

LAURA STREET ALEXANDER AVENUE TO LOGAN AVENUE 2007 CITY OF WINNIPEG REGIONAL AND RESIDENTIAL STREETS PROGRAM

Prepared for
Stantec Consulting Ltd.
905 Waverley Street
Winnipeg, Manitoba
R3T 5P4

Prepared by

The National Testing Laboratories Limited

199 Henlow Bay

Winnipeg, Manitoba

R3Y 1G4

2007 City of Winnipeg Regional and Residential Streets Program Geotechnical Investigation Laura Street

Alexander Avenue to Logan Avenue

				Pavement Str	Pavement Structure Material		Sample	Moisture		Particle Si	ze Analysis		P	Atterberg Lir	nits
Testh	nole Testhole		Thickness		Thickness	Sample	Depth	Content	Gravel	Sand	Silt	Clay	Liquid	Plastic	Plasticity
ID	Location	Type	(mm)	Type	(mm)	Description	(m)	(%)	(%)	(%)	(%)	(%)	Limit	Limit	Index
TH	1.6 m N of N property line of 253 Laura St., 1.2 m W of E curb	Asphalt/Concrete	60/165	N/A	N/A	Clayey Silt	1.5	21.2	0.0	7.4	69.7	22.9	21	17	4
ТН	2 5.2 m N of N property line of 263 Laura St., 1.8 m E of W curb	Asphalt/Concrete	65/195	N/A	N/A	Clay	1.8	36.1	0.0	1.5	19.2	79.3	73	19	54



Date Drilled: January 18, 2007

Project Name: 2007 Regional and Residential Streets Program

Client: Stantec Consulting Ltd.

Depth of Testhole: 2.1 m Site: Laura Street, Alexander Avenue to Logan Avenue Logged by: Kurtis Kulchyski

Testhole Location: 1.6 N of the N property line of 253 Laura St., 1.2 m W of the E curb

		Subsurface Profile			ĺ	Laboratory T	esting	3		I
Depth (m)	Symbol	Description	PL	Moistu	re Con	tent (%)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
			0	25	50	75 100	Gra	San	Silt	Cla
0.0		Ground Surface	#-							
_		Asphalt			1					
_		Concrete		 						
0.5- 		Clay Fill - black/brown, moist, firm, high plasticity, some fine grained gravel, some fine to coarse grained sand								
1.0 <i>-</i>		Clay - light brown, moist, soft, intermediate plasticity, some silt			 					
1.5 - - - - - - 2.0 -		Clayey Silt - tan, moist, firm to soft, low plasticity, some clay, trace fine grained sand		H			0.0	7.4	69.7	22.8
2.0-		Clay - brown, moist, firm, high plasticity			i ! !					
-	-	End of testhole at 2.1 m below grade		 	 					
- 2.5-		No water seepage or soil sloughing were observed during or after the completion of drilling.		 	 					



Date Drilled: January 18, 2007

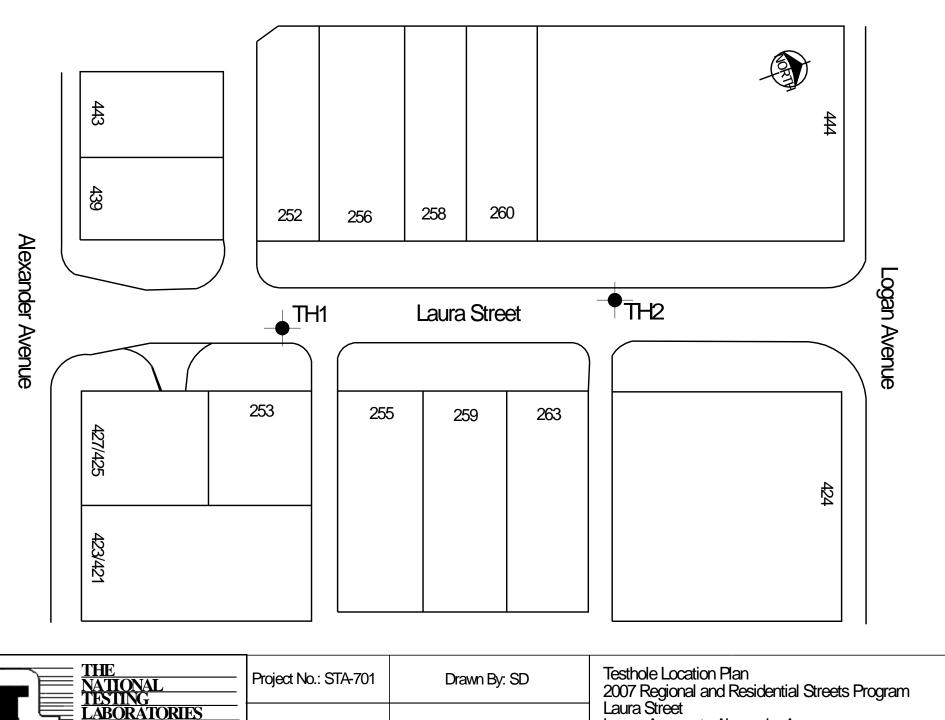
Project Name: 2007 Regional and Residential Streets Program

Client: Stantec Consulting Ltd.

Depth of Testhole: 2.1 m Site: Laura Street, Alexander Avenue to Logan Avenue Logged by: Kurtis Kulchyski

Testhole Location: 5.2 m N of the N property line of 263 Laura St., 1.8 m E of the W curb

		Subsurface Profile				Laboratory 1	Γestin	9		
Depth (m)	Symbol	Description	PL.	Moistu	re Con 50	tent (%) LL 75 100	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
0.0		Ground Surface								
0.0		Asphalt	<u> </u>	-	T					
-		Concrete		 	 					
0.5-		Clay Fill - brown, moist, firm, high plasticity, some fine grained gravel, some fine to coarse grained sand, some silt - trace fine grained gravel below 0.5 m, trace fine to coarse grained sand			•					
1.0-										
1.5-		Clay - black, moist, firm, high plasticity, some silt layers - brown below 1.3 m					0.0	1.5	19.2	79.3
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.								





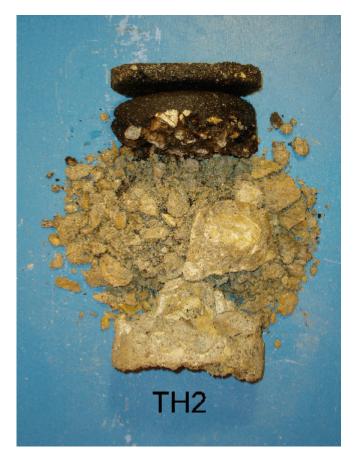
Project No.: STA-701	Drawn By: SD
Date: Jan. 29, 2007	Scale: NTS

2007 Regional and Residential Streets Program Laura Street Logan Avenue to Alexander Avenue

2007 City of Winnipeg Regional and Residential Streets Program Laura Street Alexander Avenue to Logan Avenue









VICTOR STREET ST. MATTHEWS AVENUE TO PORTAGE AVENUE 2007 CITY OF WINNIPEG REGIONAL AND RESIDENTIAL STREETS PROGRAM

Prepared for
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2007 City of Winnipeg Regional and Residential Streets Program Geotechnical Investigation Victor Street

St. Matthews Avenue to Portage Avenue

		Pavement Su	rface	Pavement Str	ucture Material		Sample	Moisture		Particle Si	ze Analysis		Д	Atterberg Lir	mits
Testh	le Testhole		Thickness		Thickness	Sample	Depth	Content	Gravel	Sand	Silt	Clay	Liquid	Plastic	Plasticity
ID	Location	Type	(mm)	Type	(mm)	Description	(m)	(%)	(%)	(%)	(%)	(%)	Limit	Limit	Index
ТН	3.8 m S of N property line of 332 Victor St., 1.6 m E of W curb	Asphalt/Concrete	145/185	Granular	50	Clayey Silt	1.2	14.1	0.0	5.7	66.5	27.8	27	16	11
TH	5.5 m N of S property line of 350 Victor St., 1.4 m W of E curb	Concrete	200	Limestone	870	Clay	1.8	33.2	0.0	1.2	11.7	87.1	84	22	62



Date Drilled: January 18, 2007

Project Name: 2007 Regional and Residential Streets Program

Client: Stantec Consulting Ltd.

Depth of Testhole: 2.1 m Site: Victor Street, St. Matthews Avenue to Portage Avenue Logged by: Kurtis Kulchyski

Testhole Location: 3.8 m S of the N property line of 332 Victor St., 1.6 m E of the W curb

Depth (m)	Symbol									
	Symbol	Description	PL 0	Moisture C 25 50		%) LL 110	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
		Ground Surface						0,	0,	
0.0		Asphalt	<u> </u>		 					
- 100 - 100 - 100 - 100 - 100		Concrete - freeze thaw damage at bottom of layer			 					
0	2000	Granular Fill - maximum 20 mm aggregate size		; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	 					
0.5		Clay - brown, wet at the surface of the layer, moist below surface, soft to firm, high plasticity, trace silt - with silt below 0.6 m								
1.0-										
		Clayey Silt - tan, moist, firm, low plasticity, some clay, trace fine grained sand			 		0.0	5.7	66.5	27.8
1.5-		Clay - brown, moist, firm, high plasticity, with silt layers - some silt below 1.7 m								
2.0-					 					
-		End of testhole at 2.1 m below grade.			i !					
2.5		No water seepage or soil sloughing were observed during or after the completion of drilling.			 					



Date Drilled: January 18, 2007

Project Name: 2007 Regional and Residential Streets Program

Client: Stantec Consulting Ltd.

Depth of Testhole: 2.1 m Site: Victor Street, St. Matthews Avenue to Portage Avenue Logged by: Kurtis Kulchyski

Testhole Location: 5.5 m N of the S property line of 350 Victor St., 1.4 m W of the E curb

		Subsurface Profile	Laboratory Testing	
Depth (m)	Symbol	Description	Noisture Content (%) Sand (%) Sit (%)	Clay (%)
		Ground Surface		
0.0-		Concrete Limestone Fill		
0.5-		- top 150 mm consists of white limestone with a maximum aggregate size of 20 mm - rust/red limestone below 150 mm; maximum aggregate size could not be determined due to the grinding effect of the auger		
1.0-	0 G	Clay - brown, moist, stiff to firm, high		
1.5-		plasticity, trace silt		
2.0-			0.0 1.2 11.7	87.1
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.		



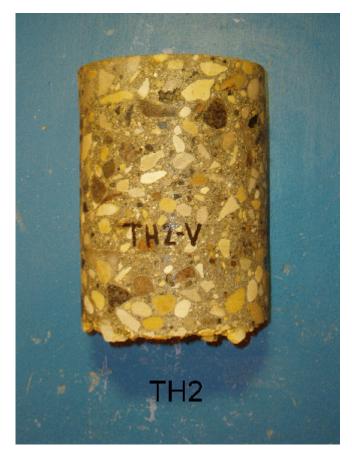
	310		326		332			340			348			354	St. M	
				_	TH'	1		Vi	ctor S	Street		-	→TH2	2	Watthews Avenue	
319		325		331			337			343		35	1		Venue	

THE NATIONAL TESTING	Project No.: STA-701	Drawn By: SD	Testhole Location Plan 2007 Regional and Residential Streets Program
LABORATORIES LIMITED Established in 1923	Date: Jan. 29, 2007	Scale: NTS	Victor Street St. Matthews Avenue to Portage Avenue

2007 City of Winnipeg Regional and Residential Streets Program Victor Street St. Matthews Avenue to Portage Avenue



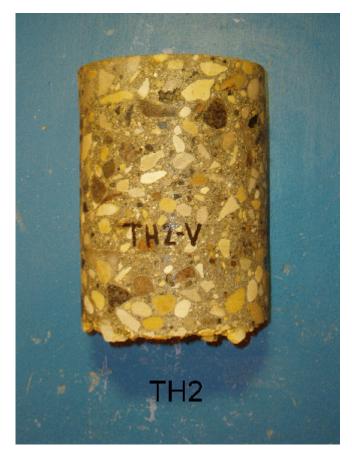




2007 City of Winnipeg Regional and Residential Streets Program Victor Street St. Matthews Avenue to Portage Avenue









TORONTO STREET NOTRE DAME AVENUE TO WELLINGTON AVENUE 2007 CITY OF WINNIPEG REGIONAL AND RESIDENTIAL STREETS PROGRAM

Prepared for
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2007 City of Winnipeg Regional and Residential Streets Program Geotechnical Investigation Toronto Street Notre Dame Avenue to Wellington Avenue

		Pavement Su	rface	Pavement Str	ucture Material		Sample	Moisture		Particle Siz	ze Analysis		F	Atterberg Lir	nits
Testhole ID	Testhole Location	Туре	Thickness (mm)	Туре	Thickness (mm)	Sample Description	Depth (m)	Content (%)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
TH1	1.3 m N of N property line of 720 Toronto St., 1.5 m E of W curb	•	35/195	Granular	80	Silt	1.2	16.3	0.0	5.7	72.9	21.4	24	18	6
TH2	1.6 m N of S property line of 757 Toronto St., 1.6 m W of E curb	Asphalt/Concrete	77/168	Granular	65	Clau	1.8	42.2	0.0	0.4	9.4	90.2	91	24	67
TH3	4.4 m S of N property line of 790 Toronto St., 1.2 m E of W curb	Asphalt/Concrete	40/180	Granular	50	N/A	-	-	-	-	-	-	-	-	-



Date Drilled: January 18, 2007

Project Name: 2007 Regional and Residential Streets Program

Client: Stantec Consulting Ltd.

Depth of Testhole: 2.1 m Site: Toronto Street, Notre Dame Avenue to Wellington Avenue Logged by: Kurtis Kulchyski

Testhole Location: 1.3 m N of the N property line of 720 Toronto St., 1.5 m E of the W curb

		Subsurface Profile			L	_aboratory	Γestin	3	ı	
Depth (m)	Symbol	Description	PL 0		re Cont	t ent (%) LL 75 100	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
						75 100	ō	ဟိ	. <u>S</u>	ਹ
0.0	-	Ground Surface		<u>-</u>	<u>-</u>					
-		Asphalt Concrete								
-	8-8-46. 3-8-3-3									
-	9000 Y	Granular Fill		İ	i					
-		- 20 mm maximum aggregate size Clay								
0.5-		- brown, moist, firm, high plasticity, trace thin silt layers								
1.0-		Silt - tan, moist to dry, firm, low plasticity, some clay, trace fine grained sand					0.0	5.7	72.9	21.4
1.5 – - -		Clay - brown, moist, stiff to firm, high plasticity, trace silt	-							
2.0-		End of testhole at 2.1 m below grade. No water seepage or soil sloughing were observed during or after the completion of drilling.	-							
2.5-	-	5. S			 					



Date Drilled: January 18, 2007

Project Name: 2007 Regional and Residential Streets Program

Client: Stantec Consulting Ltd.

Depth of Testhole: 2.1 m Site: Toronto Street, Notre Dame Avenue to Wellington Avenue Logged by: Kurtis Kulchyski

Testhole Location: 1.6 m N of the S property line of 757 Toronto St., 1.6 m W of the E curb

		Subsurface Profile		L	aboratory 1	esting	j		
Depth (m)	Symbol	Description	PL 0	Moisture Cont	ent (%) LL 75 100	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
0.0		Ground Surface							
0.0	7.77	Asphalt] [-	·					
-		Concrete							
-	97089	Granular Fill - 20 mm maximum aggregate size Clay		•					
0.5-		- brown, moist, soft to firm, high plasticity, with silt layers - trace silt below 1.2 m		•					
1.0-									
1.5-						0.0	0.4	9.4	90.2
2.0-			-						
_		End of testhole at 2.1 m below grade.							
2.5-	-	No water seepage or soil sloughing were observed during or after the completion of drilling.							



Date Drilled: January 18, 2007

Project Name: 2007 Regional and Residential Streets Program

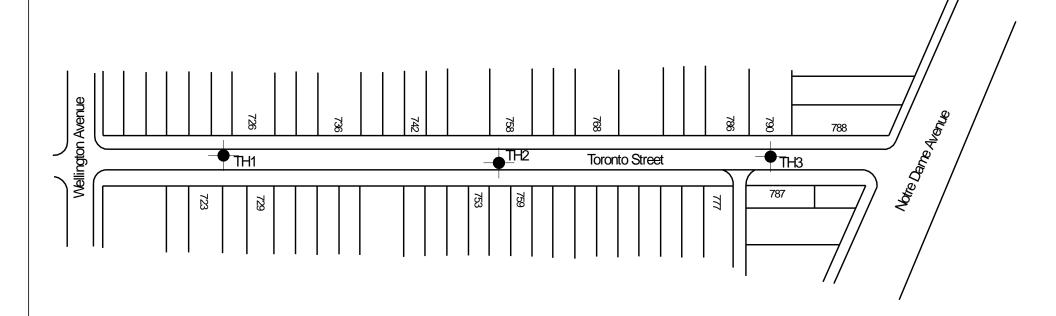
Client: Stantec Consulting Ltd.

Depth of Testhole: 2.1 m Site: Toronto Street, Notre Dame Avenue to Wellington Avenue Logged by: Kurtis Kulchyski

Testhole Location: 4.4 m S of the N property line of 790 Toronto St., 1.2 m E of the W curb

Subsurface Profile								Laboratory Testing					
Depth	Symbol	Description		0	V		(9	Con %) 60	tent 80	100			
0.0-		Ground Surface							,_				
0.0		Asphalt			-		!		!				
_		Concrete			1		1		 				
_	9000 9	Granular Fill - 20 mm maximum aggregate size			 	•	 	 	 				
0.5-		Clay Fill - brown/grey, moist, firm, high plasticity, trace fine to coarse grained sand, trace fine grained gravel			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	•							
1.0-		Silt - tan, moist, firm, low plasticity, some clay		_									
- - 1.5 – -		Clay		_	 								
-		- brown, moist, firm, high plasticity, trace silt	/		,	/	 	-	 				
2.0-		Silt - tan, moist, firm, low plasticity, some clay			•	\	 	1	 				
-		Clay - brown, moist, firm, high plasticity, trace silt	_		 		• 	 	 				
_		End of testhole at 2.1 m below grade.			 		 	 					
2.5-		No water seepage or soil sloughing were observed during or after the completion of drilling.			 		 		 				





THE NATIONAL TESTING	Project No.: STA-701	Drawn By: SD	Testhole Location Plan 2007 Regional and Residential Streets Program
LABORATORIES LIMITED Established in 1923	Date: Jan. 29, 2007	Scale: NTS	Toronto Street Notre Dame Avenue to Wellington Avenue

2007 City of Winnipeg Regional and Residential Streets Program Toronto Street Notre Dame Avenue to Wellington Avenue



