

APPENDIX A2 - PROJECT COST ESTIMATE □
South Innisfil Creek Drain - 2019 Improvement □

The estimate of the cost of all labour, equipment and material required to construct this project is as follows:

Note **SP** refers to the **Special Provisions** (in Appendix F) to reference for additional details of work.

SP Item	Description	Approx. Quantity	Cost Estimate
<u>Main Drain</u>			
9.1	Sta. 0+000 to Sta. 1+224		
	Install permanent rock flow check dam	1 ea.	15,750
	Install block nets for fish exclusion	L.S.	3,150
	Removal of fallen trees and debris	4 ea.	1,050
	Clearing and brushing along drain	15 hr	1,580
	Sediment removal and spoil treatment	70 m	2,310
	Woody debris manipulation and placement	L.S.	7,480
	Permanent sediment basin construction	1 ea.	2,630
	Tree plantings along drain	140 m	740
	Seed disturbed areas	450 sq.m	470
9.2	Sta. 1+224 to Sta. 2+165		
	Install block nets for fish exclusion	L.S.	3,150
	Install temporary rock flow check dam	2 ea.	10,500
	Removal of fallen trees and debris	10 ea.	2,630
	Clearing and brushing along drain	8520 sq.m	17,890
	Topsoil stripping	4410 cu.m	9,260
	Channel excavation	16790 cu.m	105,780
	Spoil treatment	16700 cu.m	6,400
	Confluence excavation and bank stabilization	5 ea.	32,760
	Place sod mats	930 sq.m	14,650
	Woody debris manipulation and placement	L.S.	14,970
	Permanent sediment basin construction	3 ea.	7,880
	Tree plantings along drain	260 m	1,360
	Seed disturbed areas	10500 sq.m	11,030
	Miscellaneous construction costs	L.S.	1,310
9.3	Sta. 2+165 to Sta. 2+280		
	Road crossing cleanout	6 ea.	12,600
	Channel excavation	200 cu.m	1,260
	Spoil treatment	260 cu.m	2,730
	Place sod mats	10 sq.m	160
	Seed disturbed areas	120 sq.m	130

SP Item	Description	Approx. Quantity	Cost Estimate
9.4	Sta. 2+280 to Sta. 3+350		
	Install block nets for fish exclusion	L.S.	3,150
	Install temporary rock flow check dam	2 ea.	10,500
	Removal of fallen trees and debris	5 ea.	2,090
	Topsoil stripping	3660 cu.m	7,690
	Channel excavation	24370 cu.m	153,530
	Spoil treatment	24400 cu.m	6,410
	Confluence excavation and bank stabilization	4 ea.	11,460
	Place sod mats	1070 sq.m	16,850
	Woody debris manipulation and placement	L.S.	9,980
	Permanent sediment basin construction	5 ea.	13,130
	Seed disturbed areas	60 sq.m	12,770
9.5	Sta. 3+350 to Sta. 3+588		
	Install block nets for fish exclusion	L.S.	3,150
	Install temporary rock flow check dam	2 ea.	10,500
	Road crossing cleanout	1 ea.	3,150
	Topsoil stripping	1110 cu.m	2,330
	Channel excavation	5760 cu.m	36,290
	Spoil treatment	5760 cu.m	1,510
	Confluence excavation and bank stabilization	2 ea.	4,420
	Place sod mats	230 sq.m	3,620
	Permanent sediment basin construction	1 ea.	2,630
	Tree plantings along drain	205 m	130
	Seed disturbed areas	2750 sq.m	2,890
9.6	Sta. 3+588 to Sta. 5+449		
	Install block nets for fish exclusion	L.S.	3,150
	Install temporary rock flow check dam	2 ea.	10,500
	Clearing and brushing along drain	2200 sq.m	4,620
	Topsoil stripping	3630 cu.m	7,620
	Channel excavation	37540 cu.m	236,500
	Spoil treatment	47 cu.m	14,500
	Confluence excavation and bank stabilization	6 ea.	22,760
	Live stake on drain bends	200 m	1,060
	Place sod mats	1350 sq.m	21,260
	Woody debris manipulation and placement	L.S.	9,980
	Permanent sediment basin construction	6 ea.	15,750
	Tree plantings along drain	410 m	270
	Seed disturbed areas	21020 sq.m	22,070
9.7	Sta. 5+449 to Sta. 6+355		
	Install block nets for fish exclusion	L.S.	3,150
	Install temporary rock flow check dam	2 ea.	10,500
	Clearing and brushing along drain	100 sq.m	210

SP Item	Description	Approx. Quantity	Cost Estimate
9.7	Sta. 5+449 to Sta. 6+355 (cont'd)		
	Topsoil stripping	580 cu.m	1,220
	Road crossing cleanout	2 ea.	6,300
	Channel excavation	13890 cu.m	87,510
	Spoil treatment	890 cu.m	3,640
	Confluence excavation and bank stabilization	3 ea.	12,220
	Place sod mats	890 sq.m	14,020
	Woody debris manipulation and placement	L.S.	2,490
	Permanent sediment basin construction	2 ea.	5,250
	Seed disturbed areas	7410 sq.m	7,780
	Miscellaneous construction costs	L.S.	2,810
9.8	Sta. 6+355 to 7+928		
	Install block nets for fish exclusion	L.S.	3,150
	Install temporary rock flow check dam	2 ea.	10,500
	Removal of fallen trees and debris	2 ea.	520
	Topsoil stripping	1420 cu.m	2,980
	Channel improvements	1573 m	12,390
	Spoil treatment	1573 m	2,640
	Confluence excavation and bank stabilization	2 ea.	11,440
	Place sod mats	160 sq.m	2,520
	Woody debris manipulation and placement	L.S.	14,970
	Permanent sediment basin construction	1 ea.	2,630
	Riffle structure construction	5 ea.	13,130
	Gravel substrate area construction	9 ea.	9,450
	Seed disturbed areas	7620 sq.m	8,000
	Miscellaneous construction costs	L.S.	1,260
9.9	Sta. 7+928 to Sta. 7+950		
	4th Line culvert replacement	L.S.	500,000
	Related appurtenances	L.S.	70,000
9.10	Sta. 7+950 to Sta. 9+918		
	Install block nets for fish exclusion	L.S.	3,150
	Install temporary rock flow check dam	2 ea.	10,500
	Removal of fallen trees and debris	37 ea.	9,710
	Topsoil stripping	1780 cu.m	3,740
	Road crossing cleanout	1 ea.	3,150
	Channel improvements	1973 m	15,540
	Spoil treatment	1958 m	2,610
	Confluence excavation and bank stabilization	12 ea.	37,900
	Live stake on drain bends	110 m	580
	Place sod mats	100 sq.m	1,580
	Woody debris manipulation and placement	L.S.	14,970
	Riffle structure construction	6 ea.	15,750

SP Item	Description	Approx. Quantity	Cost Estimate
9.10	Sta. 7+950 to Sta. 9+918 (cont'd)		
	Gravel substrate area construction	11 ea.	11,550
	Tree plantings along drain	80 m	430
	Seed disturbed areas	6310 sq.m	6,630
Total Estimated Cost of Construction - Main Drain			\$1,940,300

Branch 'A'

10.0	Sta. 0+000 to Sta. 0+650		
	Install temporary rock flow check dam	1 ea.	5,250
	Clearing and brushing along drain	860 sq.m	1,810
	Channel deepening and excavation	500 m	5,250
	Spoil treatment	500 m	420
	Road crossing cleanout	1 ea.	6,300
	Private crossing replacement	L.S.	7,700
Total Estimated Cost of Construction - Branch 'A'			\$26,730

10 Sideroad Branch Drain

11.0	Sta. 0+000 to Sta. 1+448		
	Install temporary rock flow check dam	1 ea.	5,250
	3rd Line culvert replacement	L.S.	115,250
	Channel deepening and cleanout	1394 m	13,750
	Spoil treatment	L.S.	3,210
	Road crossing cleanout	1 ea.	4,730
	Private crossing cleanout	6 ea.	7,560
Total Estimated Cost of Construction - 10 Sideroad Branch Drain			\$149,750

3rd Line Branch Drain

12.0	Sta. 0+000 to Sta. 1+660		
	Install temporary rock flow check dam	1 ea.	5,250
	Outlet splashpad and stabilization	L.S.	790
	Channel deepening and cleanout	1660 m	13,070
	Spoil treatment	L.S.	9,530
	Private crossing cleanout	15 ea.	28,350
Total Estimated Cost of Construction - 3rd Line Branch Drain			\$56,990

Item	Description	Approx. Quantity	Cost Estimate
<u>3rd Line Spur Branch Drain</u>			
13.0	Sta. 0+000 to Sta. 0+780		
	Install temporary rock flow check dam	1 ea.	5,250
	Clearing and brushing along drain	2580 sq.m	5,420
	Outlet splashpad and stabilization	L.S.	2,100
	Channel deepening and cleanout	760 m	5,990
	Spoil treatment	L.S.	1,280
	Road crossing cleanout	1 ea.	3,150
	Private crossing cleanout	1 ea.	1,890
Total Estimated Cost of Construction - 3rd Line Spur Branch Drain			\$25,080
14.0	Construction Contingencies and Overhead		
	Mobilization/demobilization	L.S.	63,000
	Traffic control	L.S.	15,750
	Channel construction	L.S.	46,970
	Aquatics and offsetting	L.S.	31,780
	4th Line culvert replacement	L.S.	50,000
	Lump sum contingency	L.S.	200,000
Total Construction Overhead and Contingencies			\$407,500
<u>Total Estimated Cost of Construction</u>			
<u>South Innisfil Creek Drain 2019 Improvement</u>			<u>\$2,606,350</u>

SUMMARY OF COSTS

Total Estimated Cost of Construction		2,606,350
Allowances to Owners (Sections 29, 30 & 33)		771,610
Engineering		742,000
Engineering	500,000	
Aquatic and Terrestrial (SARA)	30,000	
Attendance at Meetings	30,000	
Reproduce/Collate Report	30,000	
Meeting to Consider	5,000	
Tendering	15,000	
Contract Award	5,000	
Licence to Collect Fish, Correspondence and Reporting	2,000	
Contract Administration	75,000	
Road Crossing Inspection	5,000	
Agency Concerns (DFO, MNRF, NVCA)	20,000	
DFO Monitoring	25,000	
Administration and Financing		215,853
H.S.T.	59,000	
NVCA Fee	2,500	
Interest	117,200	
Contingency	37,153	
Previous Engineering Fees - Dillon Consulting		1,025,087
<u>Total Estimated Project Cost</u>		
<u>South Innisfil Creek Drain - 2019 Improvement</u>		<u>\$ 5,360,900</u>

NOTE: The above summary contains estimates of cost only. It is emphasized that these estimates do NOT include costs to defend the drainage report should appeals be filed with the Court of Revision, the Drainage Tribunal and/or the Drainage Referee. Should additional costs be incurred, unless otherwise directed, the additional costs would be distributed in a prorata fashion over the assessments contained in the Schedule of Assessment and as may be varied under the Act.