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APPENDIX 'A' GEOTECHNICAL REPORT

APPENDIX 'A' - GEOTECHNICAL REPORT

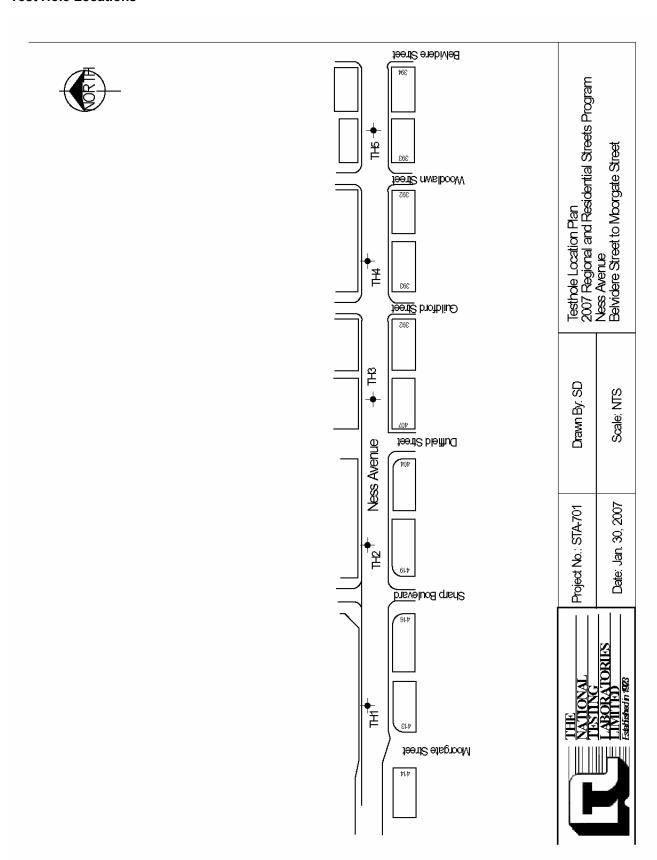
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The geotechnical report is provided to aid in the Contractor's evaluation of the existing pavement structure and/or soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. However, variations in pavement structure and/or 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 Ness Avenue

Test Hole Locations



Summary of Core Samples

2007 City of Winnipeg Regional and Residential Streets Program Geotechnical Investigation Ness Avenue Belvidere Street to Moorgate Street

or	e :	Sa	ample	S			
nits	Plasticity	Index	-		10	92	-
Atterberg Limits	Plastic	Limit	-	-	16	23	-
∀	Liquid	Limit	-	ı	56	66	-
	Clay	(%)	-	ī	22.8	85.2	•
Particle Size Analysis	Silt	(%)	-	ı	64.2	13.7	-
Particle Si.	Sand	(%)	ı	i	13.0	1.1	-
	Gravel	(%)	-	-	0'0	0.0	-
Moisture	Content	(%)	-	-	20.0	41.2	-
Sample	Depth	(m)		ı	1.2	1.8	-
	Sample	Description	Y/N	Y/N	Clayey Silt	Clay	N/A
Pavement Structure Material	Thickness	(mm)	-	-	1	1	09
Pavement Stru		Type	V/N	V/N	W/N	W/A	Granular
rface	Thickness	(mm)	52/198	70/200	861/22	007/09	90/205
Pavement Surface		Type	Asphalt/Concrete	Asphalt/Concrete	Asphalt/Concrete	Asphalt/Concrete	Asphalt/Concrete
	Testhole	Location	WB Ness Ave., 12.5 m W of E property line of 413 Moorgate St., 1.9 m N of S curb	WB Ness Ave., 12.5 m E of W property line of 404 Duffield St., 1.8 m S of N curb	WB Ness Ave., 18.5 m W of E property line of 407 Duffield St., 1.7 m N of S curb	WB Ness Ave., 17.5 m E of W property line of 393 Guildford St., 2.0 m S of N curb	WB Ness Ave., 19.0 m E of W property line of 403 Woodlawn St., 1.6 m N of S curb
	Testhole	□	TH1	TH2	ЕНТ	TH4	TH5

TESTHOLE TH1



Date Drilled: January 17, 2007 Depth of Testhole: 2.1 m

Project Name: 2007 Regioinal and Residential Streets Program

Client: Stantec Consulting Ltd.

Site: Ness Avenue, Belvidere Street to Moorgate Street Logged by: Kurtis Kulchyski

Testhole Location: WB, 12.5 m W of the E property line of 413 Moorgate St., 1.9 m N of the S curb

	,	Subsurface Profile		Laboratory Testing				
Depth	Symbol	Description	Water Content (%) 0 20 40 60 8					
0.0-		Ground Surface	\parallel					
0.0-		Asphalt	76			-7		
-	7474 7474 7474 7474 744	Concrete		į	į	İ		
0.5-		Clay - black/grey, moist, firm, high plasticity, some silt, trace sand at the surface						
- 1.0- - -		Clayey Silt - tan, moist, soft, low plasticity, with clay	_	*				
1.5- -		Clay - brown, moist, firm, high plasticity, some silt, varved with layers of silt						
2.0-		Clayey Silt - tan, moist, soft, low plasticity, with clay Clay - brown, moist, firm, high plasticity, some silt		*				
2.5-		End of testhole at 2.1 m below grade. No water seepage or soil sloughing were observed during or after the completion of drilling.						

TESTHOLE TH2

THE NATIONAL TESTING LABORATORIES LIMITED SCALES OF 1912

Project Name: 2007 Regioinal and Residential Streets Program

Client: Stantec Consulting Ltd.
Site: Ness Avenue, Belvidere Street to Moorgate Street

Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski

Date Drilled: January 17, 2007

Testhole Location: WB, 12.5 m E of the W property line of 404 Duffield St., 1.8 m S of the N curb

		Subsurface Profile		Laboratory Testing						
Depth	Symbol	Description	0 +	Water Content (%) 0 20 40 60 80						
0.0-		Ground Surface	\top							
0.0-		Asphalt	7							
-		Concrete								
0.5-		Clay - black/grey, moist, firm, high plasticity, some silt - brown below 1.2 m - trace silt layers below 1.7 m								
1.0-					\ \ \					
1.5- -					•					
2.0-										
- - 2.5–		End of testhole at 2.1 m below grade. No water seepage or soil sloughing were observed during or after the completion of drilling.								

TESTHOLE TH3

Date Drilled: January 17, 2007

Project Name: 2007 Regioinal and Residential Streets Program

Client: Stantec Consulting Ltd.

Depth of Testhole: 2.1 m Site: Ness Avenue, Belvidere Street to Moorgate Street Logged by: Kurtis Kulchyski

Testhole Location: WB, 18.5 m W of the E property line of 407 Duffield St., 1.7 m N of the S curb

		Subsurface Profile	Laboratory 1	esting	j		
Depth (m)	Symbol	Description	Moisture Content (%) PLLL 0 25 50 75 100	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
0.0-		Ground Surfaœ					
0.0-		Asphalt][1				
-	10 5 2 5 0 0 0 0 0 0 10 0 0 0 0 10 0 0 0 0 10 0 0 0	Concrete					
0.5-		Clay - black/grey, moist, firm, high plasticity, some silt					
1.0- - -		Clayey Silt - tan, moist, soft, low plasticity, with clay, some fine grained sand		0.0	13.0	64.2	22.8
1.5- - - - - 2.0-		Clay - brown, moist, firm, high plasticity, some silt					
- - 2.5-		End of testhole at 2.1 m below grade. No water seepage or soil sloughing were observed during or after the completion of drilling.					

TESTHOLE TH4

Date Drilled: January 17, 2007

Project Name: 2007 Regioinal and Residential Streets Program

Client: Stantec Consulting Ltd.

Depth of Testhole: 2.1 m Site: Ness Avenue, Belvidere Street to Moorgate Street Logged by: Kurtis Kulchyski

Testhole Location: WB, 17.5 m E of the W property line of 393 Guildford St., 2.0 m S of the N curb

		Subsurface Profile	Laboratory Testing	
Depth (m)	Symbol	Description	Moisture Content (%) PLLL 0 25 50 75 100 Sand (%) 0 25 50 75 100	Clay (%)
0.0-		Ground Surface		
0.0		Asphalt		
-	747610 767610 767610	Concrete		
0.5- - -		Clay - black/grey, moist, firm, high plasticity, some silt, trace fine grained gravel and fine to coarse grained sand at the surface - light grey below 0.6 m, intermediate plasticity, with silt		
1.0-		Clayey Silt - tan, moist, soft to firm, low plasticity, with clay		
1.5- - - -		Clay - brown, moist, firm, high plasticity, some silt	0.0 1.1 13.7	85.2
2.0-		End of testhole at 2.1 m below grade. No water seepage or soil sloughing were		
2.5-		observed during or after the completion of drilling.		

TESTHOLE TH5

THE NATIONAL TESTING LABORATORIES LIMITED SANABLE OF 182

Project Name: 2007 Regioinal and Residential Streets Program Client: Stantec Consulting Ltd.

Site: Ness Avenue, Belvidere Street to Moorgate Street

Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski

Date Drilled: January 17, 2007

Testhole Location: WB, 19.0 m E of the W property line of 403 Woodlawn St., 1.6 m N of the S curb

Subsurface Profile						Laboratory Testing				
Depth	Symbol	Description	0	Water Content (%) 0 20 40 60 80						
0.0-		Ground Surface	\parallel							
0.0-		Asphalt][
-	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Concrete								
-		Granular Fill	11		• ¦	-				
0.5-		- 20 mm maximum aggregate Clay Fill - black/grey, moist, firm, high plasticity, trace fine grained gravel, trace fine to coarse grained sand		/						
-		Clay		-						
1.0- - - -		- grey, moist, firm, high plasticity, some silt - brown below 1.4 m		\						
1.5- - -					\ \ \ \ \ \					
2.0-										
-	-	End of testhole at 2.1 m below grade.				į				
2.5-		No water seepage or soil sloughing were observed during or after the completion of drilling.								

Pavement Core Photos









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