Road	Hydro corridor	Golf Club Road	2r-2u	2.00	85	0	Widening					\$0	85	\$0
128	Upper Centennial Parkway	Green Mountain Road	Highway 20	4r-5u	2.90	85	0	Widening					\$0	85	\$0
Other Road Projects															
129	Binbrook Road	Royal Winter Drive/Binhaven Road	Fletcher Road	2r-3u	0.7	85	0	Widening					\$0	85	\$0
130	Highway 8 (Dundas)	Bond Street	Dundas Limits	2r-3u	0.4	60	0	Widening					\$0	60	\$0
131	Highway 8 (Dundas)	Hillcrest	Park Ave	2r-3u	0.6	60	1	Widening		1			\$84,300	60	\$50,580
132	Jones Road	Barton Street	South Service Road	2r-2u	0.90	50	1	Widening		1			\$84,300	50	\$42,150
133	Lewis Road	Barton Street	South Service Road	2r-2u	0.80	50	1	New (Cat A)	1				\$0	50	\$0
134	Longwood Road	Aberdeen Avenue	Main Street	various/ES	0.65	50	0	Widening					\$0	50	\$0
135	Miles Road	Rymal Road	Hydro Corridor	2r-3u	2.00	85	1	Widening		1			\$84,300	85	\$71,655
136	Millen Road	Barton Street	South Service Road	2r-3u	1.00	60	0	Widening					\$0	60	\$0
137	Fletcher Road	Binbrook Road	Golf Club Road	2r-2u	4.20	60	3	Widening		3			\$252,900	60	\$151,740



APPENDIX G-1 - CATEGORY E - CULVERTS AND BRIDGES NOT PREVIOUSLY IDENTIFIED IN CATEGORY A

Ref: Hamilton Development Charges -Transportation

24 new

Item Number	Road Project Description	From	To	Improvement	Length km	Benefit to Growth % (Roads)	Number of Culverts/Bridges > 1m ² end area	Replacement /Widening/ New	Identified in Category "A"	Small @ \$84,300 1-4m ²	Medium @ \$168,600 4-8m ²	Large @ \$337,200 >8m ²	Cost (2019\$)	Benefit to Growth % (SWM)	Cost
138	South Service Road	Millen Road	Gray	2r-2u	1.70	85	0	Widening					\$0	85	\$0
139	Trinity Church Road	Binbrook Road	Golf Club Road	2r-2u	5.20	60	1	Widening				1	\$337,200	60	\$202,320
140	Nebo Road	800m South of Twenty Road	Dickenson Road	2r-2u	0.6	85	0	Widening					\$0	85	\$0
141	Twenty Road	Aldercress Avenue	600m west of Nebo Road	2r-2u	4.1	60	0	Widening					\$0	60	\$0
142	Upper Gage Street	Mohawk Road	Thorley	4u-5u	0.6	50	0	Widening					\$0	50	\$0
143	Upper Sherman Avenue	Stone Church Road	LINC	2r-3u	0.90	60	0	Widening					\$0	60	\$0
144	Upper Sherman Avenue	Stone Church Road	Rymal Road	2r-3u	1.00	60	0	Widening					\$0	60	\$0
145	Upper Wellington Street	Limeridge Street	Stone Church Road	2r-5u	1.20	60	0	Widening					\$0	60	\$0
146	West 5th Street	Limeridge Street	Stone Church Road	2r-3u	1.20	60	0	Widening					\$0	60	\$0
147	Shaver Road	Hwy 403	Wilson Road		1.50	100	1	Widening			1		\$168,600	100	\$168,600
148	Scenic Drive	Old City Limits	Lavender S Leg		1.40	100	1	Widening			1		\$168,600	100	\$168,600
149	North Service Road	Green Road	East City Limits		8.30	100	1	New (Cat A)	1				\$0	100	\$0
150	Victoria Avenue	Ferrie Street	Burlington Street	Two-way conversion Service Roads	0.46	85	0	Widening					\$0	85	\$0
151	Highway 5/6 municipal roads					100	1	New (Cat A)	1				\$0	100	\$0
															\$0
Grand Total							151		64	74	7	6	\$9,441,600		\$7,772,460
Growth %															82%
Total Growth															\$7,772,460

\$4,467,900	Res	\$3,536,385
\$4,973,700	Non-Res	\$4,236,075



APPENDIX G-1 - GRIDS-RELATED STORMWATER MANAGEMENT (QUALITY AND OR QUANTITY) FACILITIES

Primary Dev. Areas	SWMF #	AEGD Stage #	Drainage Area (ha)	Volume (m3)	Estimated Footprint 4% (ha)	Land Cost 4%	Estimated Capital Cost (\$)	Estimated Cost (\$)	Growth Related %	Total Growth Associated Cost (\$)	Post Period Cost (\$)	Net Total Associated Cost 2014-2031 (\$)	Direct Developer Contribution (%)	Direct Developer Contribution (\$)	Net Total Associated Cost (\$)
Expansion to Airport SPA	1	2	77	17,325	3.08	4,968,252	1,096,673	6,064,924	100	6,064,924	6,064,924	-	100	-	-
	2	2	33	7,425	1.32	2,129,251	470,003	2,599,253	100	2,599,253	2,599,253	-	100	-	-
	3	2	38.5	8,663	1.54	2,484,126	548,336	3,032,462	100	3,032,462	3,032,462	-	100	-	-
	4	2	88	19,800	3.52	5,678,002	1,253,340	6,931,342	100	6,931,342	6,931,342	-	100	-	-
	5	1	160	36,000	6.40	10,323,640	2,278,800	12,602,440	100	12,602,440	-	12,602,440	100	12,602,440	-
	6	1	63	14,175	2.52	4,064,933	897,278	4,962,211	100	4,962,211	-	4,962,211	100	4,962,211	-
	10	1	33	7,425	1.32	2,129,251	470,003	2,599,253	100	2,599,253	-	2,599,253	100	2,599,253	-
	11	1	28	6,300	1.12	1,806,637	398,790	2,205,427	100	2,205,427	-	2,205,427	100	2,205,427	-
	12	1	17.88	4,023	0.72	1,153,667	254,656	1,408,323	100	1,408,323	-	1,408,323	100	1,408,323	-
	13	1	108	24,300	4.32	6,968,457	1,538,190	8,506,647	100	8,506,647	-	8,506,647	100	8,506,647	-
	14	1	42.5	9,563	1.70	2,742,217	605,306	3,347,523	100	3,347,523	-	3,347,523	100	3,347,523	-
	15	1	25.5	5,738	1.02	1,645,330	363,184	2,008,514	100	2,008,514	-	2,008,514	100	2,008,514	-
	16	1	34	7,650	1.36	2,193,774	484,245	2,678,019	100	2,678,019	-	2,678,019	100	2,678,019	-
Potential New Business Park (In existing Airport Spa)	17	1	41	9,225	1.64	2,645,433	583,943	3,229,375	100	3,229,375	-	3,229,375	100	3,229,375	-
	18	1	124.88	28,098	5.00	8,057,601	1,778,603	9,836,205	100	9,836,205	-	9,836,205	100	9,836,205	-
	19	1	100	22,500	4.00	6,452,275	1,424,250	7,876,525	100	7,876,525	-	7,876,525	100	7,876,525	-
	20	1	230.5	51,863	9.22	14,872,494	3,282,896	18,155,391	100	18,155,391	-	18,155,391	100	18,155,391	-
	21	1	15	3,375	0.60	967,841	213,638	1,181,479	100	1,181,479	-	1,181,479	100	1,181,479	-
	22	1	34	7,650	1.36	2,193,774	484,245	2,678,019	100	2,678,019	-	2,678,019	100	2,678,019	-
	23	1	140.88	31,698	5.64	9,089,965	2,006,483	11,096,449	100	11,096,449	-	11,096,449	100	11,096,449	-
	24	1	50.5	11,363	2.02	3,258,399	719,246	3,977,645	100	3,977,645	-	3,977,645	100	3,977,645	-
	25	1	97	21,825	3.88	6,258,707	1,381,523	7,640,229	100	7,640,229	-	7,640,229	100	7,640,229	-
	26	2	45	10,125	1.80	2,903,524	640,913	3,544,436	100	3,544,436	3,544,436	-	100	-	-
	27	2	42.75	9,619	1.71	2,758,348	608,867	3,367,215	100	3,367,215	3,367,215	-	100	-	-
	28	2	18	4,050	0.72	1,161,410	256,365	1,417,775	100	1,417,775	1,417,775	-	100	-	-
	29	2	196.75	44,269	7.87	12,694,851	2,802,212	15,497,063	100	15,497,063	15,497,063	-	100	-	-
	30	2	24.75	5,569	0.99	1,596,938	352,502	1,949,440	100	1,949,440	1,949,440	-	100	-	-
	31	2	16.25	3,656	0.65	1,048,495	231,441	1,279,935	100	1,279,935	1,279,935	-	100	-	-
	32	2	15	3,375	0.60	967,841	213,638	1,181,479	100	1,181,479	1,181,479	-	100	-	-
	33	2	30.25	6,806	1.21	1,951,813	430,836	2,382,649	100	2,382,649	2,382,649	-	100	-	-
	34	1	24.75	5,569	0.99	1,596,938	352,502	1,949,440	100	1,949,440	-	1,949,440	100	1,949,440	-
	35	2	12.75	2,869	0.51	822,665	181,592	1,004,257	100	1,004,257	1,004,257	-	100	-	-
	36	2	22.5	5,063	0.90	1,451,762	320,456	1,772,218	100	1,772,218	1,772,218	-	100	-	-
	37	2	33.75	7,594	1.35	2,177,643	480,684	2,658,327	100	2,658,327	2,658,327	-	100	-	-
	38	2	56.25	12,656	2.25	3,629,405	801,141	4,430,545	100	4,430,545	4,430,545	-	100	-	-
	39	1	37.5	8,438	1.50	2,419,603	534,094	2,953,697	100	2,953,697	-	2,953,697	100	2,953,697	-
	7	1	20	4,500	0.80	1,290,455	284,850	1,575,305	100	1,575,305	-	1,575,305	100	1,575,305	-
	8	1	37.25	8,381	1.49	2,403,473	530,533	2,934,006	100	2,934,006	-	2,934,006	100	2,934,006	-
	9	1	58.13	13,079	2.33	3,750,708	827,917	4,578,624	100	4,578,624	-	4,578,624	100	4,578,624	-
	40	1	11.25	2,531	0.45	725,881	160,228	886,109	100	886,109	-	886,109	100	886,109	-
	41	Elfrida (Res)	126	28,350	5.04	8,129,867	1,794,555	9,924,422	100	9,924,422	-	9,924,422	0	-	9,924,422
	42	Elfrida (Res)	21.25	4,781	0.85	1,371,108	302,653	1,673,762	100	1,673,762	-	1,673,762	0	-	1,673,762
	43	Elfrida (Res)	60	13,500	2.40	3,871,365	854,550	4,725,915	100	4,725,915	-	4,725,915	0	-	4,725,915
	44	Elfrida (Res)	71.25	16,031	2.85	4,597,246	1,014,778	5,612,024	100	5,612,024	-	5,612,024	0	-	5,612,024
	45	Elfrida (Res)	22	4,950	0.88	1,419,501	313,335	1,732,836	100	1,732,836	-	1,732,836	0	-	1,732,836
	46	Elfrida (Res)	147	33,075	5.88	9,484,845	2,093,648	11,578,492	100	11,578,492	-	11,578,492	0	-	11,578,492
	47	Elfrida (Res)	168.75	37,969	6.75	10,888,214	2,403,422	13,291,636	100	13,291,636	-	13,291,636	0	-	13,291,636
	48	Elfrida (Res)	140	31,500	5.60	9,033,185	1,993,950	11,027,135	100	11,027,135	-	11,027,135	0	-	11,027,135
Potential Urban Boundary Expansion Area															



APPENDIX G-1 - GRIDS-RELATED STORMWATER MANAGEMENT (QUALITY AND OR QUANTITY) FACILITIES

Primary Dev. Areas	SWMF #	AEGD Stage #	Drainage Area (ha)					Estimated Cost (\$)	Growth Related %	Total Growth Associated Cost (\$)	Post Period Cost (\$)	Net Total Associated Cost 2014-2031 (\$)	Direct Developer Contribution (%)	Direct Developer Contribution (\$)	Net Total Associated Cost (\$)
				Volume (m3)	Estimated Footprint 4% (ha)	Land Cost 4%	Estimated Capital Cost (\$)								
Potential Urban Boundary Expansion Area	49	Elfrida (Res)	66	14,850	2.64	4,258,502	940,005	5,198,507	100	5,198,507	-	5,198,507	0	-	5,198,507
	50	Elfrida (Res)	130.75	29,419	5.23	8,436,350	1,862,207	10,298,557	100	10,298,557	-	10,298,557	0	-	10,298,557
	51	Elfrida (Res)	38.5	8,663	1.54	2,484,126	548,336	3,032,462	100	3,032,462	-	3,032,462	0	-	3,032,462
	52	Elfrida (Res)	102.25	23,006	4.09	6,597,451	1,456,296	8,053,747	100	8,053,747	-	8,053,747	0	-	8,053,747
	53	Elfrida (Res)	25.16	5,661	1.01	1,623,392	358,341	1,981,734	100	1,981,734	-	1,981,734	0	-	1,981,734
	54	Elfrida (Res)	29.25	6,581	1.17	1,887,290	416,593	2,303,884	100	2,303,884	-	2,303,884	0	-	2,303,884
	55	Elfrida (Res)	48.75	10,969	1.95	3,145,484	694,322	3,839,806	100	3,839,806	-	3,839,806	0	-	3,839,806
	56	Elfrida (Res)	29.25	6,581	1.17	1,887,290	416,593	2,303,884	100	2,303,884	-	2,303,884	0	-	2,303,884
	57	Elfrida (Res)	26	5,850	1.04	1,677,592	370,305	2,047,897	100	2,047,897	-	2,047,897	0	-	2,047,897
Total									100	278,606,874	59,113,322	219,493,552		120,866,854	98,626,698
Total Residential									100	98,626,698	-	98,626,698		-	98,626,698
Total Non-Residential									100	179,980,176	59,113,322	120,866,854		120,866,854	-



APPENDIX G-1 - GRIDS-RELATED OPEN WATERCOURSES: EROSION CONTROL AND CHANNEL SYSTEM IMPROVEMENTS

Primary Dev. Areas	Location							Growth Related %	Net Total Associated Cost (\$)	Remarks
		Total Length of Downstream Watercourse to Assumed End-Point ³	Fraction of Watercourse Assumed to Required Erosion Control ²	Length of Erosion Control Works	Estimated Cost (\$)	Land Cost	Estimated Total Cost (\$)			
Expansion to Airport SPA	Ancaster	1,303	0.2	260.6	390,900	243,024	633,924	100	633,924	
	North of Airport	-	0.2	-	-	-	-	100	-	
Potential New Business Park (In Existing Airport Spa)	West of Airport	24,231	0.2	4,846.2	7,269,300	4,519,350	11,788,650	100	11,788,650	
Potential Urban Boundary Expansion Area	South of Twenty Road West, north of Airport	-	0.2	-	-	-	-	100	-	
	Northwest of Golf Club Road and Second Road East	15,337	0.2	3,067.4	4,601,100	2,473,964	7,075,064	100	7,075,064	Residential
Grand Total							19,497,638	100	19,497,638	
Total Residential							7,075,064	100	7,075,064	
Total Non-Residential							12,422,574	100	12,422,574	

²0.05 - Where Development Fraction is 0 - 25%

0.10 - Where Development Fraction is 26 - 49%

0.15 - Where Development Fraction is 50 - 74%

0.20 - Where Development Fraction is 75 - 100%

³Location where d/s of this point no erosion is deemed to occur from subject development; total drainage area to this point estimated as a maximum of 2X the study watershed area.

⁴\$2500/m for Watershed Area > 500 ha

\$1500/m for Watershed Area < 500 ha



21. Draft Calculation and Rate Comparison



21.1 Draft D.C. By-law Rates

Service	RESIDENTIAL					NON-RESIDENTIAL (per sq.ft. of Gross Floor Area)
	Single and Semi-Detached Dwelling	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Other Multiples	Special Care/Special Dwelling Units	
City Wide Services:						
Services Related to a Highway	10,875	6,369	4,356	7,783	3,513	8.14
Public Works Facilities, Fleet & Equipment	791	463	317	566	256	0.40
Police Services	502	294	201	359	162	0.25
Fire Protection Services	458	268	183	328	148	0.23
Transit Services	1,930	1,130	773	1,381	623	0.98
Parkland Development	2,301	1,347	922	1,647	743	0.11
Indoor Recreation Services	4,303	2,520	1,724	3,080	1,390	0.20
Library Services	1,019	597	408	729	329	0.04
Administrative Studies	497	291	199	356	161	0.25
Paramedics	137	80	55	98	44	0.02
Long Term Care	124	73	50	89	40	0.01
Health Services	1	1	-	1	-	0.00
Social & Child Services	13	8	5	9	4	0.00
Social Housing	673	394	270	482	217	0.00
Airport facilities	376	220	151	269	121	0.19
Parking services	491	288	197	351	159	0.25
Provincial Offences Act	34	20	14	24	11	0.02
Waste Diversion	657	385	263	470	212	0.13
Total City Wide Services	25,182	14,748	10,088	18,022	8,133	11.22
Urban Services						
Wastewater Facilities	3,893	2,280	1,559	2,786	1,258	1.87
Wastewater Linear Services	5,326	3,119	2,134	3,812	1,721	2.55
Water Services	4,755	2,785	1,905	3,403	1,536	2.29
Combined Sewer System						
Stormwater Drainage and Control Services	3,539	2,072	1,418	2,533	1,143	0.00
Separated Sewer System						
Stormwater Drainage and Control Services	13,085	7,663	5,242	9,365	4,227	2.24
GRAND TOTAL CITY WIDE	25,182	14,748	10,088	18,022	8,133	11.22
GRAND TOTAL URBAN AREA (COMBINED SEWER SYSTEM)	42,695	25,004	17,104	30,556	13,791	17.93
GRAND TOTAL URBAN AREA (SEPARATED SEWER SYSTEM)	52,241	30,595	20,928	37,388	16,875	20.17



21.2 Rate Comparison – Residential & Non-Residential

Residential (Single Detached) Comparison			
Service	Current	Calculated	Calculated v. Current
City Wide Services:			
Services Related to a Highway	8,939	10,875	22%
Public Works Facilities, Fleet & Equipment	333	791	138%
Police Services	421	502	19%
Fire Protection Services	371	458	23%
Transit Services	544	1,930	255%
Parkland Development	1,479	2,301	56%
Indoor Recreation Services	2,271	4,303	89%
Library Services	642	1,019	59%
Administrative Studies	795	497	-37%
Paramedics	39	137	251%
Long Term Care	257	124	-52%
Health Services	28	1	-96%
Social & Child Services	31	13	-58%
Social Housing	583	673	15%
Airport facilities	261	376	44%
Parking services	366	491	34%
Provincial Offences Act	25	34	36%
Hamilton Conservation Authority	24	-	-100%
Waste Diversion	Previously Ineligible	657	N/A
Total City Wide Services	17,409	25,182	45%
Water and Wastewater Urban Area Charges:			
Wastewater Facilities	4,090	3,893	-5%
Wastewater Linear Services	5,151	5,326	3%
Water Services	4,603	4,755	3%
Total Water and Wastewater Urban Area Services	13,844	13,974	1%
Stormwater Charges:			
Stormwater Drainage and Control Services (Combined Sewer System)	7,065	3,539	-50%
Stormwater Drainage and Control Services (Separated Sewer System)	7,065	13,085	85%
GRAND TOTAL CITY WIDE	17,409	25,182	45%
GRAND TOTAL URBAN AREA COMBINED SEWER SYSTEM	38,318	42,695	11%
GRAND TOTAL URBAN AREA SEPARATED SEWER SYSTEM	38,318	52,241	36%

Calculated rate in 2019\$



Non-Residential (per sq.ft.) Comparison

Service	Current	Calculated	Calculated v. Current
City Wide Services:			
Services Related to a Highway	9.10	8.14	-11%
Public Works Facilities, Fleet & Equipment	0.19	0.40	111%
Police Services	0.23	0.25	9%
Fire Protection Services	0.21	0.23	10%
Transit Services	0.34	0.98	188%
Parkland Development	0.11	0.11	0%
Indoor Recreation Services	0.16	0.20	25%
Library Services	0.04	0.04	0%
Administrative Studies	0.48	0.25	-48%
Paramedics	0.02	0.02	0%
Long Term Care	0.04	0.01	-75%
Health Services	-	-	-
Social & Child Services	-	-	N/A
Social Housing	-	-	-
Airport facilities	0.16	0.19	19%
Parking services	0.22	0.25	14%
Provincial Offences Act	0.01	0.02	100%
Hamilton Conservation Authority	0.02	-	-100%
Waste Diversion		0.13	
Total City Wide Services	11.33	11.22	-1%
Water and Wastewater Urban Area Charges:			
Wastewater Facilities	2.30	1.87	-19%
Wastewater Linear Services	2.90	2.55	-12%
Water Services	2.60	2.29	-12%
Total Water and Wastewater Urban Area Services	7.80	6.71	-14%
Stormwater Charges:			
Stormwater Drainage and Control Services (Combined Sewer System)	1.41	-	-100%
Stormwater Drainage and Control Services (Separated Sewer System)	1.41	2.24	59%
GRAND TOTAL CITY WIDE	11.33	11.22	-1%
GRAND TOTAL URBAN AREA COMBINED SEWER SYSTEM	20.54	17.93	-13%
GRAND TOTAL URBAN AREA SEPARATED SEWER SYSTEM	20.54	20.17	-2%

Calculated rate in 2019\$



21.3 Summary of Utilized Service Standards

LEVEL OF SERVICE CEILING

CITY OF HAMILTON

SUMMARY OF SERVICE STANDARDS AS PER DEVELOPMENT CHARGES ACT, 1997, AS AMENDED

Service Category	Sub-Component	10 Year Average Service Standard					Maximum Ceiling LOS	Utilized**	Remaining
		Cost (per capita)	Quantity (per capita)		Quality (per capita)				
Services Related to a Highway	Roads	\$22,997.80	0.0092	lane km of roadways	2,499,761	per lane km	1,982,019,397	659,960,020	1,606,980,375
	Bridges, Culverts & Structures	\$3,021.00	0.0007	Number of Bridges, Culverts & Structures	4,315,714	per item	260,358,843		
	Traffic Signals	\$250.50	0.0010	No. of Traffic Signals	250,500	per signal	21,588,842		
	Active Transportation - Terminals	\$17.80	0.0563	sq.ft. of terminal space	316	per sq.ft.	1,534,057		
	Active Transportation - Shelters	\$16.70	0.0021	No. of Shelters/Pads	7,952	per item	1,439,256		
	Facilities	\$945.73	1.6712	sq.ft. of building area	566	per sq.ft.	81,505,849	26,785,330	54,720,518
	Vehicles and Equipment	\$184.36	0.0023	No. of vehicles and equipment	80,157	per vehicle	15,888,698	14,210,885	1,677,813
Fire	Fire Facilities	\$194.54	0.4755	sq.ft. of building area	409	per sq.ft.	16,766,041	22,754,342	7,762,196
	Fire Vehicles	\$122.13	0.0002	No. of vehicles	610,650	per vehicle	10,525,530		
	Fire Small Equipment and Gear	\$37.42	0.0086	No. of equipment and gear	4,351	per Firefighter	3,224,968		
Police	Police Facilities	\$261.70	0.5821	sq.ft. of building area	450	per sq.ft.	22,554,091	24,665,678	1,163,367
	Police Vehicles	\$16.30	0.0004	No. of vehicles and equipment	40,750	per vehicle	1,404,783		
	Police Small Equipment and Gear	\$21.70	0.0045	No. of equipment and gear	4,822	per Officer	1,870,171		
Parking	Parking Spaces	\$263.81	0.0090	No. of spaces	29,312	per space	17,159,785	22,114,537	880,525
	Parking Meters	\$4.37	0.0051	No. of Meters	857	per meter	284,251		
	Parking Facilities	\$85.34	0.0599	sq.ft. of building area	1,425	per sq.ft.	5,551,026		
Airport	Airport Space	\$291.51	0.0029	acres of land	100,521	per sq.ft.	18,961,559	16,818,851	2,142,708
Parks	Parkland Development	\$447.94	0.0115	Acres of Parkland	38,951	per acre	29,136,705	65,965,460	1,645,954
	Parkland Amenities	\$560.40	0.0334	No. of parkland amenities	16,778	per amenity	36,451,778		
	Parkland Amenities - Buildings	\$10.11	0.1066	sq.ft. of building area	95	per sq.ft.	657,615		
	Parkland Trails	\$20.73	0.0001	Linear Kilometres of Paths and Trails	207,300	per lin m.	1,348,404		
	Parks Vehicles and Equipment	\$0.26	0.0001	No. of vehicles and equipment	2,600	per vehicle	16,912		
Recreation	Indoor Recreation Facilities	\$1,796.90	3.9848	sq.ft. of building area	451	per sq.ft.	116,881,157	123,522,251	5,033,362
	Indoor Recreation Facilities - Buildings Within Parks	\$178.95	0.4181	sq.ft. of building area	428	per sq.ft.	11,639,982		
	Recreation Vehicles and Equipment	\$0.53	0.0001	No. of vehicles and equipment	5,300	per vehicle	34,474		

*Transit is now based on a forward looking service standard based on the amendments to the DCA

**Utilized amounts do not include interest costs from debentures.



LEVEL OF SERVICE CEILING

CITY OF HAMILTON

SUMMARY OF SERVICE STANDARDS AS PER DEVELOPMENT CHARGES ACT, 1997, AS AMENDED

Service Category	Sub-Component	10 Year Average Service Standard					Maximum Ceiling LOS	Utilized**	Remaining
		Cost (per capita)	Quantity (per capita)		Quality (per capita)				
Library	Library Facilities	\$389.01	0.7264	sq.ft. of building area	536	per sq.ft.	25,303,544	24,709,161	747,892
	Library Vehicles	\$2.36	0.00001	No. of vehicles and equipment	214,545	per vehicle	153,509		
	Library Collection Materials	\$70.77	2.0094	No. of library collection items	35	per collection item	4,603,305		
Paramedics	Paramedics Facilities	\$38.52	0.1225	sq.ft. of building area	314	per sq.ft.	2,505,572	2,319,005	186,567
	Paramedics Vehicles	\$27.60	0.0005	No. of vehicles and equipment	55,200	per vehicle	1,795,270	1,794,600	670
Long Term Care	Long Term Care Facilities	\$305.30	0.6387	sq.ft. of building area	478	per sq.ft.	19,858,544	4,077,773	15,780,771
Social Housing	Social Housing	\$1,604.83	10.71	sq.ft. of building area	149.84	per sq.ft.	104,387,772	18,734,570	85,653,202
Provincial Offences Act	Provincial Offences Act Facilities	\$22.48	0.0421	sq.ft. of building area	533.97	per sq.ft.	1,462,234	1,229,439	232,795
Health	Health Facilities	\$76.78	0.1975	sq.ft. of building area	389	per sq.ft.	4,994,232	81,191	4,961,175
	Health Vehicles	\$0.74	0.000002	No. of vehicles	390,898	per vehicle	48,134		
Social & Child Services	Social and Child Services Facilities	\$94.63	0.2647	sq.ft. of building area	357	per sq.ft.	6,155,303	362,227	5,793,076
Waste Diversion	Waste Diversion - Facilities - Stations/Depots	\$271.10	0.6940	sq.ft. of building area	391	per sq.ft.	17,633,971	22,054,910	2,055,691
	Waste Diversion - Vehicles & Equipment	\$79.39	0.0004	No. of vehicles and equipment	198,475	per vehicle	5,164,002		
	Waste Diversion - Carts & Containers	\$20.18	1.3441	No. of items	15	per Item	1,312,628		

*Transit is now based on a forward looking service standard based on the amendments to the DCA

**Utilized amounts do not include interest costs from debentures.

