APPENDIX 'A' GEOTECHNICAL REPORT

APPENDIX 'A' - GEOTECHNICAL REPORT

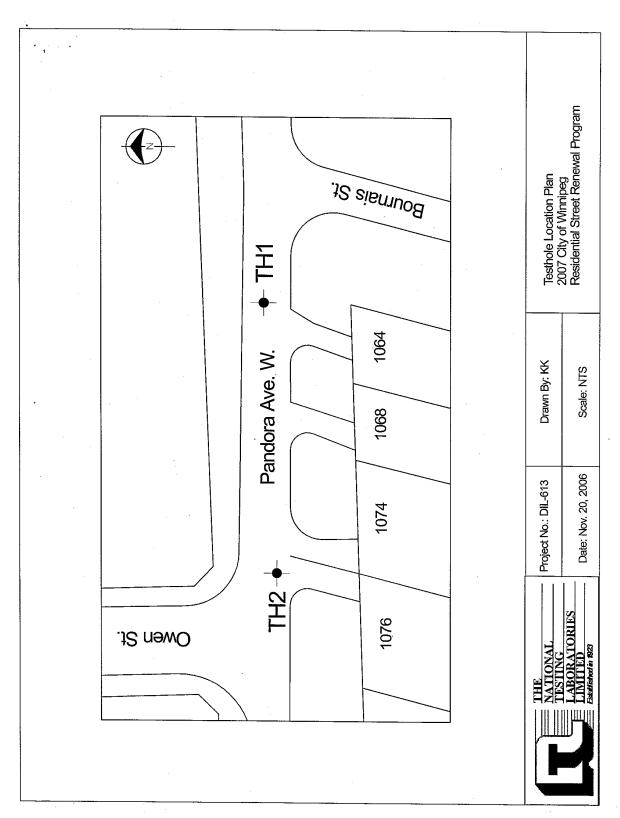
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The geotechnical report is provided to aid in the Contractor's evaluation of the existing pavement structure and/or soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. 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 Pandora Avenue West from Owen Street to Bournais Street

Test Hole Locations



Summary of Core Samples

2007 City of Winnipeg Residential Street Renewal Geotechnical Investigation Pandora Avenue West Owen Street to Bournais Street

		Pavement Surface		Pavement Structure Material			Sample Moistu		re Particle Size Analysis				Atterberg Limits		
Testhole	Testhole Location	Type	Thickness (mm)	Type	Thickness (mm)	Sample Description	Depth (m)	Content (%)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
TU1	Centre of entrance to Lot 1076, eastbound lane, 2.2 m N of S shoulder	Annhalt	200	N/A	N/A	Clay	0.6	30.5	0	1.3	27.5	71.2	76	21	55
						Silt	1.1	20.8	0	3.7	76.2	20.1		c	
TH2	3.0 m W of E property line of lot 1064, appox. centre of road, 3.1 m S of N shoulder	Asphalt	100	Granular	200	-	-	-		-	-	-	-	-	

TESTHOLE TH1

THE NATIONAL TESTING LABORATORIES LIMITED EMIRADOR 1923

Project Name: 2007 Residential Street Renewal

Client: Dillon Consulting Limited

Site: Pandora Ave. W., Owen St. to Bournais St.

Date Drilled: November 13, 2006
Depth of Testhole: 2.2 m
Logged by: Kurtis Kulchyski

Testhole Location: EB lane, centre of entrance to Lot 1076, 2.2 m from S shoulder

	Γ	Subsurface Profile	Laboratory Testing									
Depth (m)	Symbol	Description	Moisture Content (%) PLLL 0 25 50 75 100	Gravel (%)	Sand (%)	Silt (%)	Clay (%)					
0.0		Ground Surface ASPHALT										
-		CLAY										
- -		- black to grey, stiff, moist, high plasticity, thinly varved with silt	•									
0.5-		•	1									
-				0.0	1.3	27.5	71.2					
-		SILT										
1.0-		- tan, soft, moist, low plasticity, with clay - non-plastic below 1.1 m, some clay		0.0	3.7	76.2	20.1					
1.5-		CLAY - brown, stiff, moist, high plasticity - thinly varved with silt										
2.0-		SILT - tan, soft, moist, low plasticity, some										
-		clay, trace sand seams										
2.5~		End of testhole at 2.2 m below grade. No water seepage or sloughing were observed during or after completion of drilling.										

Test Hole Log for Test Hole #2

TESTHOLE TH2

THE
NATIONAL
TESTING
LABORATORIES
LIMITED

Project Name: 2007 Residential Street Renewal

Client: Dillon Consulting Limited

Site: Pandora Ave. W., Owen St. to Bournais St.

Date Drilled: November 13, 2006

Depth of Testhole: 2.2 m Logged by: Kurtis Kulchyski

Testhole Location: CL of road, 3.0 m W of E property line of Lot 1064, 3.1 m S of N shoulder

	Laboratory Testing									
Depth	Symbol	Description	Water Content (%) 0 20 40 60 80 100							
		Ground Surface	4							
0.0		ASPHALT	- -	- _T -						
-	97029 .000	GRANULAR BASE - dark brown, moist, 20 mm down crushed gravel		 	 					
0.5-		GRANULAR BACKFILL - tan, moist, uncrushed, with 50 mm maximum size gravel		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
1.0-										
1.5-										
2.0-										
2.5-		End of testhole at 2.2 m below grade. No water seepage into the testhole was observed. Sloughing of the pitrun was observed during drilling. The testhole was placed approximately in the centre of the road to avoid the underground water service located along the north shoulder of the road. The presence of granular backfill would indicate that the testhole is still within the water service trench.		1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					

Pavement Core Photos

2007 City of Winnipeg Residential Street Renewal Pandora Avenue West Owen Street to Bournais Street





