



# **APPENDIX E**

# **COST ESTIMATES**

# Hamilton Garner/Rymal Road Widening Road Construction Estimates

Garner/Rymal Item	Unit	Unit Prices	Option 1		Option 2		Option 2A	
			Quantity	Cost	Quantity	Cost	Quantity	Cost
<b>Grading</b>								
Earth Excavation (Grading)	m3	\$16	130,853	\$2,093,644	67,816	\$1,085,057	59,414	\$950,622
Asphalt Surface Course	tonne	\$114	16,812	\$1,916,584	16,825	\$1,918,012	14,760	\$1,682,618
Asphalt Base Course	tonne	\$83	40,714	\$3,379,234	34,846	\$2,892,235	34,956	\$2,901,325
Granular A	tonne	\$26	37,031	\$962,812	28,582	\$743,134	28,740	\$747,235
Granular B	tonne	\$21	123,437	\$2,592,185	95,274	\$2,000,746	95,799	\$2,011,785
Concrete Sidewalk	m2	\$57	21,075	\$1,201,265	21,560	\$1,228,944	20,178	\$1,150,144
Curb & Gutter, New	m	\$64	11,761	\$752,677	12,514	\$800,882	12,527	\$801,724
Removal of Asphalt Pavement (Partial Depth)	m2	\$2.5	59,990	\$149,975	59,990	\$149,975	59,990	\$149,975
Curb & Gutter, Removal	m	\$12	1,726	\$20,717	1,726	\$20,717	1,726	\$20,717
Traffic Control	LS	\$310,000	1	\$310,000	1	\$310,000	1	\$310,000
Permanent Pavement Markings	LS		1	\$200,000	1	\$150,000	1	\$150,000
Temporary Concrete Barrier	m	\$59	11,761	\$693,874	12,514	\$738,313	12,527	\$739,090
Temporary Concrete Barrier, Relocation	m	\$28	11,761	\$329,296	12,514	\$350,386	12,527	\$350,754
Temporary Energy Attenuator	Each	\$7,200	27	\$194,400	27	\$194,400	27	\$194,400
Temporary Energy Attenuator, Relocation	Each	\$4,100	27	\$110,700	27	\$110,700	27	\$110,700
Environmental Mitigation Measures	LS	\$310,000	1	\$310,000	1	\$310,000	1	\$310,000
Landscaping	LS	\$103,000	1	\$103,000	1	\$103,000	1	\$103,000
<b>Drainage</b>								
300 mm DIA. PVC CB Leads	m	\$34	2,685	\$91,290	2,130	\$72,420	2,135	\$72,590
600 mm x 600 mm Manholes Catch Basins and Ditch Inlets	Each	\$1,846	200	\$369,200	200	\$369,200	200	\$369,200
600 mm x 1200 mm Manholes Catch Basins and Ditch Inlets	Each	\$2,902	20	\$58,040	20	\$58,040	20	\$58,040
1200 mm Manholes Catch Basins and Ditch Inlets	Each	\$3,275	10	\$32,750	10	\$32,750	10	\$32,750
1500 mm Manholes Catch Basins and Ditch Inlets	Each	\$4,980	3	\$14,940	3	\$14,940	3	\$14,940
1800 mm Manholes Catch Basins and Ditch Inlets	Each	\$7,364	16	\$117,824	16	\$117,824	16	\$117,824
400 mm Pipe Sewer	m	\$226	325	\$73,473	325	\$73,473	325	\$73,473
500 mm Pipe Sewer	m	\$267	496	\$132,352	496	\$132,352	496	\$132,352
600 mm Pipe Sewer	m	\$267	3,711	\$990,730	3,711	\$990,730	3,711	\$990,730
<b>Electrical</b>								
Permanent Illumination (Est. # of Poles)	Each	\$8,250	247	\$2,041,074	245	\$2,017,375	244	\$2,014,392
Traffic Signals (3-leg)	Each	\$155,000	5	\$775,000	5	\$775,000	5	\$775,000
Traffic Signals (4-leg)	Each	\$206,000	1	\$206,000	1	\$206,000	1	\$206,000
<b>Structure</b>								
N/A								
<b>Sub-Total (Grading, Drainage, Electrical, Structures)</b>				\$20,223,036		\$17,966,605		\$17,541,380
Contingency (15%)		15%	15%	\$3,033,455	15%	\$2,694,991	15%	\$2,631,207
<b>TOTAL (Grading, Drainage, Electrical, Structure)</b>				\$23,256,492		\$20,661,595		\$20,172,587
Construction Administration, Sundry, Force Account (10%)	LS	10%	10%	\$2,325,649	10%	\$2,066,160	10%	\$2,017,259
<b>TOTAL CONSTRUCTION COST ESTIMATE</b>				\$25,582,141		\$22,727,755		\$22,189,846
Utility Relocation	LS	\$800,000	1	\$800,000	1	\$800,000	1	\$800,000
Property Acquisition								
<b>GRAND TOTAL</b>				\$26,382,141		\$23,527,755		\$22,989,846

## Hamilton Garth Road Widening Road Construction Estimates

Garth			Option 1		Option 2		Option 2A	
Item	Unit	Unit Prices	Quantity	Cost	Quantity	Cost	Quantity	Cost
<b>Grading</b>								
Earth Excavation (Grading)	m3	\$16	32,713	\$523,411	16,954	\$271,264	14,853	\$237,655
Asphalt Surface Course	tonne	\$114	8,575	\$977,505	7,298	\$831,948	7,503	\$855,316
Asphalt Base Course	tonne	\$83	3,492	\$289,822	3,354	\$278,354	3,065	\$254,384
Granular A	tonne	\$26	8,097	\$210,529	6,259	\$162,725	6,554	\$170,400
Granular B	tonne	\$21	26,991	\$566,809	20,862	\$438,107	21,846	\$458,768
Concrete Sidewalk	m2	\$57	2,508	\$142,964	2,960	\$168,706	2,571	\$146,541
Curb & Gutter, New	m	\$64	2,501	\$160,042	2,430	\$155,524	2,471	\$158,153
Removal of Asphalt Pavement (Partial Depth)	m2	\$2.5	11,806	\$29,515	11,806	\$29,515	11,806	\$29,515
Curb & Gutter, Removal	m	\$12	605	\$7,260	605	\$7,260	605	\$7,260
Traffic Control	LS	\$310,000	1	\$310,000	1	\$310,000	1	\$310,000
Permanent Pavement Markings	LS		1	\$50,000	1	\$37,500	1	\$37,500
Temporary Concrete Barrier	m	\$59	1,185	\$69,917	1,193	\$70,364	1,239	\$73,127
Temporary Concrete Barrier, Relocation	m	\$28	1,185	\$33,181	1,193	\$33,393	1,239	\$34,704
Temporary Energy Attenuator	Each	\$7,200	10	\$72,000	10	\$72,000	10	\$72,000
Temporary Energy Attenuator, Relocation	Each	\$4,100	10	\$41,000	10	\$41,000	10	\$41,000
Environmental Mitigation Measures	LS	\$310,000	1	\$310,000	1	\$310,000	1	\$310,000
Landscaping	LS	\$103,000	1	\$103,000	1	\$103,000	1	\$103,000
<b>Drainage</b>								
300 mm DIA. PVC CB Leads	m	\$34	180	\$6,120	180	\$6,120	180	\$6,120
600 mm x 600 mm Manholes Catch Basins and Ditch Inlets	Each	\$1,846	20	\$36,920	20	\$36,920	20	\$36,920
600 mm x 1200 mm Manholes Catch Basins and Ditch Inlets	Each	\$2,902	4	\$11,608	4	\$11,608	4	\$11,608
1200 mm Manholes Catch Basins and Ditch Inlets	Each	\$3,275	5	\$16,375	5	\$16,375	5	\$16,375
1500 mm Manholes Catch Basins and Ditch Inlets	Each	\$4,980	7	\$34,860	7	\$34,860	7	\$34,860
1800 mm Manholes Catch Basins and Ditch Inlets	Each	\$7,364	3	\$22,092	3	\$22,092	3	\$22,092
400 mm Pipe Sewer	m	\$226	0	\$0	0	\$0	0	\$0
500 mm Pipe Sewer	m	\$267	178	\$47,627	178	\$47,627	178	\$47,627
600 mm Pipe Sewer	m	\$267	785	\$209,574	785	\$209,574	785	\$209,574
<b>Electrical</b>								
Permanent Illumination (Est. # of Poles)	Each	\$8,250	47	\$391,059	48	\$393,560	50	\$409,017
Traffic Signals (3-leg)	Each	\$155,000	0	\$0	0	\$0	0	\$0
Traffic Signals (4-leg)	Each	\$206,000	1	\$206,000	1	\$206,000	1	\$206,000
<b>Structure</b>								
N/A								
<b>Sub-Total (Grading, Drainage, Electrical, Structures)</b>				\$4,879,189		\$4,305,395		\$4,299,517
Contingency (15%)		15%	15%	\$731,878	15%	\$645,809	15%	\$644,927
<b>TOTAL (Grading, Drainage, Electrical, Structure)</b>				\$5,611,067		\$4,951,204		\$4,944,444
Construction Administration, Sundry, Force Account (10%)	LS	10%	10%	\$561,107	10%	\$495,120	10%	\$494,444
<b>TOTAL CONSTRUCTION COST ESTIMATE</b>				\$6,172,174		\$5,446,324		\$5,438,889
Utility Relocation	LS	\$200,000	3%	\$200,000	1	\$200,000	1	\$200,000
Property Acquisition								
<b>GRAND TOTAL</b>				\$6,372,174		\$5,646,324		\$5,638,889



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**SNC-Lavalin Inc.**  
**195 The West Mall**  
Toronto (Ontario)  
M9C 5K1 Canada  
Telephone: 416-252-5311  
FAX: 416-231-5356