

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses
2011 - 2020 Net Capital Expenditures by Program
 (000's)

Roads, Storm Drainage and Watercourses	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Bridge and Structure Rehabilitation	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	45,000
Major Roads	11,231	12,148	13,620	20,958	38,070	28,018	13,920	10,578	14,398	12,006	174,947
Other Engineering	22,012	27,562	21,362	24,917	31,229	22,332	12,851	21,772	22,752	12,259	219,050
Roadway Rehabilitation	22,908	15,374	16,224	23,900	24,450	23,900	23,850	24,500	23,850	23,900	222,855
Storm Drainage	6,977	17,311	19,710	12,230	8,110	9,750	5,290	5,310	4,750	3,840	93,278
Total Net Expenditures	67,628	76,895	75,416	86,505	106,359	88,500	60,411	66,660	70,250	56,505	755,130

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**Roads, Storm Drainage and Watercourses
2011 - 2020 Net Capital Expenditures By Sub-Program
(000's)**

	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	Total
Bridges & Structure Rehabilitation	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Bridge and Structure Rehabilitation	3,980	4,200	4,000	0	0	0	0	0	0	0	12,180
Bridge Repairs	120	100	300	4,300	4,100	4,300	4,300	4,300	4,100	4,300	30,220
Bridge and Culvert Appraisal & Improvement Priority	200	0	0	0	200	0	0	0	200	0	600
Inspection & Design	200	200	200	200	200	200	200	200	200	200	2,000
Total Net Expenditures	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	45,000

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Program: Bridge and Structure Rehabilitation

Bridge & Structure Rehabilitation

Year	Project	Pavement	Deck	Girders	Sub Structure	Expansion Joints	Sidewalk	Handrail	Other	Net Cost ('000's)
2011	Lakeshore Road East over AppleWood Creek	X							X	1,200
2011	Lakeshore Road East over Serson Creek	X					X		X	875
2011	Tannery Street Over Mullet Creek		X		X		X	X	X	285
2011	St. Mary's Avenue over Applewood Creek	X							X	350
2011	Eglinton Avenue West over the Credit River East Bound	X	X		X	X	X	X	X	690
2011	Eglinton Avenue West over the Credit River West Bound	X	X		X	X	X	X	X	580
2012	Dundas Street East over Cooksville Creek	X			X		X		X	4,000
2012	CNR Rail (Metro Linx) Goreway Drive	X			X		X	X	X	200
2013	Pinetree Cres over Stavebank Creek	X							X	200
2013	Birchwood Drive over East Branch of Birchwood Creek	X							X	300
2013	Bloor Street over East Etobicoke Creek	X	X	X	X	X	X	X	X	600
2013	Glen Erin Drive Over Pedestrian Trail	X					X	X	X	1,400
2013	Barbertown Road over Carolyn Creek	X							X	200
2013	Second Line West over Fletchers Creek	X							X	1,300
Total										12,180

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Program: Bridge and Structure Rehabilitation

Bridge Repairs

Year	Project	Description	Net Cost ('000's)
2011	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	120
2012	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	100
2013	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	300
2014	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	4,300
2015	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	4,100
2016	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	4,300
2017	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	4,300
2018	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	4,300
2019	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	4,100
2020	Bridge Repairs	Funding for bridge repairs that are determined during the yearly appraisal	4,300
Total			30,220

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Program: Bridge and Structure Rehabilitation

Bridge/Culvert Appraisal & Improvement Priority

Year	Project	Description	Net Cost ('000's)
2011	Bridge/Culvert Appraisal & Improvement Priority	Funding for bridge repairs that are determined during the yearly appraisal	200
2015	Bridge/Culvert Appraisal & Improvement Priority	Funding for bridge repairs that are determined during the yearly appraisal	200
2019	Bridge/Culvert Appraisal & Improvement Priority	Funding for bridge repairs that are determined during the yearly appraisal	200
Total			600

Inspection & Design

Year	Project	Description	Net Cost ('000's)
2011	Inspection & Design	Design and inspection costs to carry out the required bridge repairs	200
2012	Inspection & Design	Design and inspection costs to carry out the required bridge repairs	200
2013	Inspection & Design	Design and inspection costs to carry out the required bridge repairs	200
2014 - 2020	Inspection & Design	Design and inspection costs to carry out the required bridge repairs	1,400
Total			2,000

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2011 - 2020 Net Capital Expenditures By Sub-Program
(000's)

Major Roads	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Grade Separation	0	0	0	0	8,000	0	8,000	6,000	5,000	0	27,000
Intersection Improvements	898	898	898	898	898	898	898	898	898	898	8,980
Road Improvements	10,333	11,250	12,722	20,060	29,172	27,120	5,022	3,680	8,500	11,108	138,967
Total Net Expenditures	11,231	12,148	13,620	20,958	38,070	28,018	13,920	10,578	14,398	12,006	174,947

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Program: Major Roads

Grade Separation

Year	Project	Description	Net Cost ('000's)
2015	Grade Separation	Goreway Drive Grade Separation - Construction	8,000
2017	Grade Separation	Drew Road Grade Separation - Phase One	8,000
2018	Grade Separation	Drew Road Grade Separation - Phase Two	6,000
2019	Grade Separation	Ninth Line/Tenth Line Grade Separation	5,000
Total			27,000

Intersection Improvements

Year	Project	Description	Net Cost ('000's)
2011	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
2012	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
2013	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
2014	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
2015	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
2016	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
2017	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
2018	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
2019	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
2020	Intersection Improvements	Funding to improve operation deficiencies of intersections throughout the City	898
Total			8,980

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Program: Major Roads

Road Improvements - 2014 to 2020

Year	Project	Description	Net Cost ('000's)
2014	Road Improvements	Preliminary Engineering Studies	100
2014	Road Improvements	Duke of York from Burnhamthorpe Road West to Rathburn Road West	100
2014	Road Improvements	DCA Study (Major Roads)	200
2014	Road Improvements	Official Plan Study	200
2014	Road Improvements	Creekbank Road - Matheson Boulevard East to North Limit of Creekbank	780
2014	Road Improvements	Creekbank Road Extension North Limit of Creekbank to South Highway 401	930
2014	Road Improvements	Centreview Drive Widening - Duke of York to Rathburn Road West	1,270
2014	Road Improvements	Courtneypark Drive East - Tomken Road to Dixie Road	3,770
2014	Road Improvements	Courtneypark Drive - Kennedy Road to Tomken Road	4,210
2014	Road Improvements	Drew Road - Dixie Road to Tomken Road - Phase 2 (Structure)	8,500
2015	Road Improvements	Preliminary Engineering Studies	100
2015	Road Improvements	Derrycrest Drive - Derry Road West to Hurontario Street	150
2015	Road Improvements	Transportation Master Plan Study	200
2015	Road Improvements	Mavis Road - 220m North of tracks to Burnhamthorpe Road	250
2015	Road Improvements	Burnhamthorpe Road - Hurontario Street to Confederation Parkway	12,500
2015	Road Improvements	Webb Drive - East Limit to Kariya Drive	1,000
2015	Road Improvements	Belgrave Drive from Cantay Road to North Termius and Highway 401	1,560

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Program: Major Roads

Road Improvements - 2014 to 2020

Year	Project	Description	Net Cost ('000's)
2015	Road Improvements	Highway 401 Eastbound Ramp Extension - Mavis Road to Belgrave Drive	2,110
2015	Road Improvements	Creekbank Road Extension Structure over Highway 401 Phase 1 of 2	3,802
2015	Road Improvements	Creekbank Road Extension Structure over Highway 401 Phase 2 of 2	7,500
2016	Road Improvements	Preliminary Engineering Studies	100
2016	Road Improvements	City Centre Drive from Duke of York to Kariya Gate	150
2016	Road Improvements	Burnhamthorpe Road - Confederation Parkway to Mavis Road	17,500
2016	Road Improvements	Square One Drive from Confederation Parkway to Rathburn Road West	1,200
2016	Road Improvements	Drew Road - From 660m East of Torbram Road to Airport Road	1,350
2016	Road Improvements	Derrycrest - Derry Road West to Hurontario Street	1,520
2016	Road Improvements	Drew Road Widening - Torbram Road to 660m Easterly	1,790
2016	Road Improvements	Highway 401 Westbound Off Ramp - Highway 401 to Enterprise Road	3,510
2017	Road Improvements	Preliminary Engineering Studies	100
2017	Road Improvements	Creekbank Road Extension - Shawson Drive to Britannia Road East	1,018
2017	Road Improvements	Creekbank Road Extension - Enterprise Road to Shawson Drive	1,348
2017	Road Improvements	Sheridan Park Drive - West Leg Speakman to East Leg Speakman	2,556
2018	Road Improvements	Preliminary Engineering Studies	100
2018	Road Improvements	Edwards Boulevard Extension to Highway 407	450
2018	Road Improvements	Mavis Road - 220m North of tracks to Burnhamthorpe Road	3,130

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Program: Major Roads

Road Improvements - 2014 to 2020

Year	Project	Description	Net Cost ('000's)
2019	Road Improvements	Preliminary Engineering Studies	100
2019	Road Improvements	DCA Study (Major Roads)	200
2019	Road Improvements	Official Plan Study	200
2019	Road Improvements	Highway 403 North Service Road from Mavis Road to Hurontario Street	290
2019	Road Improvements	Edwards Boulevard Extension - North of Topflight Drive to Highway 10/Highway 407	1,280
2019	Road Improvements	Creditview Road - Argentia Road to Old Creditview Road (Including Creditview Road Bridge)	6,430
2020	Road Improvements	Preliminary Engineering Studies	100
2020	Road Improvements	Whittle Road - Britannia to Matheson	2,958
2020	Road Improvements	Highway 403 North Service Road from Mavis Road to Hurontario Street	8,050
Total	2014 to 2020		104,662

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Program: Major Roads

Road Improvements - 2011 to 2013 Detail

Year	Project	Activity	Reconstruct/ Widen	New Road	Streetscaping	# Through Lanes	Intersection Improvements	Traffic Signals	Streetlighting	Storm Sewer	Sidewalk	Other	Net Cost ('000's)
2011	Duke of York/Square One Drive Roundabout	Construct		X	X				X	X	X	X	2,000
2011	Creditview Road Bridge Widening at Creditview River	Construct	X									X	3,000
2011	Burnhamthorpe Road West Interim Rehabilitation - Arista Way to Mavis Road	Construct			X		X				X	X	4,750
2011	Transportation Master Plan	Study											50
2011	Preliminary Engineering Studies	Study											83
2011	Downtown- Transportation Functional Design	Study											200
2011	Ninth Line from Derry Road West to North Limit - Grade Separation Feasibility Study/Road Environment Assessment	Study											250
2012	Main Street (Baif Road) - Burnhamthorpe Road West to Webb Drive	Construct		X	X	2			X	X	X	X	500
2012	Ninth Line - Derry Road West to North Limit	Construct	X		X	4			X		X	X	9,400
2012	Preliminary Engineering Studies	Study											100
2012	Square One Drive from Confederation Parkway to Rathburn Road West	Study											100
2012	Britannia Road Extension -Burnside Court to Britannia Terminus	Study											150
2012	Downtown- Transportation Functional Design	Study											200
2012	Belgrave Drive from Cantay Road to North Terminus and Highway 401	Study											250
2012	Sheridan Park Drive - West Leg Speakman to East Leg Speakman	Study											250
2012	Creditview Road - Argentia Road to Old Creditview Road	Study											300
2013	Creekbank Road Extension - Highway 401 Bridge to Enterprise Road	Construct		X	X	4			X	X	X	X	2,362
2013	Drew Road - Dixie Road to Tomken Road - Phase 1	Construct		X	X	4		X	X	X		X	6,000
2013	McLaughlin Road Bristol Road to Britannia Road West	Design/Construct	X		X					X	X	X	4,260
2013	Preliminary Engineering Studies	Study											100
Total	2011 to 2013												34,305

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 (000's)

Other Engineering	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Cycling Program	3,770	3,770	3,770	3,770	3,770	3,770	3,770	3,770	3,770	3,770	37,700
Facility Repairs - Works	0	20	20	20	20	20	20	20	20	20	180
New Vehicles & Equipment	545	600	195	195	195	195	195	195	195	195	2,705
Noise Wall Program	1,850	3,000	3,000	1,556	756	756	756	750	1,169	1,450	15,043
Parking - Municipal	300	298	460	160	15,000	0	0	0	0	0	16,218
Property Acquisition	6,000	7,030	1,680	2,180	3,310	0	0	2,470	11,090	0	33,760
Salt Management Program	200	2,550	50	7,150	50	5,450	50	50	50	50	15,650
Sidewalks	2,244	2,244	2,244	2,244	257	257	257	257	257	257	10,518
Specialized Equipment	70	50	166	50	50	50	50	50	50	50	636
Streetlighting	1,417	1,417	1,417	1,417	1,417	1,417	1,417	1,417	1,417	1,417	14,167
Survey Equipment and Control	35	295	35	35	35	35	35	35	35	35	610
Topographical Updating	45	45	45	145	45	45	45	155	45	45	660
Traffic Signals	3,717	2,492	4,492	2,492	2,492	2,492	2,492	3,992	2,492	2,492	29,640
Vehicle & Equipment Replacement	1,820	3,752	3,739	3,454	3,733	2,986	3,765	2,512	2,163	2,479	30,403
Works Yards Space	0	0	50	50	100	4,860	0	6,100	0	0	11,160
Total Net Expenditures	18,242	23,792	17,592	21,147	27,459	18,562	9,081	18,002	18,982	8,489	219,050

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Program: Other Engineering

Cycling Program

Year	Project	Description	Net Cost ('000's)
2011	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
2012	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
2013	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
2014	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
2015	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
2016	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
2017	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
2018	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
2019	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
2020	Cycling Program	Implementation of Cycling Program in accordance with Cycling Master Plan	3,770
Total			37,700

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Program: Other Engineering

Facility Repair - Works

Year	Project	Description	Net Cost ('000's)
2012	Facility Repairs - Works	Minor facility repairs and maintenance for Works facilities	20
2013	Facility Repairs - Works	Minor facility repairs and maintenance for Works facilities	20
2014	Facility Repairs - Works	Minor facility repairs and maintenance for Works facilities	20
2015	Facility Repairs - Works	Minor facility repairs and maintenance for Works facilities	20
2016	Facility Repairs - Works	Minor facility repairs and maintenance for Works facilities	20
2017	Facility Repairs - Works	Minor facility repairs and maintenance for Works facilities	20
2018	Facility Repairs - Works	Minor facility repairs and maintenance for Works facilities	20
2019	Facility Repairs - Works	Minor facility repairs and maintenance for Works facilities	20
2020	Facility Repairs - Works	Minor facility repairs and maintenance for Works facilities	20
Total			180

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Program: Other Engineering

New Vehicles and Equipment

Year	Project	Description	Net Cost ('000's)
2011	New Vehicles & Equipment	Automated Vehicle Locator	150
2011	New Vehicles & Equipment	New Vehicles & Equipment	195
2011	New Vehicles & Equipment	New Vehicles & Equipment - Amended Minimum Maintenance Standards - Sign Inventory, Sidewalk Patrol and Street Lighting	200
2012	New Vehicles & Equipment	New Vehicles & Equipment	195
2012	New Vehicles & Equipment	New Vehicles & Equipment - South East Works Yard	405
2013	New Vehicles & Equipment	New Vehicles & Equipment	195
2014	New Vehicles & Equipment	New Vehicles & Equipment	195
2015	New Vehicles & Equipment	New Vehicles & Equipment	195
2016	New Vehicles & Equipment	New Vehicles & Equipment	195
2017	New Vehicles & Equipment	New Vehicles & Equipment	195
2018	New Vehicles & Equipment	New Vehicles & Equipment	195
2019	New Vehicles & Equipment	New Vehicles & Equipment	195
2020	New Vehicles & Equipment	New Vehicles & Equipment	195
Total			2,705

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Program: Other Engineering

Noise Wall Program

Year	Project	Description	Net Cost ('000's)
2011	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	1,850
2012	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	3,000
2013	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	3,000
2014	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	1,556
2015	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	756
2016	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	756
2017	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	756
2018	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	750
2019	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	1,169
2020	Noise Wall Program	Replacement of existing noise walls as prioritized according to current condition. Also includes opportunity for new noise wall construction.	1,450
Total			15,043

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Program: Other Engineering

Parking - Municipal

Year	Project	Description	Net Cost ('000's)
2011	Parking - Municipal	Pay & Display Parking meters - City Centre and Lakeshore	300
2012	Parking - Municipal	New Van including rack to support Pay & Display expansion	48
2012	Parking - Municipal	Pay & Display Parking meters - City Centre and Lakeshore	250
2013	Parking - Municipal	Pay & Display Parking meters - City Centre, Lakeshore and Streetsville	460
2014	Parking - Municipal	Pay & Display Parking meters - City Centre and Lakeshore	160
2015	Parking - Municipal	Parking Structure Construction - City Centre	15,000
Total			16,218

Property Acquisition

Year	Project	Description	Net Cost ('000's)
2011	Property Acquisition	Ongoing program of purchasing right-of-way widenings required for major road improvements	6,000
2012	Property Acquisition	Ongoing program of purchasing right-of-way widenings required for major road improvements	7,030
2013	Property Acquisition	Ongoing program of purchasing right-of-way widenings required for major road improvements	1,680
2014	Property Acquisition	Ongoing program of purchasing right-of-way widenings required for major road improvements	2,180
2015	Property Acquisition	Ongoing program of purchasing right-of-way widenings required for major road improvements	3,310
2018	Property Acquisition	Ongoing program of purchasing right-of-way widenings required for major road improvements	2,470
2019	Property Acquisition	Ongoing program of purchasing right-of-way widenings required for major road improvements	11,090
Total			33,760

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Program: Other Engineering

Property Acquisition Details

Year	Road	Limits
2011-2012	Creekbank Road Extension	Matheson Boulevard Road to Britannia Road East
2011	McLaughlin Road	Bristol Road to Britannia Road
2013	Courtneypark Drive	Tomken Road to Dixie Road
2014	Belgrave Drive	Cantay Road to Mavis Road Ramp Extension
2014	Mavis	Highway 401 Eastbound Extension from Mavis Road to Belgrave Road
2015	Enterprise Road	Highway 401 Westbound off Ramp to Enterprise Road
2018	Edwards Boulevard	Edwards Boulevard from North Topflight to Highway 10/407
2019	North Service Road - Highway 403	Mavis Road to Hurontario Street

Salt Management Program

Year	Project	Description	Net Cost ('000's)
2011	Salt Management Program	Implementation of plan to comply with Environment Canada's Code of Practice for the Environmental Management of Road Salt.	50
2011	Salt Management Program	Permanent Snow Storage Sites Feasibility - Business Case Study for three locations	150
2012	Salt Management Program	Implementation of plan to comply with Environment Canada's Code of Practice for the Environmental Management of Road Salt.	50
2012	Salt Management Program	Permanent Snow Storage Sites Design & Construction - Loreland Facility	2,500
2013	Salt Management Program	Implementation of plan to comply with Environment Canada's Code of Practice for the Environmental Management of Road Salt.	50
2014	Salt Management Program	Implementation of plan to comply with Environment Canada's Code of Practice for the Environmental Management of Road Salt.	50
2014	Salt Management Program	Permanent Snow Storage Sites - North West Section	7,100
2015	Salt Management Program	Implementation of plan to comply with Environment Canada's Code of Practice for the Environmental Management of Road Salt.	50
2016	Salt Management Program	Implementation of plan to comply with Environment Canada's Code of Practice for the Environmental Management of Road Salt.	50
2016	Salt Management Program	Permanent Snow Storage Sites - Central District	5,400
2017-2020	Salt Management Program	Implementation of plan to comply with Environment Canada's Code of Practice for the Environmental Management of Road Salt.	200
Total			15,650

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Program: Other Engineering

Sidewalks

Year	Project	Description	Net Cost ('000's)
2011	Sidewalks	New sidewalk construction throughout the City.	2,244
2012	Sidewalks	New sidewalk construction throughout the City.	2,244
2013	Sidewalks	New sidewalk construction throughout the City.	2,244
2014	Sidewalks	New sidewalk construction throughout the City.	2,244
2015	Sidewalks	New sidewalk construction throughout the City.	257
2016	Sidewalks	New sidewalk construction throughout the City.	257
2017	Sidewalks	New sidewalk construction throughout the City.	257
2018	Sidewalks	New sidewalk construction throughout the City.	257
2019	Sidewalks	New sidewalk construction throughout the City.	257
2020	Sidewalks	New sidewalk construction throughout the City.	257
Total			10,518

Specialized Equipment

Year	Project	Description	Net Cost ('000's)
2011	Specialized Equipment	Dispatch Office - Two Lines plus radio equipment	20
2011	Specialized Equipment	Equipment required to maintain the City's road and traffic signal network	50
2012	Specialized Equipment	Equipment required to maintain the City's road and traffic signal network	50
2013	Specialized Equipment	Equipment required to maintain the City's road and traffic signal network	50
2013	Specialized Equipment	Infrastructure Management System - Transportation and Works permit and dispatch services	116
2014-2019	Specialized Equipment	Equipment required to maintain the City's road and traffic signal network	350
Total			636

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Program: Other Engineering

Streetlighting

Year	Project	Description	Net Cost ('000's)
2011	Streetlighting	On going program of installing and upgrading streetlighting along various roads throughout the City.	1,417
2012	Streetlighting	On going program of installing and upgrading streetlighting along various roads throughout the City.	1,417
2013	Streetlighting	On going program of installing and upgrading streetlighting along various roads throughout the City.	1,417
2014-2020	Streetlighting	On going program of installing and upgrading streetlighting along various roads throughout the City.	9,917
Total			14,167

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Program: Other Engineering

Survey Equipment and Control

Year	Project	Description	Net Cost ('000's)
2011	Survey Equipment	Integrated Surveys and Control Network	35
2012	Survey Equipment	Integrated Surveys and Control Network	35
2012	Survey Equipment	Base stations and rover	126
2012	Survey Equipment	Rovers	84
2012	Survey Equipment	Upgrade 2 stations - Autolock to robotic	17
2012	Survey Equipment	Upgrade 2 stations to full robotics	33
2013	Survey Equipment	Integrated Surveys and Control Network	35
2014	Survey Equipment	Integrated Surveys and Control Network	35
2015	Survey Equipment	Integrated Surveys and Control Network	35
2016	Survey Equipment	Integrated Surveys and Control Network	35
2017	Survey Equipment	Integrated Surveys and Control Network	35
2018	Survey Equipment	Integrated Surveys and Control Network	35
2019	Survey Equipment	Integrated Surveys and Control Network	35
2020	Survey Equipment	Integrated Surveys and Control Network	35
Total			610

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Other Engineering

Topographical Updating

Year	Project	Description	Net Cost ('000's)
2011	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	45
2012	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	45
2013	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	45
2014	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	145
2015	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	45
2016	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	45
2017	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	45
2018	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	155
2019	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	45
2020	Topographical Updating	Update of 1:2,000 topographic mapping asset to supply the various City business systems with up-to-date information including Mississauga Approval Xpress (MAX), TXM Tax Manager and the new eCity portal	45
Total			660

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Other Engineering

Traffic Signals

Year	Project	Description	Net Cost ('000's)
2011	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2011	Traffic Signals	LED City Wide Traffic Signal Lens Replacement	1,125
2011	Traffic Signals	Traffic Management Centre	100
2011	Traffic Signals	Traffic Signal Equipment Enhancements	155
2011	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2011	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2011	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
2012	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2012	Traffic Signals	Traffic Signal Equipment Enhancements	155
2012	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2012	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2012	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
2013	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2013	Traffic Signals	Traffic Management Centre	2,000
2013	Traffic Signals	Traffic Signal Equipment Enhancements	155
2013	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2013	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2013	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
2014	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2014	Traffic Signals	Traffic Signal Equipment Enhancements	155

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Other Engineering

Traffic Signals

Year	Project	Description	Net Cost ('000's)
2014	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2014	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2014	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
2015	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2015	Traffic Signals	Traffic Signal Equipment Enhancements	155
2015	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2015	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2015	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
2016	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2016	Traffic Signals	Traffic Signal Equipment Enhancements	155
2016	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2016	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2016	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
2017	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2017	Traffic Signals	Traffic Signal Equipment Enhancements	155
2017	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2017	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2017	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
2018	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2018	Traffic Signals	LED City Wide Traffic Signal Lens Replacement	1,500

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Other Engineering

Traffic Signals

Year	Project	Description	Net Cost ('000's)
2018	Traffic Signals	Traffic Signal Equipment Enhancements	155
2018	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2018	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2018	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
2019	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2019	Traffic Signals	Traffic Signal Equipment Enhancements	155
2019	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2019	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2019	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
2020	Traffic Signals	Field Equipment Replacement - Traffic Controllers	190
2020	Traffic Signals	Traffic Signal Equipment Enhancements	155
2020	Traffic Signals	Traffic Signal Pre-Emption Equipment	480
2020	Traffic Signals	New traffic signal installations and improvements at various intersections throughout the City	1,567
2020	Traffic Signals	Traffic System and Intelligent Transportation System (ITS)	100
Total			29,640

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Other Engineering

Vehicle and Equipment Replacement

Year	Project	Description	Net Cost ('000's)
2011	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	1,820
2012	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	3,752
2013	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	3,739
2014	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	3,454
2015	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	3,733
2016	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	2,986
2017	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	3,765
2018	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	2,512
2019	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	2,163
2020	Vehicle & Equipment Replacement	Replacement of Corporate vehicles & equipment (excluding Fire & Transit) based on mileage or age.	2,479
Total			30,403

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Other Engineering

Replacement Details

2011 Replacements	
Equipment/Vehicle	
2 - 5 Ton Dump/Sander/Plow	1 - Tractor Utility
1 - 1 Ton Sign Truck	1 - Large Loader
1 - 1/2 Ton Pickup	22 - Riding Mowers
3 - 3/4 Ton Pick Up Trucks	1 - Animal Vehicle
1 - 1 Ton Pickup 4 X 4	3 - Compressors
2 - 3/4 Ton Vans	1 - Trailer
1 - 1 Ton Van	1 - Min Van- Passenger /1/2 Ton Van
2 - Security Vehicles	2 - Ice Resurfacers
1 - Compact Car	4 - Golf Course Equipment

Works Yards Space

Year	Project	Description	Net Cost ('000's)
2013	Works Yards	North Central Works Yard Feasibility Study	50
2014	Works Yards	North Central Works Yard Feasibility Study	50
2015	Works Yards	North Central Works Yard Land Design	100
2016	Works Yards	North Central Works Yard Land Acquisition	4,860
2018	Works Yards	North Central Works Yard Land Construction	6,100
Total			11,160

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses
2011 - 2020 Net Capital Expenditures By Sub-Program
 (000's)

	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Crack Sealing	100	100	100	100	100	100	100	100	100	100	1,000
Parking Lot Rehabilitation	0	50	0	50	0	50	0	50	0	50	250
Roadway Infrastructure Review	0	600	0	0	600	0	0	600	0	0	1,800
Road Rehabilitation	22,808	14,624	16,124	23,750	23,750	23,750	23,750	23,750	23,750	23,750	219,805
Total Net Expenditures	22,908	15,374	16,224	23,900	24,450	23,900	23,850	24,500	23,850	23,900	222,855

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Road Rehabilitation

Crack Sealing

Year	Project	Description	Net Cost ('000's)
2011	Crack Sealing	Preventative maintenance funding for road crack sealing	100
2012	Crack Sealing	Preventative maintenance funding for road crack sealing	100
2013	Crack Sealing	Preventative maintenance funding for road crack sealing	100
2014	Crack Sealing	Preventative maintenance funding for road crack sealing	100
2015	Crack Sealing	Preventative maintenance funding for road crack sealing	100
2016	Crack Sealing	Preventative maintenance funding for road crack sealing	100
2017	Crack Sealing	Preventative maintenance funding for road crack sealing	100
2018	Crack Sealing	Preventative maintenance funding for road crack sealing	100
2019	Crack Sealing	Preventative maintenance funding for road crack sealing	100
2020	Crack Sealing	Preventative maintenance funding for road crack sealing	100
Total			1,000

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Road Rehabilitation

Parking Lot Rehabilitation

Year	Project	Description	Net Cost ('000's)
2012	Parking Lot Rehabilitation	Ongoing funding to rehabilitate parking lots.	50
2014	Parking Lot Rehabilitation	Ongoing funding to rehabilitate parking lots.	50
2016	Parking Lot Rehabilitation	Ongoing funding to rehabilitate parking lots.	50
2018	Parking Lot Rehabilitation	Ongoing funding to rehabilitate parking lots.	50
2020	Parking Lot Rehabilitation	Ongoing funding to rehabilitate parking lots.	50
Total			250

Roadway Infrastructure Review

Year	Project	Description	Net Cost ('000's)
2012	Roadway Infrastructure Review	Ongoing funding to update the pavement management system data	600
2015	Roadway Infrastructure Review	Ongoing funding to update the pavement management system data	600
2018	Roadway Infrastructure Review	Ongoing funding to update the pavement management system data	600
Total			1,800

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Road Rehabilitation

Road Rehabilitation

Year	Project	Description	Net Cost ('000's)
2011	Road Rehabilitation	Various Industrial Roads	1,160
2011	Road Rehabilitation	Various Major Roads	5,217
2011	Road Rehabilitation	Various Residential Roads	16,431
2012	Road Rehabilitation	Various Industrial Roads	7,038
2012	Road Rehabilitation	Various Major Roads	1,461
2012	Road Rehabilitation	Various Residential Roads	5,875
2012	Road Rehabilitation	Low Impact Development Features	250
2013	Road Rehabilitation	Various Industrial Roads	7,471
2013	Road Rehabilitation	Various Major Roads	2,553
2013	Road Rehabilitation	Various Residential Roads	5,850
2013	Road Rehabilitation	Low Impact Development Features	250
2014	Road Rehabilitation	Various Industrial Roads	7,403
2014	Road Rehabilitation	Various Major Roads	10,223
2014	Road Rehabilitation	Various Residential Roads	5,875
2014	Road Rehabilitation	Low Impact Development Features	250
2015	Road Rehabilitation	Various Industrial Roads	7,403
2015	Road Rehabilitation	Various Major Roads	10,223
2015	Road Rehabilitation	Various Residential Roads	5,875
2015	Road Rehabilitation	Low Impact Development Features	250
2016	Road Rehabilitation	Various Industrial Roads	5,875

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Road Rehabilitation

Road Rehabilitation

Year	Project	Description	Net Cost ('000's)
2016	Road Rehabilitation	Various Major Roads	10,223
2016	Road Rehabilitation	Various Residential Roads	7,403
2016	Road Rehabilitation	Low Impact Development Features	250
2017	Road Rehabilitation	Various Industrial Roads	7,471
2017	Road Rehabilitation	Various Major Roads	10,179
2017	Road Rehabilitation	Various Residential Roads	5,850
2017	Road Rehabilitation	Low Impact Development Features	250
2018	Road Rehabilitation	Various Industrial Roads	7,403
2018	Road Rehabilitation	Various Major Roads	10,223
2018	Road Rehabilitation	Various Residential Roads	5,875
2018	Road Rehabilitation	Low Impact Development Features	250
2019	Road Rehabilitation	Various Industrial Roads	7,403
2019	Road Rehabilitation	Various Major Roads	10,223
2019	Road Rehabilitation	Various Residential Roads	5,875
2019	Road Rehabilitation	Low Impact Development Features	250
2020	Road Rehabilitation	Various Industrial Roads	7,403
2020	Road Rehabilitation	Various Major Roads	10,223
2020	Road Rehabilitation	Various Residential Roads	5,875
2020	Road Rehabilitation	Low Impact Development Features	250
Total			219,805

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Road Rehabilitation

Residential Road Resurfacing

Year	Street	From	To
2011	Carlis Place	Elmwood Avenue South	End
2011	Elmwood Avenue South	Lakeshore Road East	South End
2011	Forest Avenue	Rosewood Avenue	Briarwood Avenue
2011	Marf Avenue	Cantebury Road	East End
2011	Algonquin Drive	Birchview Drive	End
2011	Birchview Drive	Indian Road	Springhill Drive
2011	Cayente Place	Fair Birch Drive	End
2011	Cloverbrae Crescent	Springhill Drive	Springhill Drive
2011	Fair Birch Drive	Birchview Drive	End
2011	Mirada Place	Fair Birch Drive	End
2011	Solona Crescent	Indian Road	End
2011	Wenleigh Court	Cloverbrae Crescent	End
2011	Wildfield Crescent	Springhill Drive	Springhill Drive
2011	Andros Boulevard	Johnson's Lane	End
2011	Ithaca Court	Kos Boulevard	End
2011	Johnson's Lane	Lakeshore Road West	Andros Boulevard.
2011	Kos Boulevard	West Leg only	East Leg only
2011	Lefkas Court	Kos Boulevard	End
2011	Nesdale Court	Kos Boulevard	Entire
2011	Silverbirch Trail	Lakeshore Road West	Andros Boulevard
2011	Zante Crescent	Andros Boulevard	Andros Boulevard
2011	Promenade Court	Melton Drive	End
2011	Stewart Crescent	Annapolis Avenue	Whitney Drive
2011	Stir Crescent	Melton Drive	Melton Drive
2011	Abington Avenue	Hansall Street	Capulet Court
2011	Capulet Court	Valleyfield Drive	End

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Road Rehabilitation

Residential Road Resurfacing

Year	Street	From	To
2011	Spaceway Court	Abington Ave	End
2011	Valleyfield Drive	Chantenay Drive	Hansall Street
2011	Callum Avenue	Paisley Boulevard	Louis Drive
2011	Carlanne Court	Fieldstone Road	End
2011	Carlanne Place	Fieldstone Road	North End
2011	Cavell Drive	Louis Drive	Cullen Avenue
2011	Cullen Avenue	Entire	Entire
2011	Culver Way	Morrison Avenue	Louis Drive
2011	Hillfield Court	Stillmeadow	End
2011	Isabella Avenue	Stavebank Road	East End
2011	Louis Drive	Cavell Drive	East End
2011	Louis Drive	Mavis Road	Carlanne Place
2011	Medhat Drive	Isabella Avenue	North End
2011	Pinemeadow Avenue	Cullen Avenue	Louis Drive
2011	Chisholm Avenue	Hurondale Drive	Morrison Avenue
2011	Chisholm Court	Morrison Avenue	End
2011	Damian Way	Queensway West	Morrison Avenue
2011	Fieldstone Road	Damian Way	Carlanne Place
2011	Logwood Court	Morrison Avenue	End
2011	Morrison Avenue	Fieldstone Road	Paisley Boulevard
2011	Pollard Court	Morrison Avenue	End
2011	Pollard Drive	Paisley Boulevard	Morrison Ave
2011	Deer's Wold	King Forrest Drive	Sherwood Forrest Circle

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Road Rehabilitation

Residential Road Resurfacing

Year	Street	From	To
2011	Fountains Abbey	Sherwood Forest Circle	End
2011	Bosack Court	Leanne Boulevard	End
2011	Kenna Court	Fowler Lane	End
2011	Gulleden Drive	Winding Trail	Williamsport Drive
2011	Williamsport Drive	Havenwood Drive	Havenwood Drive
2011	Winding Trail	Dixie Road	Gulleden Drive
2011	Autumn Harvest Drive	Runningbrook Drive	Burnhamthorpe Road
2011	Cedartree Crescent	Golden OrchaRoad Drive	Golden OrchaRoad Drive
2011	Corrigan Drive	Rymal Road	Rymal Road
2011	Greta Gate	Rymal Road	End
2011	Haines Road	Rymal Road	Barricade
2011	Lednier Terrace	Rymal Road	Rymal Road
2011	Lonefeather Crescent	Golden Orchard Drive	Golden Orchard Drive
2011	McCarthy Court	Rymal Road	Rymal Road
2011	Riley Court	Haines Road	End
2011	Burdock Place	Fairview Road East	End
2011	Fairview Road	Hanson Road	Mississauga Valley
2011	Blairholm Avenue	Stainton Drive	End
2011	Loconder Court	The Credit Woodlands	End
2011	Redstart Drive	Dundas Street	Sir John's Homestead
2011	Sir John's Homestead	Redstart Drive	Dundas Street
2011	Solitaire Court	Sir John's Homestead	End
2011	Hornbeam Crescent	The Collegeway	Chokecherry Crescent
2011	Camaro Court	Forest Fire Crescent	End
2011	Emerald Gate	Forest Fire Lane	Willowbank Trail

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Road Rehabilitation

Residential Road Resurfacing

Year	Street	From	To
2011	Forest Fire Crescent	Willowbank Trail	Willowbank Trail
2011	Forest Fire Lane	Willowbank Trail	End
2011	Colter Court	Sawmill Valley Drive	End
2011	Coppersmith Court	Folkway Drive	End
2011	Grindstone Court	Sawmill Valley Drive	End
2011	Musket Court	Folkway Drive	End
2011	Ploughshare Court	Sawmill Valley Drive	End
2011	Stonemason	Sawmill Valley Drive	Sawmill Valley Drive
2011	Key Court	Sigsbee Drive	End
2011	Sigsbee Drive	Brandon Gate Drive	Brandon Gate Drive
2011	Churchill Avenue	Airport Road	Lancaster Avenue
2011	Etude Drive	Justine Drive	West End
2011	Jolliffe Avenue	Goreway Drive	Cambrett Drive
2011	Lully Court	Clara Drive	End
2011	Merrit Avenue	Lancaster Avenue	End
2011	Moodie Court	Entire	Entire
2011	Aldergrove Court	Bayberry Drive	End
2011	Collista Court	Ganymede Road	End
2011	Europa Court	Ganymede Road	End
2011	Farmstead Lane	Britannia Road	Miller's Groove
2011	Ganymede Road	Edenwood Drive	122m North of Collista
2011	Harlow Road	Edenwood Drive	End
2011	Keynes Court	Farmstead Lane	End
2011	Plumtree Crescent	Vanderbilt Road	Vanderbilt Road
2011	Plumtree Court	Vanderbilt Road	End
2011	Runcorn Row	Edenwood Drive	End
2011	Stevenage Court	Edenwood Drive	West End

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Road Rehabilitation

Major, Collector & Industrial Road Rehabilitation

	Street	From	To
2011	Camilla Road	North Service Road	Dundas Street East
2011	Cliff Road	North Service Road	Dundas Street East
2011	Leanne Boulevard	North Service Road	Erin Mills Parkway
2011	Kariya Drive	Burnhamthorpe Road	Elm Drive
2011	Flavelle Boulevard 2 legs	Speakman Drive	North Service Road
2011	Hadwen Road	Speakman Drive	North Service Road
2011	Erindale Station Road	Burnhamthorpe Road	Railway Tracks
2011	The Credit Woodlands	Burnhamthorpe Road West	Erinmore Drive
2011	City Centre Drive	Living Arts Drive	Kariya Gate
2011	Ninth Line	Derry Road	401 Bridge
2011	Kariya Gate	Burnhamthorpe Road	City Centre Drive

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses 2011 - 2020 Net Capital Expenditures By Sub-Program (000's)

	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	Total
Storm Drainage	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Channelization	190	1,030	0	0	0	0	0	0	0	0	1,220
Culvert Improvement	1,430	0	5,130	3,360	0	0	0	0	0	0	9,920
Drainage	0	0	0	0	0	0	0	0	0	0	0
Erosion Control	1,070	7,100	3,170	2,820	1,480	2,890	5,010	4,950	4,470	2,340	35,300
Flood Relief	367	171	0	0	0	0	0	0	0	0	538
Storm Sewer	0	0	0	0	1,750	0	0	0	0	0	1,750
Storm Sewer Oversizing	200	200	200	200	200	200	200	200	200	200	2,000
Study	3,100	450	330	250	400	0	0	80	0	0	4,610
Storm Water Management (SWM) Facilities	620	8,360	10,880	5,600	4,280	6,660	80	80	80	1,300	37,940
Total Net Expenditures	6,977	17,311	19,710	12,230	8,110	9,750	5,290	5,310	4,750	3,840	93,278

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Storm Drainage

Storm Drainage

Year	Project	Description	Flood Control	Erosion Control	Relief Storm Sewer	Culvert Improvement	Channel Improvement	Quality and/or Quantity Facilities	Other	Net Cost ('000's)
2011	Sheridan Creek Erosion Control - Downstream of Benedet Drive	Construction		X						130
2011	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200
2011	Applewood Creek Erosion Control - Behind Dixie Outlet Mall	Design		X						50
2011	Cooksville Creek Flood Protection - Dyking downstream of Central Parkway East	Design	X							50
2011	Cooksville Creek Channel Improvement - Mississauga Valley Boulevard to Canadian Pacific Railway	Design					X			190
2011	Cooksville Creek Crossing Improvement - Canadian National Railway	Design				X				230
2011	Cooksville Creek Crossing Improvement - Canadian Pacific Railway	Design				X				400
2011	Cooksville Creek Crossing Improvement - Queensway East	Design				X				360
2011	Cooksville Creek Erosion Control - Rathburn Road West to Absolute Avenue	Design		X						240
2011	Cooksville Creek Erosion Control - Burnhamthorpe Road East to Mississauga Valley Boulevard, East Branch	Design		X						190
2011	Retrofit - Mullet Creek Arch Storm Water Management Pond #5401 - West of Argentia Road and North of Derry Road West	Design						X		540
2011	Sawmill Creek Erosion Control - Upstream of The Collegeway	Design		X						170
2011	Sawmill Creek Erosion Control - Erin Mills Parkway to Burnhamthorpe Road West	Design		X						210
2011	Applewood Creek Crossing Improvement - Culvert under Lakeshore Road East	Design/Construction				X				440
2011	Minor Erosion Control Works - Various Locations	Design/Construction		X						80
2011	Update and Enhancement of the Rain Gauge Network	Install							X	67
2011	Basement Flood Remediation and Action Plan - Phase 2, Cooksville Creek Area	Study	X							250
2011	Cooksville Creek Pre-Engineering	Study					X			3,000

Appendix 5 – Capital Forecast Summary 2011-2020

Business Plan & Budget Book 2011-2014

Roads, Storm Drainage and Watercourses - Project Listing

Program: Storm Drainage

Storm Drainage

Year	Project	Description	Flood Control	Erosion Control	Relief Storm Sewer	Culvert Improvement	Channel Improvement	Quality and/or Quantity Facilities	Other	Net Cost ('000's)
2011	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
2011	Storm Sewer Network Modelling - Pilot Watershed	Study							Minor System	100
2012	Cooksville Creek Channel Improvement - Mississauga Valley Boulevard to Canadian Pacific Railway	Construction					X			1,030
2012	Cooksville Creek Erosion Control - North of Dundas Street East behind Jaguar Valley Drive	Construction		X						950
2012	Mullet Creek Erosion Control - Burnhamthorpe Road West to behind Woodchuck Lane	Construction		X						1,490
2012	Retrofit - Mullet Creek Arch Storm Water Management Pond #5401 - West of Argentia Road & North of Derry Road West	Construction						X		3,590
2012	Sawmill Creek Erosion Control - Burnhamthorpe Road West to The Collegeway	Construction		X						1,890
2012	Sawmill Creek Erosion Control - Erin Mills Parkway to Burnhamthorpe Road West	Construction		X						950
2012	Sheridan Creek Erosion Control - Clarkson Road to Meadow Wood Road	Construction		X						1,340
2012	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200
2012	Retrofit - Mullet Creek Storm Water Management Pond #5402 - North of Derry Road West and Sentex Drive	Design						X		1,140
2012	Cooksville Creek Flood Protection -Dyking downstream of Central Parkway East	Design/Construction	X							150
2012	Minor Erosion Control Works - Various Locations	Design/Construction		X						80

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Roads, Storm Drainage and Watercourses - Project Listing

Program: Storm Drainage

Storm Drainage

Year	Project	Description	Flood Control	Erosion Control	Relief Storm Sewer	Culvert Improvement	Channel Improvement	Quality and/or Quantity Facilities	Other	Net Cost ('000's)
2012	Retrofit - Cooksville Creek Storm Water Management Pond #3701, Phase 1- North of Bristol Road between McLaughlin Road and Hurontario Street	Design/Construction						X		3,500
2012	Update and Enhancement of the Rain Gauge Network	Install							X	21
2012	City-wide Watercourse Erosion and Rehabilitation Study	Study		X						400
2012	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
2012	Storm Sewer Network Modelling - City wide Model	Study							Minor System	250
2012	Storm Water Financing Study and Implementation	Study							X	200
2012	Storm Water Management Pond Dredging and Rehabilitation - Pre-Engineering	Study						X		50
2013	Land Acquisition - Sawmill Creek (Glen Erin Brook) Storm Water Management Pond #5805 - North of Highway 403, west of Winston Churchill Boulevard	Acquire						X		2,240
2013	Applewood Creek Erosion Control - Behind Dixie Outlet Mall	Construction		X						190
2013	Cooksville Creek Crossing Improvement - Canadian National Railway	Construction				X				2,290
2013	Cooksville Creek Erosion Control - Willa Road to Orano Avenue	Construction		X						950
2013	Cooksville Creek Erosion Control -Burnhamthorpe Road East to Mississauga Valley Boulevard, East Branch	Construction		X						870
2013	Credit River Erosion Control - South of Dundas Street West behind Jarvis Street	Construction		X						800
2013	Retrofit - Mullet Creek Storm Water Management Pond #5402 - North of Derry Road West and Sentex Drive	Construction						X		7,610

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Program: Storm Drainage

Storm Drainage

Year	Project	Description	Flood Control	Erosion Control	Relief Storm Sewer	Culvert Improvement	Channel Improvement	Quality and/or Quantity Facilities	Other	Net Cost ('000's)
2013	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200
2013	Cooksville Creek Erosion Control - King Street East to North of Paisley Boulevard East	Design		X						100
2013	Cooksville Creek Erosion Control -Highway 403 to Hurontario Street	Design		X						70
2013	Credit River Erosion Control - South of Queen Elizabeth Way to behind Pinetree Crescent	Design		X						110
2013	Cooksville Creek Crossing Improvement - Queensway East	Design/Construction				X				2,840
2013	Minor Erosion Control Works - Various Locations	Design/Construction		X						80
2013	Sawmill Creek (Glen Erin Brook) Storm Water Management Pond #5805 - North of Highway 403, west of Winston Churchill Boulevard	Design/Construction						X		950
2013	Development Charges Update	Study							X	80
2013	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
2013	Storm Sewer Network Modelling - City wide model	Study							Minor System	250
2014	Cooksville Creek Erosion Control -Highway 403 to Hurontario Street	Construction		X						250
2014	Cooksville Creek Erosion Control -Rathburn Road West to Absolute Avenue	Construction		X						1,350
2014	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200

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Year	Project	Description	Flood Control	Erosion Control	Relief Storm Sewer	Culvert Improvement	Channel Improvement	Quality and/or Quantity Facilities	Other	Net Cost ('000's)
2014	Cooksville Creek Erosion Control - Cawthra Creek Diversion, North of Lakeshore Road East	Design		X						50
2014	Cooksville Creek Erosion Control - Canadian Pacific Railway to Kirwin Avenue	Design		X						80
2014	Etobicoke Creek Erosion Control - Eglinton Avenue East to Hydro Corridor	Design		X						80
2014	Meadowvale Area Storm Water Management Pond #4503 - North of Highway 401, East of Credit River	Design						X		130
2014	Mimico Creek Erosion Control - Etude Drive to Derry Road East	Design		X						60
2014	Mullet Creek Erosion Control - Tannery Street to Thomas Street	Design		X						150
2014	Mullet Creek Erosion Control - Wabukayne Tributary, Downstream of Erin Millis Parkway	Design		X						250
2014	Mullet Creek Erosion Control - Wabukayne Tributary, Upstream of Canadian Pacific Railway	Design		X						470
2014	Cooksville Creek Crossing Improvement - Canadian Pacific Railway	Design/Construction				X				3,360
2014	Minor Erosion Control Works - Various Locations	Design/Construction		X						80
2014	Retrofit - Little Etobicoke Creek Timberlea Storm Water Management Pond #3602	Design/Construction						X		5,190
2014	SWM Pond Dredging and Rehabilitation - Pond 2601A (Eastgate Business Park)	Design/Construction						X		200
2014	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
2014	Storm Sewer Network Modelling - City wide model	Study							Minor System	250

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Year	Project	Description	Flood Control	Erosion Control	Relief Storm Sewer	Culvert Improvement	Channel Improvement	Quality and/or Quantity Facilities	Other	Net Cost ('000's)
2015	Cooksville Creek Erosion Control - Cawthra Creek Diversion, North of Lakeshore Road East	Construction		X						160
2015	Cooksville Creek Erosion Control - King Street East to North of Paisley Boulevard East	Construction		X						380
2015	Credit River Erosion Control - South of Queen Elizabeth Way to behind Pinetree Crescent	Construction		X						530
2015	Meadowvale area Storm Water Management Pond #4503 - North of Highway 401, East of Credit River	Construction						X		850
2015	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200
2015	Cooksville Creek Erosion Control - Queen Elizabeth Way to Elaine Trail	Design		X						180
2015	Wolfedale Creek Erosion Control - North and South of Central Parkway West	Design		X						150
2015	Clearview Creek Storm Water Management Pond #0401 - South of Lakeshore Road West	Design/Construction						X		2,600
2015	Minor Erosion Control Works - Various Locations	Design/Construction		X						80
2015	Square One Storm Sewer Repair -Huronario Street to Cooksville Creek	Design/Construction							Minor System	1,750
2015	Storm Water Management Dredging and Rehabilitation - Ponds 5701 (Churchill Meadows), 4403 (Fletchers Creek FFP3) and 4402 (Shipp-Higgins)	Design/Construction						X		700
2015	Mississauga Storm Water Quality Strategy Update	Study						X		400
2015	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
2015	Storm Water Management Pond Dredging and Rehabilitation - Pre-Engineering	Study						X		50

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Year	Project	Description	Flood Control	Erosion Control	Relief Storm Sewer	Culvert Improvement	Channel Improvement	Quality and/or Quantity Facilities	Other	Net Cost ('000's)
2016	Land Acquisition - Avonhead Creek Storm Water Management Facility #0402	Acquire						X		2,160
2016	Land Acquisition - Lakeshore Creek Storm Water Management Facility #0403	Acquire						X		2,270
2016	Cooksville Creek Erosion Control - Canadian Pacific Railway to Kirwin Avenue	Construction		X						410
2016	Etobicoke Creek Erosion Control - Eglinton Avenue East to Hydro Corridor	Construction		X						270
2016	Mimico Creek Erosion Control - Etude Drive to Derry Road East	Construction		X						200
2016	Mullet Creek Erosion Control - Tannery Street to Thomas Street	Construction		X						860
2016	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200
2016	Credit River Erosion Control - North of Canadian National Railway, behind Stavebank Road and behind Mississauga Road	Design		X						450
2016	Credit River Erosion Control - West of Creditview Road, behind Kenninghall Boulevard	Design		X						170
2016	Credit River Erosion Control - North of Queen Elizabeth Way, behind Mississauga Crescent	Design		X						170
2016	Mullet Creek Erosion Control - Quenippenon Tributary, Upstream of Erin Mills Parkway to Middlebury Drive	Design		X						280
2016	Avonhead Creek Storm Management Facility #0402 - North of Lakeshore Road West, East of Hazlehurst Road	Design/Construction						X		520
2016	Lakeshore Creek Storm Water Management Pond #0403 - Lakeshore Road West at Clarkson	Design/Construction						X		930

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2016	Minor Erosion Control Works - Various Locations	Design/Construction		X						80
2016	Storm Water Management Pond Dredging and Rehabilitation - Ponds 5702 (Churchill Meadows), 0801 (Mattamy Lorne Park), 2201 (Mary Fix Creek) and 5301 (Fieldrun Subdivision)	Design/Construction						X		700
2016	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
2017	Mullet Creek Erosion Control - Wabukayne Tributary, Upstream of Canadian Pacific Railway	Construction		X						2,740
2017	Mullet Creek Erosion Control - Wabukayne Tributary, Downstream of Erin Millis Parkway	Construction		X						1,370
2017	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200
2017	Wolfedale Creek Erosion Control - North and South of Central Parkway West	Construction		X						730
2017	Cooksville Creek Erosion Control - Rhonda Valley to Mississauga Valley Boulevard	Design		X						90
2017	Minor Erosion Control Works - Various Locations	Design/Construction		X						80
2017	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
2018	Cooksville Creek Erosion Control - Queen Elizabeth Way to Elaine Trail	Construction		X						1,010
2018	Cooksville Creek Erosion Control - Rhonda Valley to Mississauga Valley Boulevard	Construction		X						420
2018	Credit River Erosion Control - North of Queen Elizabeth Way, behind Mississauga Crescent	Construction		X						880
2018	Mullet Creek Erosion Control - Quenippenon Tributary, Upstream of Erin Mills Parkway to Middlebury Drive	Construction		X						1,660

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2018	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200
2018	Cooksville Creek Erosion Control - Kingsbridge Garden Circle to Highway 403	Design		X						110
2018	Mary Fix Erosion Control - Old River Road to the Credit River	Design		X						100
2018	Tecumseh Creek Erosion Control - South of Indian Road	Design		X						140
2018	Etobicoke Creek Erosion Control - North of Eglinton Avenue	Design/Construction		X						150
2018	Minor Erosion Control Works - Various Locations	Design/Construction		X						80
2018	City-wide Watercourse Erosion and Rehabilitation Study	Study		X						400
2018	Development Charges Update	Study							X	80
2018	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
2019	Credit River Erosion Control - West of Creditview Road, behind Kenninghall Boulevard	Construction		X						880
2019	Credit River Erosion Control - North of Canadian National Railway, behind Stavebank Road and behind Mississauga Road	Construction		X						2,440
2019	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200
2019	Applewood Creek Erosion Control - Canadian National Railway to Lakeshore Road	Design/Construction		X						460
2019	Minor Erosion Control Works - Various Locations	Design/Construction		X						80
2019	Mullet Creek Erosion Control - GO Transit to Downstream of Erin Centre Boulevard	Design/Construction		X						610

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2019	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
2020	Minor Erosion Control Works - Various Locations	Construction		X						80
2020	Storm Sewer Oversizing - Various Locations	Construction							Minor System	200
2020	Cooksville Creek Storm Water Management Pond #2101 - City Centre at Mississauga Valley Boulevard and Central Parkway East	Design/Construction						X		1,220
2020	Etobicoke Creek Erosion Control - Downstream of Queen Elizabeth Way, adjacent to Toronto Golf Club	Design/Construction		X						1,480
2020	Etobicoke Creek Erosion Control - Upstream of Canadian National Railway, adjacent to Toronto Golf Club	Design/Construction		X						200
2020	Etobicoke Creek Erosion Control - Upstream and Downstream of Canadian National Railway, south of Dundas Street East	Design/Construction		X						580
2020	Monitoring and Minor Modification of Storm Water Management Facilities - Various Locations	Study						X		80
Total										93,278