

APPENDIX 'A'

GEOTECHNICAL REPORT

APPENDIX 'A' - GEOTECHNICAL REPORT

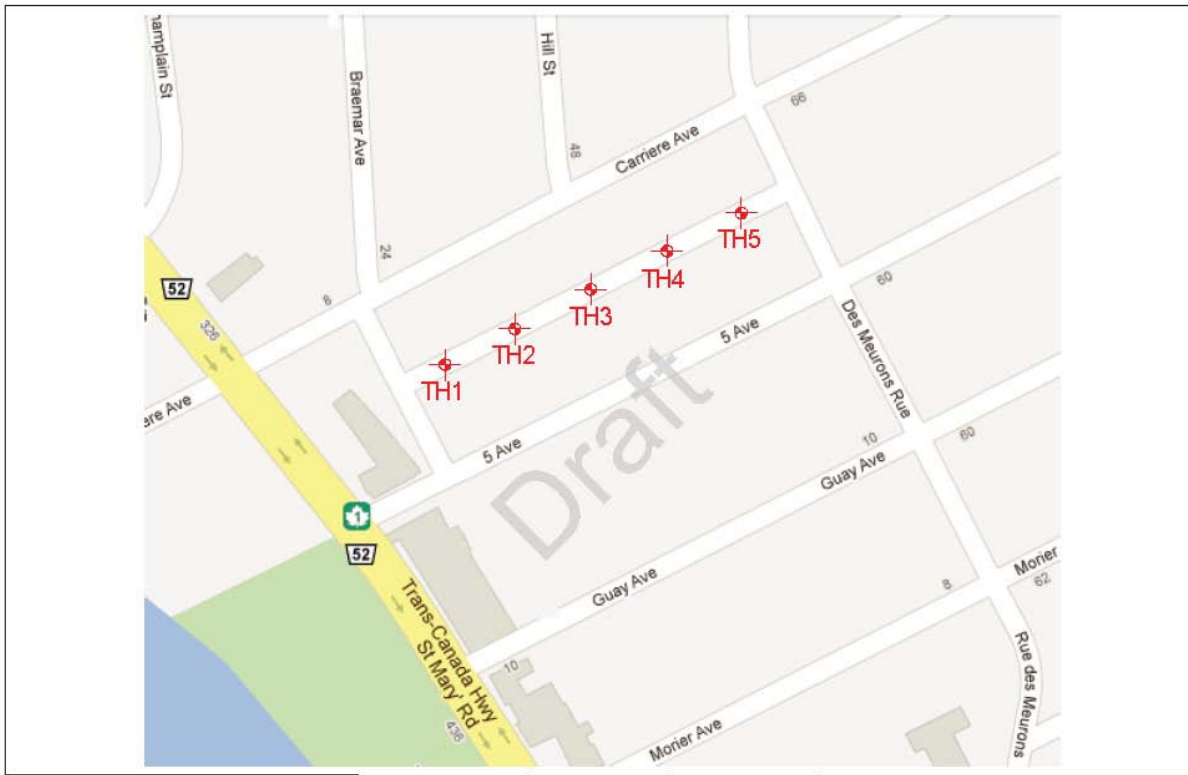
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The geotechnical report is provided to aid in the Contractor's evaluation of the existing soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. However, variations in soil conditions may exist between test holes and fluctuations in groundwater levels can be expected seasonally and may occur as a result of construction activities. The nature and extent of variations may not become evident until construction commences.


Geotechnical Report for the Fifth Avenue/ Carriere Avenue Alley

Test Hole Locations



 <p>THE NATIONAL TESTING LABORATORIES LIMITED <small>Established in 1923</small></p>	Project No. KGS-1111	Drawn by: NB	Figure: 1	Testhole Location Plan Fifth Ave. and Carriere Ave. Alley St. Mary's Road to Des Meurons Rue 2011 Alley Renewals
	Date: Aug 27, 2011	Reviewed by: GL	Scale: NTS	


Test Hole Log for Test Hole 1

TESTHOLE TH1						
Project Name: 2011 Alley Renewals Client: KGS Group Drilling Contractor: Bonita Enterprises Drilling Method: 150 mm Auger Location: Fifth Ave. and Carriere Ave., St. Mary's Road to Des Meurons Rue		Depth of Testhole: 2.1 m Logged by: Nestor Abarca Date Drilled: August 27, 2011 Reviewed by: German Leal				
Depth (m)	Symbol	Description	Water Content (%)			
			20	40	60	80
0.5	[Symbol: Dotted pattern]	Granular Fill - tan, compact, dry - 25 mm maximum aggregate size Clay Fill - black, stiff, moist, high plasticity - some fine gravel - trace organic material	●29			
1.0	[Symbol: Diagonal lines]	Clay - black, stiff, moist, high plasticity - trace organic material - grey below a depth of 1.4 m	●36			
1.5	[Symbol: Diagonal lines]		●37			
2.0	[Symbol: Diagonal lines]	Clayey Silt - brown, stiff, moist, medium plasticity - soft below 1.8 m	●39			
2.5	[Symbol: Diagonal lines]		●31			
2.0	[Symbol: Diagonal lines]		●22			
2.5	[Symbol: Diagonal lines]		●28			
<ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole was terminated at a depth of 2.1 m. 						


Test Hole Log for Test Hole 2

Depth (m)		Symbol	Description	Water Content (%)			
				20	40	60	80
0.0 - 0.1			Granular Fill - tan, compact, dry - 25 mm maximum aggregate size				
0.1 - 0.5			Clay Fill - black, stiff, moist, high plasticity - trace fine to medium sand		●32		
0.5 - 2.0			Clay - black, stiff, moist, high plasticity - grey below a depth of 0.9 m - trace silt below a depth of 1.1 m		●32		
1.0					●37		
1.5					●38		
2.0					●33		
2.0 - 2.1			Clayey Silt - brown, stiff, moist, medium plasticity		●32		
2.1 - 2.5			<ul style="list-style-type: none"> No groundwater seepage or soil sloughing was observed during or upon completion of drilling. Testhole was terminated at a depth of 2.1 m. 		●26		






Test Hole Log for Test Hole 3

TESTHOLE TH3						
Project Name: 2011 Alley Renewals Client: KGS Group Drilling Contractor: Bonita Enterprises Drilling Method: 150 mm Auger Location: Fifth Ave. and Carriere Ave., St. Mary's Road to Des Meurons Rue		Depth of Testhole: 2.1 m Logged by: Nestor Abarca Date Drilled: August 27, 2011 Reviewed by: German Leal				
Depth (m)	Symbol	Description	Water Content (%)			
			20	40	60	80
	☉	Granular Fill - tan, compact, dry - 25 mm maximum aggregate size				
	☉	Clay Fill - black, stiff, moist, high plasticity - trace fine to coarse sand and silt		●33		
0.5	☉	Clay - black, stiff, moist, high plasticity - trace fine to coarse sand - trace silt below 0.8 m - grey below a depth of 1.1 m		●37		
1.0	☉			●33		
1.5	☉	Clayey Silt - tan, soft, moist, medium plasticity - stiff below 1.5 m		●31		
	☉			●26		
2.0	☉	Clay - brown, stiff, moist, high plasticity - trace silt		●34		
	☉			●38		
2.5		<ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole was terminated at a depth of 2.1 m. 				

Test Hole Log for Test Hole 4

TESTHOLE TH4						
Project Name: 2011 Alley Renewals Client: KGS Group Drilling Contractor: Bonita Enterprises Drilling Method: 150 mm Auger Location: Fifth Ave. and Carriere Ave., St. Mary's Road to Des Meurons Rue		Depth of Testhole: 2.1 m Logged by: Nestor Abarca Date Drilled: August 27, 2011 Reviewed by: German Leal				
Depth (m)	Symbol	Description	Water Content (%)			
			20	40	60	80
	☉	Granular Fill - tan, compact, dry - 25 mm maximum aggregate size				
	⊗	Clay Fill - black, stiff, moist, high plasticity - trace medium sand and organic material		●28		
0.5	⊗	Clay - black, stiff, moist, high plasticity - grey and trace silt below a depth of 1.1 m		●36		
1.0	⊗			●26		
1.5	⊗	Clayey Silt - tan, soft, moist, high plasticity		●28		
2.0	⊗			●24		
2.5	⊗			●25		
		<ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole was terminated at a depth of 2.1 m. 				

Test Hole Log for Test Hole 5

TESTHOLE TH5						
Project Name: 2011 Alley Renewals Client: KGS Group Drilling Contractor: Bonita Enterprises Drilling Method: 150 mm Auger Location: Fifth Ave. and Carriere Ave., St. Mary's Road to Des Meurons Rue		Depth of Testhole: 2.1 m Logged by: Nestor Abarca Date Drilled: August 27, 2011 Reviewed by: German Leal				
Depth (m)	Symbol	Description	Water Content (%)			
			20	40	60	80
0.5		Granular Fill - tan, compact, dry - 25 mm maximum aggregate size				
		Clay Fill - brown, stiff, moist, high plasticity - trace fine sand and silt	●26			
1.0		Clay - black, stiff, moist, high plasticity - trace fine sand	●28			
			●33			
			●31			
1.5		Clayey Silt - tan, soft, moist, high plasticity	●27			
			●24			
2.0		<ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole was terminated at a depth of 2.1 m. 	●24			
2.5						