

Appendix O

Cost

Hewitts - Cost Estimate - Civil Works

	Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie						
M1 Mapleview Drive East - Huronia Rd. to Country Ln						
PART A - REMOVALS						
	Clearing & Grubbing	m ²	18,627.52	\$ 1.00	\$ 18,627.52	
	Stripping (0.15m depth)	m ²	778.23	\$ 9.22	\$ 7,175.28	
	Removal and Disposal of Asphalt Pavement - Full Depth	m ²	8,643.90	\$ 10.00	\$ 86,439.02	
	Removal and Disposal of Existing Concrete Sidewalk	m ²		\$ 280.00	\$ -	
	Removal and Disposal of Existing Curb and Gutter	m		\$ 10.00	\$ -	
PART B - NEW CONSTRUCTION						
	Earth Excavation	m ³	16,326.54	\$ 16.50	\$ 269,387.91	
	Earth Grading (Fill)	m ³	667.77	\$ 15.75	\$ 10,517.38	
	Silt Fence	m	1,327.88	\$ 17.50	\$ 23,237.87	
	Granular A (150mm) Includes 1m behind C&G, below SW and Multi-Use-Trail	t	9,407.22	\$ 25.00	\$ 235,180.56	
	Granular B (500mm) Includes 1m behind C&G	t	22,621.64	\$ 21.00	\$ 475,054.48	
	Hot Mix HL1 (50mm)	t	2,686.20	\$ 80.00	\$ 214,896.25	
	Hot Mix HL4 (100mm)	t	4,951.04	\$ 120.00	\$ 594,124.93	
	Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	450.91	\$ 125.00	\$ 56,363.52	
	Curb and Gutter - All types	m	3,081.36	\$ 100.00	\$ 308,135.70	
	Concrete Sidewalk (150mm Thickness)	m ²	1,208.98	\$ 75.00	\$ 90,673.43	
	Culvert Extension	m	25.03	\$ 1,200.00	\$ 30,033.60	
	Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	29.44	\$ 81.25	\$ 2,391.76	
	Driveway Reinstatement (Gravel) Granular A - (150mm)	t		\$ 25.00	\$ -	
	Pavement Markings					
	10cm All Types (W/Y Solid or Dash)	m	6,094.00	\$ 5.00	\$ 30,470.00	
	Stop Bar	ea	5.00	\$ 300.00	\$ 1,500.00	
	Symbols (Dir Arrow, LT, HOV)	ea	40.00	\$ 200.00	\$ 8,000.00	
	LID	m	160.00	\$ 1,000.00	\$ 160,000.00	
	Property Acquisition (Residential)	m2	1,954.31	\$ 161.46	\$ 315,543.05	
	Property Acquisition (Commercial)	m2	5,980.98	\$ 150.69	\$ 901,274.18	
	Property Acquisition (Institutional)	m2	413.81	\$ 146.39	\$ 60,578.09	
SUBTOTAL						\$ 2,462,209.20
	Traffic Control					\$ 49,244.18
	Drainage (15 % of Subtotal)					\$ 369,331.38
	Minor Items (10 % of Subtotal)					\$ 246,220.92
	Landscape Items (2.5 % of Subtotal)					\$ 61,555.23
SUB-TOTAL CONSTRUCTION						\$ 3,188,560.92
	Contingency (25 % of Construction Sub-total)					\$ 797,140.23
	Engineering (13% of Construction Sub-total)					\$ 414,512.92
	Contract Administration (17% of Construction Sub-total)					\$ 542,055.36
	Utilities (10 % of Construction Subtotal)					\$ 318,856.09
Total - Civil Works						\$ 5,261,125.51
Rounded						\$ 5,270,000.00

Item	Unit	Qty.	Unit Price		Subtotal	Total
City of Barrie						
M2 Mapleview Drive East - Country Ln to Madelaine Dr.						
PART A - REMOVALS						
Clearing & Grubbing	m ²			\$ 1.00	\$ -	
Stripping (0.15m depth)	m ²	16,084.61		\$ 9.22	\$ 148,300.08	
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	9,426.68		\$ 10.00	\$ 94,266.75	
Removal and Disposal of Existing Concrete Sidewalk	m ²			\$ 280.00	\$ -	
Removal and Disposal of Existing Curb and Gutter	m			\$ 25.00	\$ -	
PART B - NEW CONSTRUCTION						
Earth Excavation	m ³	15,612.74		\$ 16.50	\$ 257,610.21	
Earth Grading (Fill) Includes Overpass embankment	m ³	12.79		\$ 15.75	\$ 201.44	
Silt Fence	m	473.44		\$ 17.50	\$ 8,285.25	
Granular A (150mm) Includes 1m behind C&G, below SW and Multi-Use-Trail	t	9,042.52		\$ 25.00	\$ 226,063.02	
Granular B (500mm) Includes 1m behind C&G	t	21,588.33		\$ 21.00	\$ 453,354.89	
Hot Mix HL1 (50mm)	t	2,539.82		\$ 80.00	\$ 203,185.56	
Hot Mix HL4 (100mm)	t	4,681.24		\$ 120.00	\$ 561,748.31	
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	450.94		\$ 125.00	\$ 56,366.93	
Curb and Gutter - All types	m	3,188.62		\$ 100.00	\$ 318,861.70	
Concrete Sidewalk (150mm Thickness)	m ²	1,281.51		\$ 75.00	\$ 96,112.88	
Culvert Extension	m			\$ 1,200.00	\$ -	
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	25.45		\$ 81.25	\$ 2,068.18	
Driveway Reinstatement (Gravel) Granular A - (150mm)	t	24.90		\$ 25.00	\$ 622.50	
Pavement Markings						
10cm All Types (W/Y Solid or Dash)	m	5,980.00		\$ 5.00	\$ 29,900.00	
Stop Bar	ea	6.00		\$ 300.00	\$ 1,800.00	
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	32.00		\$ 200.00	\$ 6,400.00	
LID	m	100.00		\$ 1,000.00	\$ 100,000.00	
Property Acquisition (Residential)	m2	8,091.36		\$ 161.46	\$ 1,306,430.99	
Property Acquisition (Commercial)	m2			\$ 150.69	\$ -	
Property Acquisition (Institutional)	m2	623.22		\$ 146.39	\$ 91,233.32	
SUBTOTAL						\$ 2,465,147.70
Traffic Control						\$ 49,302.95
Drainage (15 % of Subtotal)						\$ 369,772.15
Minor Items (10 % of Subtotal)						\$ 246,514.77
Landscape Items (2.5 % of Subtotal)						\$ 61,628.69
SUB-TOTAL CONSTRUCTION						\$ 3,192,366.27
Contingency (25 % of Construction Sub-total)						\$ 798,091.57
Engineering (13% of Construction Sub-total)						\$ 415,007.62
Contract Administration (17% of Construction Sub-total)						\$ 542,702.27
Utilities (10 % of Construction Subtotal)						\$ 319,236.63
Total - Civil Works						\$ 5,267,404.35
				Rounded		\$ 5,270,000.00

Item	Unit	Qty.	Unit Price		Subtotal		Total	
City of Barrie								
M3 Mapleview Drive East - Madelaine Dr. to Yonge St.								
PART A - REMOVALS								
Clearing & Grubbing	m ²	6,780.72	\$	1.00	\$	6,780.72		
Stripping (0.15m depth)	m ²	14,670.37	\$	9.22	\$	135,260.79		
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	17,162.79	\$	10.00	\$	171,627.89		
Removal and Disposal of Existing Concrete Sidewalk	m ²	152.59	\$	280.00	\$	42,724.36		
Removal and Disposal of Existing Curb and Gutter	m	187.41	\$	25.00	\$	4,685.30		
PART B - NEW CONSTRUCTION								
Earth Excavation	m ³	33,067.61	\$	16.50	\$	545,615.57		
Earth Grading (Fill) Includes Overpass embankment	m ³	48.97	\$	15.75	\$	771.28		
Silt Fence	m	711.50	\$	17.50	\$	12,451.22		
Granular A (150mm) Includes 1m behind C&G, below SW	t	13,606.63	\$	25.00	\$	340,165.71		
Granular B (500mm) Includes 1m behind C&G	t	32,125.05	\$	21.00	\$	674,626.01		
Hot Mix HL1 (50mm)	t	3,761.41	\$	80.00	\$	300,912.94		
Hot Mix HL4 (100mm)	t	6,932.80	\$	120.00	\$	831,935.79		
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	722.41	\$	125.00	\$	90,301.22		
Curb and Gutter - All types	m	4,425.23	\$	100.00	\$	442,522.50		
Concrete Sidewalk (150mm Thickness)	m ²	1,985.38	\$	75.00	\$	148,903.35		
Culvert Extension	m		\$	1,200.00	\$	-		
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	278.31	\$	81.25	\$	22,612.80		
Driveway Reinstatement (Gravel) Granular A - (150mm)	t	16.68	\$	25.00	\$	417.10		
Pavement Markings								
10cm All Types (W/Y Solid or Dash)	m	9,560.00	\$	5.00	\$	47,800.00		
Stop Bar	ea	6.00	\$	300.00	\$	1,800.00		
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	34.00	\$	200.00	\$	6,800.00		
LID	m	20.00	\$	1,000.00	\$	20,000.00		
Property Acquisition (Residential)	m2	14,200.00	\$	161.46	\$	2,292,732.65		
Property Acquisition (Commercial)	m2	917.65	\$	150.69	\$	138,280.98		
Property Acquisition (Institutional)	m2		\$	146.39	\$	-		
SUBTOTAL								\$ 6,279,728.16
Traffic Control								\$ 125,594.56
Drainage (15 % of Subtotal)								\$ 941,959.22
Minor Items (10 % of Subtotal)								\$ 627,972.82
Landscape Items (2.5 % of Subtotal)								\$ 156,993.20
SUB-TOTAL CONSTRUCTION								\$ 8,132,247.97
Contingency (25 % of Construction Sub-total)								\$ 2,033,061.99
Engineering (13% of Construction Sub-total)								\$ 1,057,192.24
Contract Administration (17% of Construction Sub-total)								\$ 1,382,482.15
Utilities (10 % of Construction Subtotal)								\$ 813,224.80
Total - Civil Works								\$ 13,418,209.14
							Rounded	\$ 13,420,000.00

Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie					
M4 Mapleview Drive East - Yonge St. to Prince William Way					
PART A - REMOVALS					
Clearing & Grubbing	m ²	19,189.74	\$ 1.00	\$ 19,189.74	
Stripping (0.15m depth)	m ²	7,058.45	\$ 9.22	\$ 65,078.90	
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	19,473.00	\$ 10.00	\$ 194,730.00	
Removal and Disposal of Existing Concrete Sidewalk	m ²	2,437.00	\$ 280.00	\$ 682,358.88	
Removal and Disposal of Existing Curb and Gutter	m	1,604.05	\$ 25.00	\$ 40,101.25	
PART B - NEW CONSTRUCTION					
Earth Excavation (Includes Underpass)	m ³	94,660.25	\$ 16.50	\$ 1,561,894.13	
Earth Grading (Fill)	m ³	858.37	\$ 15.75	\$ 13,519.33	
Silt Fence	m	1,712.54	\$ 17.50	\$ 29,969.38	
Granular A (150mm) Includes 1m behind C&G, below Multi Use Trail	t	15,759.54	\$ 25.00	\$ 393,988.56	
Granular B (500mm) Includes 1m behind C&G	t	37,408.58	\$ 21.00	\$ 785,580.08	
Hot Mix HL1 (50mm)	t	4,477.67	\$ 80.00	\$ 358,213.21	
Hot Mix HL4 (100mm)	t	8,252.95	\$ 120.00	\$ 990,354.16	
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	470.54	\$ 125.00	\$ 58,818.01	
Curb and Gutter - All types	m	3,744.54	\$ 100.00	\$ 374,454.10	
Concrete Sidewalk (150mm Thickness)	m ²	3,967.20	\$ 75.00	\$ 297,539.78	
Culvert Extension	m	51.34	\$ 1,200.00	\$ 61,602.00	
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	46.42	\$ 81.25	\$ 3,771.31	
Driveway Reinstatement (Gravel) Granular A - (150mm)	t		\$ 25.00	\$ -	
Pavement Markings					
10cm All Types (W/Y Solid or Dash)	m	9,540.00	\$ 5.00	\$ 47,700.00	
Stop Bar	ea	12.00	\$ 300.00	\$ 3,600.00	
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	65.00	\$ 200.00	\$ 13,000.00	
LID	m	200.00	\$ 1,000.00	\$ 200,000.00	
Property Acquisition (Residential)	m ²	19,577.87	\$ 161.46	\$ 3,161,043.05	
Property Acquisition (Commercial)	m ²	2,792.47	\$ 150.69	\$ 420,797.45	
Property Acquisition (Institutional)	m ²		\$ 146.39	\$ -	
SUBTOTAL					\$ 9,777,303.32
Traffic Control					\$ 195,546.07
Drainage (15 % of Subtotal)					\$ 1,466,595.50
Minor Items (10 % of Subtotal)					\$ 977,730.33
Landscape Items (2.5 % of Subtotal)					\$ 244,432.58
SUB-TOTAL CONSTRUCTION					\$ 12,661,607.79
Contingency (25 % of Construction Sub-total)					\$ 3,165,401.95
Engineering (13% of Construction Sub-total)					\$ 1,646,009.01
Contract Administration (17% of Construction Sub-total)					\$ 2,152,473.33
Utilities (10 % of Construction Subtotal)					\$ 1,266,160.78
Total - Civil Works					\$ 20,891,652.86
				Rounded	\$ 20,900,000.00

Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie					
M5 Mapleview Drive East - Prince William Way to 20th Side Road					
PART A - REMOVALS					
Clearing & Grubbing	m ²	17,873.28	\$ 1.00	\$ 17,873.28	
Stripping (0.15m depth)	m ²	4,631.26	\$ 9.22	\$ 42,700.23	
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	17,746.66	\$ 10.00	\$ 177,466.61	
Removal and Disposal of Existing Concrete Sidewalk	m ²	869.46	\$ 280.00	\$ 243,448.24	
Removal and Disposal of Existing Curb and Gutter	m	533.84	\$ 25.00	\$ 13,345.88	
PART B - NEW CONSTRUCTION					
Earth Excavation	m ³	13,994.84	\$ 16.50	\$ 230,914.86	
Earth Grading (Fill)	m ³	59.89	\$ 15.75	\$ 943.27	
Silt Fence	m	3,679.89	\$ 17.50	\$ 64,398.01	
Granular A (150mm) Includes 1m behind C&G, below Multi Use Trail	t	14,101.83	\$ 25.00	\$ 352,545.68	
Granular B (500mm) Includes 1m behind C&G	t	29,661.45	\$ 21.00	\$ 622,890.51	
Hot Mix HL1 (50mm)	t	3,305.42	\$ 80.00	\$ 264,433.38	
Hot Mix HL4 (100mm)	t	6,092.34	\$ 120.00	\$ 731,080.52	
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	1,345.83	\$ 125.00	\$ 168,229.13	
Curb and Gutter - All types	m	3,758.84	\$ 100.00	\$ 375,883.70	
Concrete Sidewalk (150mm Thickness)	m ²	2,643.79	\$ 75.00	\$ 198,284.55	
Culvert Extension	m	38.60	\$ 1,200.00	\$ 46,324.80	
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	46.64	\$ 81.25	\$ 3,789.37	
Driveway Reinstatement (Gravel) Granular A - (150mm)	t	74.04	\$ 25.00	\$ 1,851.07	
Pavement Markings					
10cm All Types (W/Y Solid or Dash)	m	6,279.90	\$ 5.00	\$ 31,399.48	
Stop Bar	ea	12.00	\$ 300.00	\$ 3,600.00	
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	33.00	\$ 200.00	\$ 6,600.00	
LID	m	320.00	\$ 1,000.00	\$ 320,000.00	
Property Acquisition (Residential)	m ²	2,411.53	\$ 161.46	\$ 389,366.12	
Property Acquisition (Commercial)	m ²	19,004.87	\$ 150.69	\$ 2,863,843.26	
Property Acquisition (Institutional)	m ²		\$ 146.39	\$ -	
SUBTOTAL					\$ 7,171,211.92
Traffic Control					\$ 143,424.24
Drainage (15 % of Subtotal)					\$ 1,075,681.79
Minor Items (10 % of Subtotal)					\$ 717,121.19
Landscape Items (2.5 % of Subtotal)					\$ 179,280.30
SUB-TOTAL CONSTRUCTION					\$ 9,286,719.43
Contingency (25 % of Construction Sub-total)					\$ 2,321,679.86
Engineering (13% of Construction Sub-total)					\$ 1,207,273.53
Contract Administration (17% of Construction Sub-total)					\$ 1,578,742.30
Utilities (10 % of Construction Subtotal)					\$ 928,671.94
Total - Civil Works					\$ 15,323,087.06
				Rounded	\$ 15,330,000.00

Hewitts - Cost Estimate - Civil Works

	Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie						
L1 Lockhart Road - Huronia Rd to 600m East of Huronia Rd						
PART A - REMOVALS						
	Clearing & Grubbing	m ²	5,060.39	\$ 1.00	\$ 5,060.39	
	Stripping (0.15m depth)	m ²	675.35	\$ 9.22	\$ 6,226.68	
	Removal and Disposal of Asphalt Pavement - Full Depth	m ²	4,017.52	\$ 10.00	\$ 40,175.18	
	Removal and Disposal of Existing Concrete Sidewalk	m ²		\$ 280.00	\$ -	
	Removal and Disposal of Existing Curb and Gutter	m	56.73	\$ 25.00	\$ 1,418.25	
PART B - NEW CONSTRUCTION						
	Earth Excavation	m ³	6,684.05	\$ 16.50	\$ 110,286.83	
	Earth Grading (Fill)	m ³	1,358.81	\$ 15.75	\$ 21,401.26	
	Silt Fence	m	721.23	\$ 17.50	\$ 12,621.58	
	Granular A (150mm) Includes 1m behind C&G, below SW and Multi-Use-Trail	t	1,804.45	\$ 25.00	\$ 45,111.31	
	Granular B (500mm) Includes 1m behind C&G	t	8,090.38	\$ 21.00	\$ 169,897.92	
	Hot Mix HL1 (50mm)	t	984.67	\$ 80.00	\$ 78,773.54	
	Hot Mix HL4 (100mm)	t	1,814.88	\$ 120.00	\$ 217,785.67	
	Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	218.74	\$ 125.00	\$ 27,342.32	
	Curb and Gutter - All types	m	432.12	\$ 100.00	\$ 43,211.70	
	Concrete Sidewalk (150mm Thickness)	m ²		\$ 75.00	\$ -	
	Culvert Extension	m	18.06	\$ 1,200.00	\$ 21,676.80	
	Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t		\$ 81.25	\$ -	
	Driveway Reinstatement (Gravel) Granular A - (150mm)	t		\$ 25.00	\$ -	
	Pavement Markings					
	10cm All Types (W/Y Solid or Dash)	m	2,020.00	\$ 5.00	\$ 10,100.00	
	Stop Bar	ea	2.00	\$ 300.00	\$ 600.00	
	Symbols (Dir Arrow, LT, HOV)	ea	11.00	\$ 200.00	\$ 2,200.00	
	LID	m	40.00	\$ 1,000.00	\$ 40,000.00	
	Property Acquisition (Residential)	m ²	468.43	\$ 161.46	\$ 75,633.19	
	Property Acquisition (Commercial)	m ²	942.24	\$ 150.69	\$ 141,985.99	
	Property Acquisition (Institutional)	m ²	1,112.67	\$ 146.39	\$ 162,884.35	
SUBTOTAL						\$ 813,889.42
	Traffic Control					\$ 16,277.79
	Drainage (15 % of Subtotal)					\$ 122,083.41
	Minor Items (10 % of Subtotal)					\$ 81,388.94
	Landscape Items (2.5 % of Subtotal)					\$ 20,347.24
SUB-TOTAL CONSTRUCTION						\$ 1,053,986.80
	Contingency (25 % of Construction Sub-total)					\$ 263,496.70
	Engineering (13% of Construction Sub-total)					\$ 137,018.28
	Contract Administration (17% of Construction Sub-total)					\$ 179,177.76
	Utilities (10 % of Construction Subtotal)					\$ 105,398.68
Total - Civil Works						\$ 1,739,078.21
Rounded						\$ 1,740,000.00

Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie					
L2 Lockhart Road - 600m East of Huronia Rd to Yonge St.					
PART A - REMOVALS					
Clearing & Grubbing	m ²	45,330.52	\$ 1.00	\$ 45,330.52	
Stripping (0.15m depth)	m ²	3,780.31	\$ 9.22	\$ 34,854.48	
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	18,157.57	\$ 10.00	\$ 181,575.72	
Removal and Disposal of Existing Concrete Sidewalk	m ²		\$ 280.00	\$ -	
Removal and Disposal of Existing Curb and Gutter	m		\$ 25.00	\$ -	
PART B - NEW CONSTRUCTION					
Earth Excavation	m ³	57,895.95	\$ 16.50	\$ 955,283.18	
Earth Grading (Fill)	m ³	1,736.43	\$ 15.75	\$ 27,348.77	
Silt Fence	m	5,214.78	\$ 17.50	\$ 91,258.63	
Granular A (150mm) Includes 1m behind C&G, below SW and Multi-Use-Trail	t	18,906.01	\$ 25.00	\$ 472,650.16	
Granular B (500mm) Includes 1m behind C&G	t	44,495.70	\$ 21.00	\$ 934,409.64	
Hot Mix HL1 (50mm)	t	5,330.32	\$ 80.00	\$ 426,425.43	
Hot Mix HL4 (100mm)	t	9,824.51	\$ 120.00	\$ 1,178,940.90	
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	1,572.11	\$ 125.00	\$ 196,514.18	
Curb and Gutter - All types	m	2,751.36	\$ 100.00	\$ 275,136.40	
Concrete Sidewalk (150mm Thickness)	m ²		\$ 75.00	\$ -	
Culvert Extension	m	18.05	\$ 1,200.00	\$ 21,658.80	
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	20.23	\$ 81.25	\$ 1,643.60	
Driveway Reinstatement (Gravel) Granular A - (150mm)	t	53.87	\$ 25.00	\$ 1,346.72	
Pavement Markings					
10cm All Types (W/Y Solid or Dash)	m	11,500.00	\$ 5.00	\$ 57,500.00	
Stop Bar	ea	7.00	\$ 300.00	\$ 2,100.00	
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	68.00	\$ 200.00	\$ 13,600.00	
LID	m	540.00	\$ 1,000.00	\$ 540,000.00	
Property Acquisition (Residential)	m ²	5,008.02	\$ 161.46	\$ 808,594.91	
Property Acquisition (Commercial)	m ²	33,295.44	\$ 150.69	\$ 5,017,289.25	
Property Acquisition (Institutional)	m ²		\$ 146.39	\$ -	
SUBTOTAL					\$ 4,917,577.13
Traffic Control					\$ 98,351.54
Drainage (15 % of Subtotal)					\$ 737,636.57
Minor Items (10 % of Subtotal)					\$ 491,757.71
Landscape Items (2.5 % of Subtotal)					\$ 122,939.43
SUB-TOTAL CONSTRUCTION					\$ 6,368,262.38
Contingency (25 % of Construction Sub-total)					\$ 1,592,065.60
Engineering (13% of Construction Sub-total)					\$ 827,874.11
Contract Administration (17% of Construction Sub-total)					\$ 1,082,604.60
Utilities (10 % of Construction Subtotal)					\$ 636,826.24
Total - Civil Works					\$ 10,507,632.93
				Rounded	\$ 10,510,000.00

Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie					
L3 Lockhart Road - Yonge St. to Prince William Way (Level Crossing)					
PART A - REMOVALS					
Clearing & Grubbing	m ²	24,617.39	\$ 1.00	\$ 24,617.39	
Stripping (0.15m depth)	m ²	1,748.94	\$ 9.22	\$ 16,125.20	
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	10,517.53	\$ 10.00	\$ 105,175.31	
Removal and Disposal of Existing Concrete Sidewalk	m ²		\$ 280.00	\$ -	
Removal and Disposal of Existing Curb and Gutter	m		\$ 25.00	\$ -	
PART B - NEW CONSTRUCTION					
Earth Excavation	m ³	14,704.14	\$ 16.50	\$ 242,618.31	
Earth Grading (Fill)	m ³	1,685.34	\$ 15.75	\$ 26,544.11	
Silt Fence	m	2,686.04	\$ 17.50	\$ 47,005.75	
Granular A (150mm) Includes 1m behind C&G, below SW	t	9,668.94	\$ 25.00	\$ 241,723.55	
Granular B (500mm) Includes 1m behind C&G	t	22,818.65	\$ 21.00	\$ 479,191.71	
Hot Mix HL1 (50mm)	t	2,725.75	\$ 80.00	\$ 218,059.96	
Hot Mix HL4 (100mm)	t	5,023.93	\$ 120.00	\$ 602,871.64	
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	791.75	\$ 125.00	\$ 98,968.22	
Curb and Gutter - All types	m	1,440.23	\$ 100.00	\$ 144,022.60	
Concrete Sidewalk (150mm Thickness)	m ²		\$ 75.00	\$ -	
Culvert Extension	m	60.82	\$ 1,200.00	\$ 72,979.20	
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	221.00	\$ 81.25	\$ 17,956.33	
Driveway Reinstatement (Gravel) Granular A - (150mm)	t	73.51	\$ 25.00	\$ 1,837.86	
Pavement Markings					
10cm All Types (W/Y Solid or Dash)	m	5,870.00	\$ 5.00	\$ 29,350.00	
Stop Bar	ea	9.00	\$ 300.00	\$ 2,700.00	
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	32.00	\$ 200.00	\$ 6,400.00	
LID	m		\$ 1,000.00	\$ -	
Property Acquisition (Residential)	m ²	20,598.82	\$ 161.46	\$ 3,325,885.64	
Property Acquisition (Commercial)	m ²	6,118.78	\$ 150.69	\$ 922,039.26	
Property Acquisition (Institutional)	m ²		\$ 146.39	\$ -	
SUBTOTAL					\$ 2,378,147.13
Traffic Control					\$ 47,562.94
Drainage (15 % of Subtotal)					\$ 356,722.07
Minor Items (10 % of Subtotal)					\$ 237,814.71
Landscape Items (2.5 % of Subtotal)					\$ 59,453.68
SUB-TOTAL CONSTRUCTION					\$ 3,079,700.53
Contingency (25 % of Construction Sub-total)					\$ 769,925.13
Engineering (13% of Construction Sub-total)					\$ 400,361.07
Contract Administration (17% of Construction Sub-total)					\$ 523,549.09
Utilities (10 % of Construction Subtotal)					\$ 307,970.05
Total - Civil Works					\$ 5,081,505.88
				Rounded	\$ 5,090,000.00

Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie					
L3 Lockhart Road - Yonge St. to Prince William Way (Overpass GS)					
PART A - REMOVALS					
Clearing & Grubbing	m ²	24,617.39	\$ 1.00	\$ 24,617.39	
Stripping (0.15m depth)	m ²	1,748.94	\$ 9.22	\$ 16,125.20	
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	10,517.53	\$ 10.00	\$ 105,175.31	
Removal and Disposal of Existing Concrete Sidewalk	m ²		\$ 280.00	\$ -	
Removal and Disposal of Existing Curb and Gutter	m		\$ 25.00	\$ -	
PART B - NEW CONSTRUCTION					
Earth Excavation	m ³	1,962.70	\$ 16.50	\$ 32,384.55	
Earth Grading (Fill) Includes Overpass embankment	m ³	99,739.30	\$ 15.75	\$ 1,570,893.98	
Silt Fence	m	2,801.35	\$ 17.50	\$ 49,023.63	
Granular A (150mm) Includes 1m behind C&G, below Multi Use Trail	t	13,092.65	\$ 25.00	\$ 327,316.14	
Granular B (500mm) Includes 1m behind C&G	t	31,029.01	\$ 21.00	\$ 651,609.29	
Hot Mix HL1 (50mm)	t	3,572.65	\$ 80.00	\$ 285,812.02	
Hot Mix HL4 (100mm)	t	6,584.88	\$ 120.00	\$ 790,186.17	
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	795.36	\$ 125.00	\$ 99,419.55	
Curb and Gutter - All types	m	3,008.23	\$ 100.00	\$ 300,822.80	
Concrete Sidewalk (150mm Thickness)	m ²	1,281.51	\$ 75.00	\$ 96,112.88	
Culvert Extension	m	60.82	\$ 1,200.00	\$ 72,979.20	
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	207.23	\$ 81.25	\$ 16,837.34	
Driveway Reinstatement (Gravel) Granular A - (150mm)	t	73.51	\$ 25.00	\$ 1,837.86	
Pavement Markings					
10cm All Types (W/Y Solid or Dash)	m	5,870.00	\$ 5.00	\$ 29,350.00	
Stop Bar	ea	9.00	\$ 300.00	\$ 2,700.00	
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	32.00	\$ 200.00	\$ 6,400.00	
LID	m	40.00	\$ 1,000.00	\$ 40,000.00	
Property Acquisition (Residential)	m ²	31,365.33	\$ 161.46	\$ 5,064,245.54	
Property Acquisition (Commercial)	m ²	6,118.78	\$ 150.69	\$ 922,039.26	
Property Acquisition (Institutional)	m ²		\$ 146.39	\$ -	
SUBTOTAL					\$ 4,479,603.30
Traffic Control					\$ 89,592.07
Drainage (15 % of Subtotal)					\$ 671,940.50
Minor Items (10 % of Subtotal)					\$ 447,960.33
Landscape Items (2.5 % of Subtotal)					\$ 111,990.08
SUB-TOTAL CONSTRUCTION					\$ 5,801,086.27
Contingency (25 % of Construction Sub-total)					\$ 1,450,271.57
Engineering (13% of Construction Sub-total)					\$ 754,141.22
Contract Administration (17% of Construction Sub-total)					\$ 986,184.67
Utilities (10 % of Construction Subtotal)					\$ 580,108.63
Total - Civil Works					\$ 9,571,792.35
				Rounded	\$ 9,580,000.00

	Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie						
L4 Lockhart Road - Prince William Way to Phase 1 Boundary						
PART A - REMOVALS						
	Clearing & Grubbing	m ²	7,308.02	\$ 1.00	\$ 7,308.02	
	Stripping (0.15m depth)	m ²	399.68	\$ 9.22	\$ 3,685.01	
	Removal and Disposal of Asphalt Pavement - Full Depth	m ²	5,529.43	\$ 10.00	\$ 55,294.33	
	Removal and Disposal of Existing Concrete Sidewalk	m ²		\$ 280.00	\$ -	
	Removal and Disposal of Existing Curb and Gutter	m		\$ 25.00	\$ -	
PART B - NEW CONSTRUCTION						
	Earth Excavation	m ³	7,082.90	\$ 16.50	\$ 116,867.85	
	Earth Grading (Fill)	m ³	708.29	\$ 15.75	\$ 11,155.57	
	Silt Fence	m	1,376.38	\$ 17.50	\$ 24,086.65	
	Granular A (150mm) Includes 1m behind C&G, below Multi Use Trail	t	3,594.38	\$ 25.00	\$ 89,859.47	
	Granular B (500mm) Includes 1m behind C&G	t	8,520.05	\$ 21.00	\$ 178,921.09	
	Hot Mix HL1 (50mm)	t	1,022.38	\$ 80.00	\$ 81,790.03	
	Hot Mix HL4 (100mm)	t	1,884.38	\$ 120.00	\$ 226,125.37	
	Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	287.01	\$ 125.00	\$ 35,876.16	
	Curb and Gutter - All types	m	501.42	\$ 100.00	\$ 50,142.20	
	Concrete Sidewalk (150mm Thickness)	m ²		\$ 75.00	\$ -	
	Culvert Extension	m		\$ 1,200.00	\$ -	
	Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	45.63	\$ 81.25	\$ 3,707.53	
	Driveway Reinstatement (Gravel) Granular A - (150mm)	t	84.77	\$ 25.00	\$ 2,119.33	
	Pavement Markings					
	10cm All Types (W/Y Solid or Dash)	m	2,380.00	\$ 5.00	\$ 11,900.00	
	Stop Bar	ea	1.00	\$ 300.00	\$ 300.00	
	Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	9.00	\$ 200.00	\$ 1,800.00	
	LID	m	100.00	\$ 1,000.00	\$ 100,000.00	
	Property Acquisition (Residential)	m ²	5,339.93	\$ 161.46	\$ -	
	Property Acquisition (Commercial)	m ²		\$ 150.69	\$ -	
	Property Acquisition (Institutional)	m ²		\$ 146.39	\$ -	
SUBTOTAL						\$ 900,938.60
	Traffic Control					\$ 18,018.77
	Drainage (15 % of Subtotal)					\$ 135,140.79
	Minor Items (10 % of Subtotal)					\$ 90,093.86
	Landscape Items (2.5 % of Subtotal)					\$ 22,523.47
SUB-TOTAL CONSTRUCTION						\$ 1,166,715.49
	Contingency (25 % of Construction Sub-total)					\$ 291,678.87
	Engineering (13% of Construction Sub-total)					\$ 151,673.01
	Contract Administration (17% of Construction Sub-total)					\$ 198,341.63
	Utilities (10 % of Construction Subtotal)					\$ 116,671.55
Total - Civil Works						\$ 1,925,080.56
						Rounded
						\$ 1,930,000.00

Hewitts - Cost Estimate - Civil Works

Item	Unit	Qty.	Unit Price		Subtotal	Total
City of Barrie						
Y Yonge Street						
PART A - REMOVALS						
Clearing & Grubbing	m ²	19,140.32	\$	1.00	\$	19,140.32
Stripping (0.15m depth)	m ²	6,574.80	\$	9.22	\$	60,619.67
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	14,992.79	\$	10.00	\$	149,927.87
Removal and Disposal of Existing Concrete Sidewalk	m ²	175.82	\$	280.00	\$	49,229.60
Removal and Disposal of Existing Curb and Gutter	m	85.50	\$	25.00	\$	2,137.50
PART B - NEW CONSTRUCTION						
Earth Excavation	m ³	44,348.07	\$	16.50	\$	731,743.16
Earth Grading (Fill) Includes Overpass embankment	m ³	9.94	\$	15.75	\$	156.56
Silt Fence	m	3,203.54	\$	17.50	\$	56,062.00
Granular A (150mm) Includes 1m behind C&G, below SW	t	16,814.28	\$	25.00	\$	420,357.02
Granular B (500mm) Includes 1m behind C&G	t	41,001.53	\$	21.00	\$	861,032.11
Hot Mix HL1 (50mm)	t	4,869.07	\$	80.00	\$	389,525.79
Hot Mix HL4 (100mm)	t	8,974.37	\$	120.00	\$	1,076,924.24
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t		\$	125.00	\$	-
Curb and Gutter - All types	m	3,734.40	\$	100.00	\$	373,440.40
Concrete Sidewalk (150mm Thickness)	m ²	5,704.81	\$	75.00	\$	427,860.53
Culvert Extension	m		\$	1,200.00	\$	-
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	115.59	\$	81.25	\$	9,391.99
Driveway Reinstatement (Gravel) Granular A - (150mm)	t	148.48	\$	25.00	\$	3,711.99
Pavement Markings						
10cm All Types (W/Y Solid or Dash)	m	404.00	\$	5.00	\$	2,020.00
Stop Bar	ea	8.00	\$	300.00	\$	2,400.00
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	76.00	\$	200.00	\$	15,200.00
LID	m	420.00	\$	1,000.00	\$	420,000.00
Property Acquisition (Residential)	m2	4,951.23	\$	161.46	\$	799,424.95
Property Acquisition (Commercial)	m2	2,110.58	\$	150.69	\$	318,043.75
Property Acquisition (Institutional)	m2	58.52	\$	146.39	\$	8,566.60
SUBTOTAL						\$ 6,196,916.05
Traffic Control						\$ 123,938.32
Drainage (15 % of Subtotal)						\$ 929,537.41
Minor Items (10 % of Subtotal)						\$ 619,691.61
Landscape Items (2.5 % of Subtotal)						\$ 154,922.90
SUB-TOTAL CONSTRUCTION						\$ 8,025,006.29
Contingency (25 % of Construction Sub-total)						\$ 2,006,251.57
Engineering (13% of Construction Sub-total)						\$ 1,043,250.82
Contract Administration (17% of Construction Sub-total)						\$ 1,364,251.07
Utilities (10 % of Construction Subtotal)						\$ 802,500.63
Total - Civil Works						\$ 13,241,260.37
					Rounded	\$ 13,250,000.00

Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie					
B1 Big Bay Point Road					
PART A - REMOVALS					
Clearing & Grubbing	m ²	4,403.57	\$ 1.00	\$ 4,403.57	
Stripping (0.15m depth)	m ²	1,248.10	\$ 9.22	\$ 11,507.52	
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	4,041.40	\$ 10.00	\$ 40,414.01	
Removal and Disposal of Existing Concrete Sidewalk	m ²		\$ 280.00	\$ -	
Removal and Disposal of Existing Curb and Gutter	m		\$ 25.00	\$ -	
PART B - NEW CONSTRUCTION					
Earth Excavation	m ³	5,756.99	\$ 16.50	\$ 94,990.34	
Earth Grading (Fill)	m ³	3.17	\$ 15.75	\$ 49.93	
Silt Fence	m	923.07	\$ 17.50	\$ 16,153.73	
Granular A (150mm) Includes 1m behind C&G, below Multi Use Trail	t	2,589.30	\$ 25.00	\$ 64,732.50	
Granular B (500mm) Includes 1m behind C&G	t	9,269.70	\$ 21.00	\$ 194,663.70	
Hot Mix HL1 (50mm)	t	1,056.20	\$ 80.00	\$ 84,496.00	
Hot Mix HL4 (100mm)	t	1,946.70	\$ 120.00	\$ 233,604.00	
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	162.70	\$ 125.00	\$ 20,337.50	
Curb and Gutter - All types	m	985.87	\$ 100.00	\$ 98,587.00	
Concrete Sidewalk (150mm Thickness)	m ²		\$ 75.00	\$ -	
Culvert Extension	m		\$ 1,200.00	\$ -	
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	35.20	\$ 81.25	\$ 2,860.00	
Driveway Reinstatement (Gravel) Granular A - (150mm)	t	49.70	\$ 25.00	\$ 1,242.50	
Pavement Markings					
10cm All Types (W/Y Solid or Dash)	m	1,609.22	\$ 5.00	\$ 8,046.12	
Stop Bar	ea	2.00	\$ 300.00	\$ 600.00	
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	17.00	\$ 200.00	\$ 3,400.00	
LID	m	120.00	\$ 1,000.00	\$ 120,000.00	
Property Acquisition (Residential)	m ²	884.21	\$ 161.46	\$ 142,764.22	
Property Acquisition (Commercial)	m ²	3,471.56	\$ 150.69	\$ 523,129.83	
Property Acquisition (Institutional)	m ²		\$ 146.39	\$ -	
SUBTOTAL					\$ 1,665,982.45
Traffic Control					\$ 33,319.65
Drainage (15 % of Subtotal)					\$ 249,897.37
Minor Items (10 % of Subtotal)					\$ 166,598.24
Landscape Items (2.5 % of Subtotal)					\$ 41,649.56
SUB-TOTAL CONSTRUCTION					\$ 2,157,447.27
Contingency (25 % of Construction Sub-total)					\$ 539,361.82
Engineering (13% of Construction Sub-total)					\$ 280,468.15
Contract Administration (17% of Construction Sub-total)					\$ 366,766.04
Utilities (10 % of Construction Subtotal)					\$ 215,744.73
Total - Civil Works					\$ 3,559,788.00
				Rounded	\$ 3,560,000.00

Item	Unit	Qty.	Unit Price	Subtotal	Total
City of Barrie					
B2 Big Bay Point Road					
PART A - REMOVALS					
Clearing & Grubbing	m ²	4,327.31	\$ 1.00	\$ 4,327.31	
Stripping (0.15m depth)	m ²	799.66	\$ 9.22	\$ 7,372.89	
Removal and Disposal of Asphalt Pavement - Full Depth	m ²	4,000.97	\$ 10.00	\$ 40,009.65	
Removal and Disposal of Existing Concrete Sidewalk	m ²		\$ 280.00	\$ -	
Removal and Disposal of Existing Curb and Gutter	m		\$ 25.00	\$ -	
PART B - NEW CONSTRUCTION					
Earth Excavation	m ³	12,587.74	\$ 16.50	\$ 207,697.71	
Earth Grading (Fill)	m ³	66.31	\$ 15.75	\$ 1,044.38	
Silt Fence	m	1,111.48	\$ 17.50	\$ 19,450.90	
Granular A (150mm) Includes 1m behind C&G, below Multi Use Trail	t	3,735.00	\$ 25.00	\$ 93,375.00	
Granular B (500mm) Includes 1m behind C&G	t	9,558.67	\$ 21.00	\$ 200,732.07	
Hot Mix HL1 (50mm)	t	1,070.64	\$ 80.00	\$ 85,651.20	
Hot Mix HL4 (100mm)	t	1,973.31	\$ 120.00	\$ 236,797.20	
Hot Mix HL3 - (80mm - Two Lifts of 40mm) Multi-Use-Trail	t	159.98	\$ 125.00	\$ 19,997.50	
Curb and Gutter - All types	m	971.96	\$ 100.00	\$ 97,196.00	
Concrete Sidewalk (150mm Thickness)	m ²		\$ 75.00	\$ -	
Culvert Extension	m		\$ 1,200.00	\$ -	
Driveway Reinstatement (Asphalt) HL3 - (80mm - Two Lifts of 40mm)	t	35.18	\$ 81.25	\$ 2,858.38	
Driveway Reinstatement (Gravel) Granular A - (150mm)	t	69.12	\$ 25.00	\$ 1,728.00	
Pavement Markings					
10cm All Types (W/Y Solid or Dash)	m	1,871.59	\$ 5.00	\$ 9,357.97	
Stop Bar	ea	1.00	\$ 300.00	\$ 300.00	
Symbols (Dir Arrow, LT, HOV, Bike Ln)	ea	18.00	\$ 200.00	\$ 3,600.00	
LID	m	140.00	\$ 1,000.00	\$ 140,000.00	
Property Acquisition (Residential)	m ²	967.27	\$ 161.46	\$ 156,174.77	
Property Acquisition (Commercial)	m ²	576.86	\$ 150.69	\$ 86,927.49	
Property Acquisition (Institutional)	m ²	0.00	\$ 146.39	\$ -	
SUBTOTAL					\$ 1,414,598.41
Traffic Control					\$ 28,291.97
Drainage (15 % of Subtotal)					\$ 212,189.76
Minor Items (10 % of Subtotal)					\$ 141,459.84
Landscape Items (2.5 % of Subtotal)					\$ 35,364.96
SUB-TOTAL CONSTRUCTION					\$ 1,831,904.95
Contingency (25 % of Construction Sub-total)					\$ 457,976.24
Engineering (13% of Construction Sub-total)					\$ 238,147.64
Contract Administration (17% of Construction Sub-total)					\$ 311,423.84
Utilities (10 % of Construction Subtotal)					\$ 183,190.49
Total - Civil Works					\$ 3,022,643.16
				Rounded	\$ 3,030,000.00

**HEWITT'S SCHEDULE C CLASS EA
TRUNK WATERMAIN AND SANITARY SEWER
PRELIMINARY CONSTRUCTION COST ESTIMATE**

Date: September 2017

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	ESTIMATED COST
1.0 SANITARY SEWER					
1.1	Supply and Install 250 mm Dia. PVC Sanitary Sewer by Open Cut	m	934.6	\$350.0	\$327,110.0
1.2	Supply and Install 250 mm Dia. PVC Sanitary Sewer by Trenchless Method	m	20.2	\$5,400.0	\$109,080.0
1.3	Supply and Install 375 mm Dia. PVC Sanitary Sewer by Open Cut	m	1568	\$550.0	\$862,400.0
1.4	CCTV Inspection	m	2502.6	\$10.0	\$25,026.0
1.5	Supply and Place 1200 mm Dia. Precast Sanitary Maintenance Hole	ea	26	\$5,100.0	\$132,600.0
1.6	Supply and Place 1800 mm Dia. Precast Sanitary Maintenance Hole	ea	1	\$7,010.0	\$7,010.0
SUB-TOTAL SANITARY SEWER					\$1,463,226.0
2.0 WATER DISTRIBUTION					
2.1	Supply and Install 600 mm Dia. CPP Watermain by Open Cut	m	245.9	\$1,300.0	\$319,670.0
2.2	Supply and Install 600 mm Dia. CPP Watermain by Trenchless Method	m	15.1	\$8,700.0	\$131,370.0
2.3	Supply and Install 400 mm Dia. CPP Watermain by Open Cut	m	241.5	\$7,600.0	\$1,835,400.0
2.6	Supply and Install Gate Valve in Pre-Cast Rectangular Chamber				
2.6.1	V.C. #13 (3-600 mm Gate Valves)	ea	1	\$100,000.00	\$100,000.0
2.6.2	V.C. #14 (1-600 mm Gate Valve)	ea	1	\$90,000.00	\$90,000.0
2.6.3	D.R.V. #14A (1-600 mm Gate Valve)	ea	1	\$90,000.00	\$90,000.0
2.6.4	V.C. #15 (1-600 mm Gate Valve)	ea	1	\$90,000.00	\$90,000.0
2.6.5	V.C. #16 (1-600 mm Gate Valve)	ea	1	\$90,000.00	\$90,000.0
2.6.6	V.C. #16A (Air Release Valve)	ea	1	\$15,000.0	\$15,000.0
2.6.7	V.C. #17 (3-600 mm Gate Valves)	ea	1	\$100,000.00	\$100,000.0
2.6.8	V.C. #18 (1-400 mm Gate Valve)	ea	1	\$88,500.00	\$88,500.0
2.6.9	V.C. #19 (3-400 mm Gate Valves)	ea	1	\$95,500.00	\$95,500.0
2.7	Supply and Install 400 mm Concrete Plug	ea	3	\$540.0	\$1,620.0
2.8	Supply and Install 600 mm Concrete Plug	ea	3	\$540.0	\$1,620.0
SUB-TOTAL WATER DISTRIBUTION					\$3,048,680.0
TOTAL CONSTRUCTION COST ESTIMATE					\$4,511,906.0
Overhead including bonding and insurance @10%					\$451,190.6
Contingency Allowance (20%) for items not explicitly covered above.					\$902,381.2
Estimated Total Cost Excl GST					\$5,865,477.8

Notes:

Costs for easement/permitting not included

HEWITT'S EA

WATERMAIN ALIGNMENT - QUANTITIES BREAKDOWN

From Sta	To Sta	Diameter (mm)	Length (m)	Ground Elevation (m)		Average Trench	Average Tunnel	Casing Length (m)	Notes
				Start	End	Depth (m)	Depth (m)		
600 mm Watermain on Mapleview Drive E.									
3617.5	3711	600	93.5	2.7	2.7	2.70		N/A	CPP pipe on Mapleview Drive E
3711	3724	600	13	2.7	5.1	3.90		N/A	CPP pipe on Mapleview Drive E
3724	3756.7	600	32.7	5.1	2.7		3.90	15.1	CPP pipe in 1200mm Steel Casing on Mapleview Drive E
3756.7	3825.3	600	68.6	2.7	2.8	2.75		N/A	CPP pipe on Mapleview Drive E
3825.3	3832.9	600	7.6	3.6	2.6	3.10		N/A	CPP pipe on Mapleview Drive E
3832.9	3863.4	600	30.5	2.6	2.7	2.65		N/A	CPP pipe on Mapleview Drive E
400 mm Watermain on Big Bay Point Road									
25.7	267.2	400	241.5	2.6	2.6	2.60		N/A	CPP pipe on Big Bay Point

Total Length of 600 mm Watermain (m)	245.9
Total Length of 400 mm Watermain (m)	241.5
Total Piping Length (m)	487.4
Total Casing Length (m)	15.1
# of 600 mm Valves	10
# of 400 mm Valves	4
# of Valve Chambers	8

Sta	Chamber ID	# of Chambers	Type of Chamber	# of Valves
600 mm Watermain on Mapleview Drive E.				
3+617.5	13	1	VC	3
3+711	14	1	VC	1
3+724	14A	1	DRV	1
3+756.7	15	1	VC	1
3+825.3	16	1	VC	1
3+863.4	17	1	VC	3
400 mm Watermain on Big Bay Point Road				
0+025.7	18	1	VC	1
0+267.2	19	1	VC	3
600 mm Watermain on Mapleview Drive E.				
3+832.9	-	0	Air Release Valve	1

HEWITT'S EA

SANITARY SEWER ALIGNMENT - QUANTITIES BREAKDOWN

From MH	To MH	Diameter (mm)	Length (m)	Ground Elevation (m)		Average Tunnel Depth (m)	Casing Length (m)	Notes
				Start	End			
109	108	250	110.0	6.7	7.8	7.3	N/A	PVC sewer on Mapleview Drive E
108	107	250	102.9	7.8	5.3	6.6	N/A	PVC sewer on Mapleview Drive E
107	106	250	117.1	5.3	3.5	4.4	7.2	PVC sewer in 500 mm Steel Casing on Mapleview Drive E
106	105	250	110.1	3.5	4.0	3.8	N/A	PVC sewer on Mapleview Drive E
105	104	250	110.0	4.0	4.6	4.3	N/A	PVC sewer on Mapleview Drive E
104	103	250	47.4	4.6	4.8	4.7	N/A	PVC sewer on Mapleview Drive E
103	102	250	110.0	4.8	5.1	5.0	N/A	PVC sewer on Mapleview Drive E
102	101	250	98.3	5.1	5.7	5.4	N/A	PVC sewer on Mapleview Drive E
101	9000	250	56.7	5.7	6.8	6.3	13.0	PVC sewer in 500 mm Steel Casing on Mapleview Drive E
9000	100	250	92.3	6.8	5.9	6.4	N/A	PVC sewer on Mapleview Drive E
100	110	375	116.0	5.9	6.1	6.0	N/A	PVC sewer on Mapleview Drive E
110	111	375	120.0	6.1	7.0	6.6	N/A	PVC sewer on Mapleview Drive E
111	112	375	120.0	7.0	5.9	6.5	N/A	PVC sewer on Mapleview Drive E
112	113	375	87.8	5.9	5.2	5.6	N/A	PVC sewer on Mapleview Drive E
113	114	375	120.0	5.2	5.1	5.2	N/A	PVC sewer on Mapleview Drive E
114	115	375	65.0	5.1	5.2	5.2	N/A	PVC sewer on Mapleview Drive E
115	116	375	114.0	5.2	5.1	5.2	N/A	PVC sewer on Mapleview Drive E
116	117	375	114.0	5.1	5.1	5.1	N/A	PVC sewer on Mapleview Drive E
117	118	375	76.3	5.1	5.1	5.1	N/A	PVC sewer on Mapleview Drive E
118	119	375	71.7	5.1	5.1	5.1	N/A	PVC sewer on Mapleview Drive E
119	120	375	120.0	5.1	5.1	5.1	N/A	PVC sewer on Mapleview Drive E
120	121	375	120.0	5.1	5.2	5.2	N/A	PVC sewer on Mapleview Drive E
121	122	375	120.0	5.2	5.2	5.2	N/A	PVC sewer on Mapleview Drive E
122	123	375	120.0	5.2	4.0	4.6	N/A	PVC sewer on Mapleview Drive E
123	124	375	60.3	4.0	3.4	3.7	N/A	PVC sewer on Mapleview Drive E
124	125	375	22.9	3.4	3.1	3.3	N/A	PVC sewer on Mapleview Drive E

Total Length of 250 mm Pipe (m)
 Total Length of 375mm Pipe (m)
 Total Piping Length (m)
 Total Casing Length (m)
 Number of 1200 mm Manholes
 Number of 1800 mm Manholes

934.6
1568.0
2502.6
20.2
26
1

MH ID	MH Diameter
109	1200
108	1200
107	1200
106	1200
105	1200
104	1200
103	1200
102	1200
101	1200
9000	1800
100	1200
110	1200
111	1200
112	1200
113	1200
114	1200
115	1200
116	1200
117	1200
118	1200
119	1200
120	1200
121	1200
122	1200
123	1200
124	1200
125	1200