

6th Line Municipal Class Environmental Assessment

County Road 27 to St John's Road
Town of Innisfil, ON

September 6, 2016

**APPENDIX O:
HIGH LEVEL COST ESTIMATES**

HDR Computation

Project 6th LINE EA, CR27 TO ST JOHNS ROAD
Subject CLASS EA, OPINION OF PROBABLE COST
Task TOTAL ALL SEGMENTS

Computed MMD
Checked CCH
Sheet 1

Date 8/29/2016
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From: County Road 27 To: St. Johns Road

Sections	Estimated Cost
County Road 27 - 5th Sideroad	\$11,360,000
5th Sideroad - 10th Sideroad	\$11,310,000
10th Sideroad - Yonge Street	\$10,540,000
Yonge St. - 20th Sideroad	\$12,160,000
20th Sideroad - St. Johns Road	\$21,730,000
Project Total =	\$67,100,000

Note:

Sections are calculated from HOT of Insteseacting roadway to HOT of second intersecting roadway.
See quantity takeoff tab for section stationing

HDR Computation

Project 6th LINE EA, CR27 TO ST JOHNS ROAD
 Subject CLASS EA, OPINION OF PROBABLE COS
 Task 6th LINE - ULTIMATE

Computed MMD
 Checked CCH
 Sheet 2

Date 8/29/2016
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From: County Road 27 To: 5th Sideroad

Component/ Category	Item Description	Total
Utility Conflicts	Hydro Pole Relocation	\$1,610,000
	Water Main Relocation	\$0
	Gas Main Relocation	\$0
	Underground Bell relocation	\$610,000
	Sanitary relocation	\$0
	Rogers relocation	\$0
	Contingency (20%)	\$444,000
	Sub Total	\$2,664,000
Road Work	Excavation/Earthworks	\$623,085
	Install storm sewer	\$0
	Granular 'A'	\$775,423
	Granular 'B'	\$1,724,461
	Asphalt Base (HL-8)	\$426,736
	Asphalt Top (HL-3)	\$366,800
	Install curb and gutter	\$0
	Install concrete median	\$0
	Install MUP/ sidewalk	\$0
	Install subdrains	\$0
	Install catch basin	\$0
	Install manhole	\$0
	Oil-Grit Separator	\$0
	Full Depth Asphalt removal	\$64,428
	Install Guiderail	\$0
	Install Extruder Terminal	\$0
	Retaining Wall	\$0
	Permanent Pavement Marking	\$239,304
	Side Road Reconstruction	\$114,180
	Contingency (20%)	\$866,883
	Sub Total	\$5,201,300
Streetlights	One side (assume 50m spacing)	\$310,000
	Contingency (20 %)	\$62,000
	Sub Total	\$372,000
Traffic Signals	Permanent (intersection)	\$0
	Temporary (intersection)	\$0
	Contingency (20 %)	\$0
	Sub Total	\$0
Culverts	Removals of existing	\$19,500
	Proposed 400mm Culvert	\$21,000
	Proposed 500mm Culvert	\$7,680
	Proposed 600mm Culvert	\$22,080
	Proposed 1100mm Culvert	\$5,220
	Proposed 1800mm Culvert	\$20,000
	Contingency (20%)	\$19,096
	Sub Total	\$114,576
Bridges	Widening of ex. structure New Structure	\$0
	Contingency (30 %)	\$0
	Sub Total	\$0
Landscape	Landscape (3% of road work cost)	\$140,000
	Contingency (20%)	\$28,000
	Sub Total	\$168,000
Traffic control	Traffic Control and Staging Plan (10% of construction cost)	\$710,000
Engineering	Design and Contract Administration (30% of construction cost)	\$2,130,000
TOTAL		\$11,360,000

HDR Computation

Project 6th LINE EA, CR27 TO ST JOHNS ROAD
 Subject CLASS EA, OPINION OF PROBABLE CO
 Task 6th LINE - ULTIMATE

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Date 8/29/2016
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From: 5th Sideroad To: 10th Sideroad

Component/ Category	Item Description	Total
Utility Conflicts	Hydro Pole Relocation	\$1,610,000
	Water Main Relocation	\$0
	Gas Main Relocation	\$0
	Underground Bell relocation	\$232,100
	Sanitary relocation	\$0
	Rogers relocation	\$0
	Contingency (20%)	\$368,420
	Sub Total	\$2,210,520
Road Work	Excavation/Earthworks	\$956,454
	Install storm sewer	\$0
	Granular 'A'	\$776,815
	Granular 'B'	\$1,735,505
	Asphalt Base (HL-8)	\$424,522
	Asphalt Top (HL-3)	\$366,800
	Install curb and gutter	\$0
	Install concrete median	\$0
	Install MUP/ sidewalk	\$0
	Install subdrains	\$0
	Install catch basin	\$0
	Install manhole	\$0
	Oil-Grit Separator	\$0
	Full Depth Asphalt removal	\$64,428
	Install Guiderail	\$0
	Install Extruder Terminal	\$0
	Retaining Wall	\$0
	Permanent Pavement Marking	\$239,304
	Side Road Reconstruction	\$122,852
	Contingency (20%)	\$937,336
	Sub Total	\$5,624,015
Streetlights	One side (assume 50m spacing)	\$310,000
	Contingency (20 %)	\$62,000
	Sub Total	\$372,000
Traffic Signals	Permanent (intersection)	\$0
	Temporary (intersection)	\$0
	Contingency (20 %)	\$0
	Sub Total	\$0
Culverts	Removals of existing	\$19,500
	Proposed 400mm Culvert	\$16,800
	Proposed 500mm Culvert	\$2,240
	Proposed 600mm Culvert	\$12,880
	Proposed 800mm Culvert	\$1,600
	Proposed 1600mm Culvert	\$24,700
	Contingency (20%)	\$15,544
	Sub Total	\$93,264
Bridges**	Widening of ex. structure New Structure	\$0
	Contingency (30 %)	\$0
	Sub Total	\$0
Landscape	Landscape (3% of road work cost)	\$150,000
	Contingency (20%)	\$30,000
	Sub Total	\$180,000
Traffic control	Traffic Control and Staging Plan (10% of construction cost)	\$710,000
Engineering	Design and Contract Administration (30% of construction cost)	\$2,120,000

TOTAL **\$11,310,000**

** Note any work required to Hwy 400 Bridge shall be costed in the Hwy 400 & 6th Line Interchange EA.

HDR Computation

Project 6th LINE EA, CR27 TO ST JOHNS ROAD
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From: 10th Sideroad To: Yonge Street

Component/ Category	Item Description	Total
Utility Conflicts	Hydro Pole Relocation	\$1,225,000
	Water Main Relocation	\$0
	Gas Main Relocation	\$0
	Underground Bell relocation	\$306,600
	Sanitary relocation	\$0
	Rogers relocation	\$0
	Contingency (20%)	\$306,320
	Sub Total	\$1,837,920
Road Work	Excavation/Earthworks	\$698,117
	Install storm sewer	\$0
	Granular 'A'	\$782,373
	Granular 'B'	\$1,747,975
	Asphalt Base (HL-8)	\$436,182
	Asphalt Top (HL-3)	\$371,494
	Install curb and gutter	\$0
	Install concrete median	\$0
	Install MUP/ sidewalk	\$0
	Install subdrains	\$56,160
	Install catch basin	\$0
	Install manhole	\$0
	Oil-Grit Separator	\$0
	Full Depth Asphalt removal	\$64,071
	Install Guiderail	\$0
	Install Extruder Terminal	\$0
	Retaining Wall	\$0
	Permanent Pavement Marking	\$237,978
	Side Road Reconstruction	\$138,751
	Contingency (20%)	\$906,620
Sub Total	\$5,439,721	
Streetlights	One side (assume 50m spacing)	\$310,000
	Contingency (20 %)	\$62,000
	Sub Total	\$372,000
Traffic Signals	Permanent (intersection)	\$0
	Temporary (intersection)	\$0
	Contingency (20 %)	\$0
	Sub Total	\$0
Culverts	Removals of existing	\$19,500
	Proposed 400mm Culvert	\$12,600
	Proposed 500mm Culvert	\$1,600
	Proposed 600mm Culvert	\$5,060
	Proposed 800mm Culvert	\$8,400
	Proposed 1200mm Culvert	\$18,375
	Contingency (20%)	\$13,107
	Sub Total	\$78,642
Bridges	Widening of ex. structure New Structure	\$0
	Contingency (30 %)	\$0
	Sub Total	\$0
Landscape	Landscape (3% of road work cost)	\$140,000
	Contingency (20%)	\$28,000
	Sub Total	\$168,000
Traffic control	Traffic Control and Staging Plan (10% of construction cost)	\$660,000
Engineering	Design and Contract Administration (30% of construction cost)	\$1,980,000
TOTAL		\$10,540,000

HDR Computation

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From: Yonge Street To: 20th Sideroad

Description:

Component/ Category	Item Description	Total
Utility Conflicts	Hydro Pole Relocation	\$1,645,000
	Water Main Relocation	\$0
	Gas Main Relocation	\$6,000
	Underground Bell relocation	\$305,200
	Sanitary relocation	\$0
	Rogers relocation	\$4,000
	Contingency (20%)	\$392,040
	Sub Total	\$2,352,240
Road Work	Excavation/Earthworks	\$854,125
	Install storm sewer	\$0
	Granular 'A'	\$787,098
	Granular 'B'	\$1,759,055
	Asphalt Base (HL-8)	\$439,800
	Asphalt Top (HL-3)	\$373,973
	Install curb and gutter	\$0
	Install concrete median	\$0
	Install MUP/ sidewalk	\$0
	Install subdrains	\$43,992
	Install catch basin	\$0
	Install manhole	\$0
	Oil-Grit Separator	\$0
	Full Depth Asphalt removal	\$64,365
	Install Guiderail	\$0
	Install Extruder Terminal	\$0
	Retaining Wall	\$0
	Permanent Pavement Marking	\$239,070
	Side Road Reconstruction	\$171,993
	Contingency (20%)	\$946,694
	Sub Total	\$5,680,166
Streetlights	One side (assume 50m spacing)	\$310,000
	Contingency (20 %)	\$62,000
	Sub Total	\$372,000
Traffic Signals	Permanent (intersection)	\$250,000
	Temporary (intersection)	\$100,000
	Contingency (20 %)	\$70,000
	Sub Total	\$420,000
Culverts	Removals of existing	\$36,000
	Proposed 400mm Culvert	\$25,200
	Proposed 500mm Culvert	\$12,000
	Proposed 600mm Culvert	\$20,240
	Contingency (20%)	\$18,688
	Sub Total	\$112,128
Bridges	Widening of ex. structure New Structure	\$0
	Contingency (30 %)	\$0
	Sub Total	\$0
Landscape	Landscape (3% of road work cost)	\$150,000
	Contingency (20%)	\$30,000
	Sub Total	\$180,000
Traffic control	Traffic Control and Staging Plan (10% of construction cost)	\$760,000
Engineering	Design and Contract Administration (30% of construction cost)	\$2,280,000

TOTAL **\$12,160,000**

HDR Computation

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From: 20th Sideroad To: St Johns Road

Component/ Category	Item Description	Total
Utility Conflicts	Hydro Pole Relocation	\$1,575,000
	Water Main Relocation	\$0
	Gas Main Relocation	\$0
	Underground Bell relocation	\$304,700
	Sanitary relocation	\$0
	Rogers relocation	\$4,000
	Contingency (20%)	\$376,740
	Sub Total	\$2,260,440
Road Work	Excavation/Earthworks	\$353,519
	Install storm sewer	\$897,460
	Granular 'A'	\$663,766
	Granular 'B'	\$1,592,112
	Asphalt Base (HL-8)	\$816,951
	Asphalt Top (HL-3)	\$392,137
	Install curb and gutter	\$306,250
	Install concrete median	\$54,975
	Install MUP/ sidewalk	\$653,940
	Install subdrains	\$159,250
	Install catch basin	\$244,000
	Install manhole	\$255,000
	Oil-Grit Separator	\$225,000
	Full Depth Asphalt removal	\$64,008
	Install Guiderail	\$69,820
	Removal of Existing Guiderail	\$3,491
	Install Extruder Terminal	\$12,000
	Retaining Wall	\$92,000
	Permanent Pavement Marking	\$239,720
	Side Road Reconstruction	\$280,392
Contingency (20%)	\$1,475,158	
	Sub Total	\$8,850,949
Streetlights	Both sides (assume 50m spacing)	\$610,000
	Contingency (20 %)	\$122,000
	Sub Total	\$732,000
Traffic Signals	Permanent (intersection)	\$750,000
	Temporary (intersection)	\$300,000
	Contingency (20 %)	\$210,000
	Sub Total	\$1,260,000
Culverts	Removals of existing	\$42,000
	Proposed 400mm Culvert	\$12,600
	Proposed 500mm Culvert	\$3,200
	Proposed 650mm Culvert	\$8,740
	Proposed 800mm Culvert	\$1,827
	Contingency (20%)	\$13,673
	Sub Total	\$82,040
Bridges	Widening of ex. structure	\$0
	New Structure	\$2,898,000
	Contingency (30 %)	\$869,400
	Sub Total	\$3,767,400
Landscape	Landscape (3% of road work cost)	\$230,000
	Contingency (20%)	\$46,000
	Sub Total	\$276,000
Traffic control	Traffic Control and Staging Plan (10% of construction cost)	\$1,130,000
Engineering	Design and Contract Administration (30% of construction cost)	\$3,370,000

TOTAL **\$21,730,000**